



K J Somaiya Institute of Engineering and Information Technology

**Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022**

Self Study Report



**Submitted to
National Assessment and Accreditation Council
Bangalore, India**

March 2017



**Self-Study Report (SSR)
For Institutional Accreditation**

Submitted to

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
(NAAC)**



By

K. J. Somaiya Institute of Engineering and Information Technology

(Affiliated to University of Mumbai)

Ayurvihar, Mumbai-40022, Maharashtra.

email: principal.tech@somaiya.edu

Website: www.somaiya.edu/kjsieit/

Phone: +912224061401

Fax: +912224028804



Somaiya Vidyavihar

K J Somaiya Institute of Engineering and Information Technology

(Affiliated to University of Mumbai, Approved by D.T.E. & A.I.C.T.E. (F.No. 740-89-038(NDEG)/ET/2001)

Ref. No. KJSIEIT / NAAC / 954 / 2016-17

Date: 13th April 2017.

The Director,
National Assessment and Accreditation Council,
P.O.Box No. 1075, Nagarbhavi,
Bangalore – 560072,
Karnataka, India.

Subject: Submission of self-study Report (SSR) of K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai 400022. (Tracking ID - MHCOGN27190).

Reference: Your email from capuwest@gmail.com dated 11/04/2017

Dear Sir,

We are pleased to submit the SSR, five hard copies and one soft copy (CD) of our Institute to the National Assessment and Accreditation Council, Bangalore. The Self Study Report has been prepared in accordance with the guidelines prescribed by National Assessment and Accreditation Council, for the accreditation of affiliated college.

Sr. No.	Particular	Details
1	Name of the Institute	K. J. Somaiya Institute of Engineering and Information Technology
2	Email- ID	principal.tech@somaiya.edu vice_principal@somaiya.edu iqac.tech@somaiya.edu
3	Website	https://www.somaiya.edu/kjsieit
4	A & A Fee Demand Draft No. & Date	Demand draft No. 035756 dated 11st March 2017 for a sum of Rs. 3,45,000/- (Including service tax @ 15%) of Axis Bank Ltd payable at Bangalore.

This is for your information and necessary action.

Thanking You,

Dr. S. K. Ukarande
Principal



Somaiya Ayurvihar Complex, Eastern Express Highway, Sion (East), Mumbai-400 022, India.

T R U S T

Telephone: (91-22) 24080331 Fax: (91-22) 24028804 email: principal.tech@somaiya.edu Web: www.somaiya.edu/vidyavihar/kjsieit

Table of Contents

Sr No	Particulars	Page No.
1	Preface	iv
2	Honours	vi
3	Abbreviations	xi
4	List of Tables	xvi
5	List of Figures	xx
6	List of Committees	xxi
7	Executive Summary	01
8	SWOC Analysis of the Institute	06
9	Profile of the Institute-Section B	08
10	Criterion-wise Inputs	
	Criterion I: Curricular Aspects	21
	Criterion II: Teaching-Learning and Evaluation	42
	Criterion III: Research, Consultancy and Extension	77
	Criterion IV: Infrastructure and Learning Resources	125
	Criterion V: Student Support and Progression	150
	Criterion VI: Governance and Leadership and Management	173
	Criterion VII: Innovations and Best Practices	201
11	Evaluative Report of the Departments	
	Electronics and Telecommunication Engineering	214
	Computer Engineering	238
	Information Technology Engineering	262
	Electronics Engineering	288
	Basic Sciences and Humanities Department	311
12	Declaration by the Head of the Institution	328
13	Compliance Report	329
14	Annexures	
	Annexure 1 : Minority Status Letter	330
	Annexure 2A : AICTE First Approval	332
	Annexure 2B : AICTE Increase in Intake and Extension	337
	Annexure 3 : DTE First Approval , Increase in Intake and Extension	347
	Annexure 4 : Affiliation letters from University of Mumbai	356
	Annexure 5A : Approval of Government of Maharashtra	360
	Annexure 5B : Approval of Government of Maharashtra for New Course	362
	Annexure 6 : Occupancy Certificate ,Master Plan of Campus , Floor Plans	365

Preface

“What you receive from society, give back multifold”.

Padmabhushan Puja Shri. Karamshi Jethabhai Somaiya

Shri. Karamshi Jethabhai Somaiya, our founder, envisaged the Somaiya group of Education as the ‘Nalanda’ of learning where students and teachers would live in an integral and spiritual fellowship. He lived for the betterment of society and his life exemplified the principles of simplicity and generosity. He always maintained that modern professional education must remain true to the spirit of Indian culture.

The mission of higher education is to educate, train, undertake, research and provide service to the community. K J Somaiya Institute of Engineering and Information Technology (KJSIEIT), the second Engineering College established by the Somaiya Trust in the year 2001, at Ayurvihar campus, Sion, Mumbai was set up primarily in response to the need for imparting quality education in the field of Information Technology and the allied branches of Engineering and Technology.

KJSIEIT since its inception has a definite vision, and we have been consistently working towards it. Keeping in view the Institute’s commitment towards quality education, the three elements which make this possible are physical infrastructure, technological infrastructure, and organisational infrastructure. We have constantly endeavoured to improve on these aspects.

KJSIEIT as a well-established name in the engineering education has been creating engineering professionals able to shoulder growing responsibilities and pursue emerging opportunities. The institute is self-financed and is approved by All India Council for Technical Education, New Delhi, Directorate of Technical Education, Mumbai, Government of Maharashtra State and is affiliated with the University of Mumbai, Mumbai. KJSIEIT has four disciplines namely Electronics and Telecommunication Engineering, Electronics Engineering, Computer Engineering and Information Technology to impart technical education with the intake capacity of 300. There has always been a major emphasis on making the Institute a vibrant place for learning. The Institute endeavours for the holistic personality development of its students through an array of cultural and sports events and numerous multi-skilled professional activities.

We have prepared this self-study report with the highest integrity. This report contains information about K.J. Institute of Engineering and Information Technology including the Executive summary and Profile of the Institution, Criterion-wise Evaluative



Report, Evaluative Reports of the Departments, a Declaration by the Head of the Institution and Annexures. Preparing this report has been a learning experience. It has helped us know our strengths, weaknesses and opportunities through an informed review and has given us a new sense of direction.

I take this opportunity to congratulate and thank the Management, and every person who has been involved in preparing this document. A document of this quality takes the sincere involvement and teamwork of all employees of the Institution, including the academic and administrative sections.

Principal

Honours

Institute Level



ISTE *Best Chapter Award* for the Year 2015 under Maharashtra & Goa Section on 45th ISTE National Annual Convention at HVPMS COE, Amaravati, Maharashtra on Jan 2016



Best Academic Affiliate Partner Award by International Professional Body *The Institution of Engineering and Technology*"(IET) on Sept, 2016



"An Active Local Chapter Award" by National Program on Technology Enhanced Learning (NPTEL) for the Academic Year 2015-2016.



AA Grade by NPTEL for local Chapter based on performance in NPTEL online certification courses during the period July – December 2016.



Gold Category Award for *IndPact Survey* jointly conducted by AICTE and CII for Industry linked Technical Institutes on 9th Dec, 2016



Institute has received *9th Rank* all over the India in National Level *Robocon* Contest held on 2,3,4th March 2017 and *12th Rank* in the competition in 2015 held on 5th and 6th March 2015 at Chhatrapati Shivaji Maharaj Sankul, Balewadi stadium, Pune

Institute Level



Dr. Suresh K Ukarande, Principal has been honored with "**Best Engineering College Principal Award 2017**" by ISTE Maharashtra and Goa Section in 14th ISTE Annual State Convention held at Bharti Vidyapeeth University COE, Pune on 17th February, 2017.



Prof. Vaishali Gaikwad, Asst. Prof., Dept. of Information Technology has received "**Best Promising Teacher for Student Engagement Award**" by The international Professional body, The IET, India, Mumbai LN.



Prof. Vivek Mane, Asst. Prof., Dept. of Basic Sciences and Humanities has received "**ISTE- G.S.F.C National Award for Best M.Tech. Thesis in Mechanical Engineering**" He received FIRST PRIZE in 44th ISTE Annual National Convention Thiruvananthapuram, Kerala on 27th November 2014.



Prof. Kavita Bathe, Asst. Prof. Dept of Computer Engg. was awarded in 57th Foundation Day Award on 9th Sept. 2015 by "**Chairman's Award for Interdisciplinary Projects**" at Fine Arts Society, Chembur



Prof. Vivek Mane awarded by "**Provost Award for Academic Self Enhancement**" on 57th Foundation Day Award on 9th Sept. 2015 at Somaiya Vidyavihar



Dr. Vaishali Wadhe, Asst. Prof., Dept of EXTC has received "**Chairman's Award for Outstanding Performance**" for the academic year 2013-14 by Somaiya Trust on 56th Foundation Day Award on 9th Sept 2014.



Prof. Shyamal Virnodkar has received "**Outstanding Performance in Teaching Award**" by Somaiya Trust in 56th Foundation Day Award on 9th Sept. 2014

Faculty Honours



Prof. Nilambari Joshi, Asst. Prof., Dept of Computer Engg. was awarded as “**Promising Teacher for the year 2015-16**” by Somaiya Trust on 58th Foundation Day Award on 9th September, 2016.



Dr Amol S. Deshpande, Asst. Prof., Dept. of EXTC received **First Position in the PhD Category** (Engineering and Technology) in University of Mumbai and participated in the Inter-University State level Research Convention “AVISHKAR 2015” for University of Mumbai during 21-23 Jan 2015 at Nagpur.



Prof. Harsh Bhor along with student project group has received 2nd rank at “**ISTE Maharashtra Engineering Design award**” at 19th ISTE Students National Convention held at VIT, Vellore, Tamilnadu in 2016.

Non Teaching Staff Honours



Mr .Pandurang Terse was awarded Provost Award for outstanding employee on 57th Foundation Day Award 9th Sept. 2015 at Fine Arts Society, Chembur, Mumbai .



Mr. Prabhakar Raut is a well known artist and composer who won many awards in singing competitions. He is also a Bhojpuri playback singer. He also secured 2nd position in Mumbai Idol 2005



Mr. Deepak Rawat is a playback singer in Uttarakhand. He has won many awards in singing competitions. He also has 4 music albums including one Hindi Bhajan Album with Udit Narayan



Mr. Gaikwad has been a part of state level street plays, Gadge baba swachata abhiyan and Mulgi Zali since 2005. He has done short films and drama and is the inspiration and mentor for our street play team. He has won prizes for drama and singing competitions

Student Honours



Master Harsh Daftary, BE Computer Engineering student has received

1. **International speaker at Debconf '16**, in Capetown ,South Africa representing Google Summer of Code, India
2. **Google Summer of code 2016** for “Debian working- an open source project”.
3. **Google summer of code 2017 Mentor** and guide for Mumbai Section.
4. **Invited Technical Speaker** for FOSDEM 2016 in Belgium representing India on international level.



Master Arya Shrivastava & team, TE, ETRX students have reached **Quarter Finals of Texas Instruments India Innovation Contest 2015**.



Master Mihir Maniar, TE ETRX student has received “**Outstanding Performance for the Academic Year 2013-14-Student Category**” by Somaiya Trust on 56th Foundation Day Award on 9th Sept 2014.



Master Gaurav Mishra & Raj Misal TE, ETRX has reached the finals of **ARM India Innovation Challenge 2016**. They received a special Jury award for best presentation during finals held at Bangalore on March 26 and 27th 2017.

Earlier they were also in the Quarter Finals of **Texas Instruments India Innovation Contest 2015**.



Master Sujit Singh & team ,BE, IT students reached final rounds of University Level Project Competition **AVISHKAR - 2016** (Research Convention) for “Real Time Location System Project”

Student Honours



Master Rahul Gupta & team and Master Yash Jain & team, TE, Dept of Computer Engineering have own the *1st runner-up* and *2nd runner-up* rank with prize cash of Rs.50,000/- and Rs. 25000/- price in **Mastek Deep Blue project season-2 in the year 2017 .**

Master Aditya Maharaja & team, TE, Dept of Computer Engineering have shortlisted for Mastek Deep Blue project season-1 in the year 2016.



Master Aakash Gawas ,BE, IT student shortlisted for **Zee 24 Taas Young Innovator Award 2016.** His project shortlisted from total 900 projects at Second Round in final **42** projects.



Master Aakash Gawas, Ms. Lochan Jayane, Master. Nilesh Kulkarni, BE ,Dept of IT project group has received **2 nd rank** at **“ISTE Maharashtra Engineering Design award”** at 19th ISTE Students National Convention held at VIT, Vellore, Tamilnadu in 2016.



Ms. Shivani Shivashankar, Ms. Rasika Tiwari and Ms. Mili Jain of TE EXTC reached the quarter finals of **ARM India Innovation Challenge 2016**



The streetplay team of our Institute has won accolades year after year, in various competitions all over India. They won the first prize in Mood Indigo conducted by IIT Bombay in 2015 and 2nd prize iat IIT Kharagpur. They have won first prize in four inter collegiate competitions in 2013,2014 and in six competitions in 2015. They were flicitated by the local MLA for their performance on women empowerment. They have participated in the TB Awareness Campaign” held by Indian Development Foundation at Kurla and Govandi.

Abbreviations

AC	Academic Committee
ACCS	Advanced Computing and Communication Society
ACM	Association for Computing Machinery
AICTE	All India Council for Technical Education
AMC	Annual Maintenance Contract
ARA	Admission Regulating Authority
ARM	Advanced RISC Machines
ASME	American Society of Mechanical Engineers
AY	Academic Year
B. Tech	Bachelor of Technology
BARC	Bhabha Atomic Research Center
BBC	Book-Bank Scheme
BE	Bachelor of Engineering
BoS	Board of Studies
BS&H	Basic Sciences and Humanities
CAP	Central Assessment Program
CAR	Continuous Assessment Report
CAS	Centralized Assessment Scheme / Centralized Admission Process
CAT	Common Admission Test.
CBCS	Choice Based Credit System
CBGS	Credit Based Grading System
CC	Computing Centre
CFO	Chief Finance Officer
CII	Confederation of Indian Industry
CO	Course Objectives
COEPS	Career Opportunities for Engineering Students in Public Sector
COMP	Computer Engineering
CPR	Cardiopulmonary Resuscitation
CSE	Computer Science and Engineering
CSI	Computer Society of India
CSIR	Council of Scientific and Industrial Research
CSR	Corporate Social Responsibility
CWDC	College Women Development Cell
DAB	Departmental Advisory Board
DAE	Department of Atomic Energy



DELNET	Developing Library Network
DQC	Department Quality Circle
DST	Department of Science and Technology
DTE	Directorate of Technical Education
EBC	Economically Backward Class.
EBSCO	Elton B. Stephens Company
E-Cell	Entrepreneurship Cell
ETRX	Electronics Engineering
EXTC	Electronics and Telecommunication Engineering
FDP	Faculty Development Programme
FE	First Year Engineering
GAPE	Google Apps For Education
GATE	Graduate Aptitude Test in Engineering
GB	Governing Body
GBL	Godavari Biorefineries Ltd
GC	Governing Council
GCC	Global Common Circulation
GCWCN	Global Conference on Wireless Computing and Networking
GRE	Graduate Record Examination
GVAIET	G V Acharya Institute of Engineering Technology, Badalapur, Thane
ICACCI	International Conference on Computing, Communications and Informatics
ICPC	International Collegiate Programming Contest
ICT	Information and Communications Technology
IEEE	Institute of Electrical and Electronics Engineers
IEI	The Institution of Engineers
IELTS	International English Language Testing System
IET	The Institution of Engineering & Technology
IETE	The Institution of Electronics and Telecommunication Engineers
IIC	Industry Institute Interaction Cell
IIR	Incentive international recognitions for research contributions
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
IIT-B	Indian Institute of Technology, Bombay
IJREAM	International Journal for Research in Engineering Application & Management
INUP	Indian Nano electronics User Program
IoT	Internet of Things



IPR	Intellectual Property Rights
IQAC	Internal Quality Assurance Cell
ISTE	Indian Society for Technical Education
IT	Information Technology
KIAAR	K. J. Somaiya Institute of Applied Agricultural Research, Karnataka
KJSCOE	KJ Somaiya College of Engineering, Mumbai
KJSCSC	K J Somaiya College of Science and Commerce, Mumbai
KJSIET	K.J.Somaiya Institute of Engineering and Information Technology, Sion
kVA	Kilovolt Amps
L&T	Larsen & Toubro InfoTech
LAN	Local Area Network
LCD	Liquid Crystal Display
LMC	Local Managing Committee
LSRW	Listening Speaking Reading Writing
LTA	Leave Travel Allowance
LTC	Leave Travel Concession
M. Tech	Master of Technology
MATLAB	MATrix LABoratory
MBA tech	Master of Business Administration & Technology
Mbps	Mega Bits Per Second
MCA	Master of Computer Applications
MCQ	Multiple Choice Questions
MIET	Member of the Institution of Engineering and Technology
ML	Maternity Leave
MOEF	Ministry of Environment and Forests
MOOC	Massive Online Open Course
MOODLE	Modular Object Oriented Dynamic Learning Environment
MOU	Memorandum of Understanding
NAAC	National Assessment and Accreditation Council
NBA	National Board of Accreditation
NDA	Non-Disclosure Agreement
NE	Not Eligible
NGO	Non-Governmental Organization
NICE	Nurturing Intelligence for Curious Engineers
NIT	National Institute of Technology
NMIMS	Narsee Monjee Institute of Management Studies



NPTEL	National Programme on Technology Enhanced Learning
NSS	National Service Scheme
OBC	Other Backward Class
OBE	Outcome-Based Education
ODLL	O'rell Digital Language Laboratory
OPAC	Online Public Access Catalog
OR&C	Original Research Contributing to Product Improvement
PAC	Programme Assessment Committee
PC	Personal Computer
PCB	Printed Circuit Board
PEO	Programme Educational Objectives
PL	Paternity Leave
PO	Programme Outcomes
PPT	PowerPoint Presentation
PTM	Parent Teacher Meeting
QIP	Quality Improvement Program
R&D	Research and Development
RAC	Research Advisory Committee
RAIT	Ramrao Adik Institute of Technology, Nerul, Navi Mumbai
RFID	Radio Frequency Identification
RIC	Research inputs contributing to new initiatives and social development
RIIDL	Research Innovation Incubation Development Laboratory
RP &A	Research publication and Awards
RR & RP	Recognition received by the faculty from reputed professional bodies
SBC	Special Backward Class
SC/ST	Scheduled Castes/Scheduled Tribes
SDC	Software Development Cell
SDP	Student Development Program
SE	Second Year Engineering
SGR	Student Grievance Redressal
SMS	Short Messaging Service.
sq.m	Square Meters`
ST	Schedule Tribe
STTP	Short Term Training Programme
SVV	Somaiya VidyaVihar
SWC	Student Welfare Committee
T&P	Training and Placement



TA	Travelling Allowance
TB	Terabyte
TDP	Technical Development Programme
TE	Third Year Engineering
TIIC	Texas Instruments India Innovation Challenge
TINA	Toolkit for Interactive Network Analysis
TOEFL	Test of English as a Foreign Language
TPO	Training and Placement Office
TPS	Think-Pair-Share
UGC	University Grant Commission
UoM	University of Mumbai
VESIT	Vivekanand Education Society's Institute of Technology
VJNT	Vimukta Jati Nomadic Tribe
Wi-Fi	Wireless Fidelity
WRIC	Western Region Instrumentation Centre

List of Tables

Table No.	Title	Page No.
1.1	Institute Industry Interaction Activity Summary Table	28
1.2	Details of contribution to curriculum development	28
1.3	Details of designing the curriculum within University framework	30
1.4	Internship Programmes and Certification Courses	31
1.5	Skill Development Programmes/Workshops	34
1.6	Training Programmes / Guest Lectures conducted by T&P	38
2.1	Admission quota percentage	43
2.2	Merit Marks of admitted students	43
2.3	Comparison of entry level minimum and maximum merit with adjacent colleges	44
2.4	Gender Representation	46
2.5	Category wise Admissions	46
2.6	Home University and Non-home University admissions	47
2.7	Admission through CAP, Minority, Institute level quota and ratio of seats filled	48
2.8	Knowledge gap in the curriculum	51
2.9	NPTEL details	57
2.10	Faculty details	60
2.11	Details of Expert talks organised by the Institute	62
2.12	Details of faculty deputed for staff development programme	62
2.13	Details Training programs organised by the institution	63
2.14	Details of faculty participated in external Workshops / Seminars / Conferences.	63
2.15	Details of faculty received awards/recognition	64
2.16	Jewels of Somaiya Trust	65
2.17	Final Year Result analysis	72



3.1	R&D Committee	77
3.2	Research Advisory Committee	78
3.3	Faculty members of Institute guiding PG students/ research scholar	81
3.4	Department wise involvement of faculty in research projects	81
3.5	Faculty members involved in individual research	82
3.6	Faculty members involved in collaborative research	83
3.7	Workshops/ training programmes/ sensitization programmes conducted /organized by the Institute for faculties and students	84
3.8	Competitions organised by the Institute	84
3.9	Prioritised research areas and the respective faculty expertise	85
3.10	Number of eminent personalities visited campus for different events	86
3.11	List of Faculty members who have been granted Sabbatical Leave	87
3.12	Details of the Expenditure for R&D	88
3.13	Details of seed money	88
3.14	Sponsorship for reputed competitions and student's projects	89
3.15	Laboratory cost details	89
3.16	Sponsorship for travelling allowance for Project Competitions	89
3.17	Inter-disciplinary research projects	90
3.18	List of equipment received from Industry	91
3.19	List of completed projects that received grant from industry and Institute	92
3.20	List of completed Projects that received grant from UoM	94
3.21	List of ongoing projects that received grant from UoM for the year 2016-17	95
3.22	List of Industry sponsored projects	96
3.23	List of equipment received from Industry	98
3.24	List of Laboratories	100
3.25	List of patents filed by students and faculty	100



3.26	Projects contributing to product improvement	101
3.27	Studies or surveys benefiting the community	101
3.28	Number of Papers Presented / Published by faculty members	103
3.29	List of Consultancy Projects	108
3.30	List of events organised	109
3.31	Different social and extracurricular activity fund utilisation	113
3.32	Extension Activities and donations	113
3.33	Details of Blood Donation Camp	114
3.34	Details of MOU/NDA/Internship Program Signed with Industries	117
3.35	Collaborations without formal MoUs	118
3.36	Details of Internship with Industries	119
3.37	List of equipment/ software donated by Industries	120
3.38	List of eminent speakers for National Level Symposium	121
3.39	List of eminent speakers for NPTEL awareness program	121
4.1a	Institute Facilities	126
4.1b	Extra-Curricular Activities	127
4.2	Budget Utilisation for Infrastructure Development	130
4.3	Common Facilities Available on the Campus	131
4.4	Library Advisory Committee	132
4.5	Library Details	134
4.6	Library Purchase Record	134
4.7	Weeding out Record	137
4.8	Library Specialized Services	137
4.9a	Computing Facility	139
4.9b	List of Licensed Software	139
4.9c	Annual Maintenance Contracts	143



4.10	Budget Allocation	144
4.11	Maintenance Budget Utilisation	146
5.1	Institute Scholarships.	150
5.2	State/other Scholarships.	151
5.3	Students qualified in competitive exams	156
5.4	Placement Details	158
5.5	Alumni Activities	162
5.6	Student Progression record for last four years	163
5.7	Academic Performance of Students	163
5.8	Details of Participation of Students in Sports Activities	165
5.9	Details of Participation of Students in Cultural Activities	166
5.10	Program Calendar of SURGE	167
5.11	Details of Students Achievements	167
5.12	Student Technical Publication Details	170
5.13	Details of Student Council	170
6.1	Governing Body Resolutions	188
6.2a	Employees availing welfare schemes	192
6.2b	Employees Sponsored for Higher Education under welfare schemes	193
6.3	Income and expenditure statement	194
6.4	Budget Utilisation	195

List of Figures

Figure No.	Title	Page No.
1.1	Curriculum Implementation	23
2.1	Comparison of entry level minimum and maximum merit with nearby college.	44
2.2	Pass percentage of four years result department wise	73
3.1	Year wise grant received from University of Mumbai	96
4.1	EBSCO Discovery Service	136
5.1	Structure for placement and career guidance service	157
5.2	Feedback mechanism	169
6.1	Implementation and Revision of Policies	179
6.2	Organizational chart	184
7.1a	Solar powered street lights	202
7.1b	Automation of lights	202
7.2a	Crocodile from Computer Keys	203
7.2b	Best from Waste	203
7.3	Waste to Wealth Project	203
7.4a	Swachh Bharat Abhiyan at Chunabhatti Station	209
7.4b	Hamara Station Hamari Shaan at Kurla Station	209

Governing Body

Sr. No	Members	Designation
1	Shri. Samir Somaiya Chairman	Chairman <i>nominated by the registered Society/Trust</i>
2	Shri. V. Ranganathan Hon. Secretary, Somaiya Vidyavihar Trust	Member <i>nominated by the Registered Society/Trust</i>
3	Dr Rajan Welukar, Provost, Somaiya Vidyavihar	Member <i>nominated by the Registered Society/Trust</i>
4	Dr Larry Walker Eminent Professor, Cornell University, UK	Member <i>nominated by the Registered Society/Trust</i>
5	Dr V. N. Gupchup Educational Consultant	Member <i>nominated by the Registered Society/Trust</i>
6	Dr Uday Khedker Professor IITB	Educationist <i>Nominated by Registered Trust</i>
7	Dr Abhay Wagh	Nominee of the State Govt.
8	Shri. Ramesh Unnikrishnan, Regional Officer, AICTE	AICTE-Regional officer (WR) (Ex-Officio)
9	Dr N. Sambandham, Professor, Retd. NITE, Management Consultant	Nominated by the regional office as nominee of AICTE
10	Dr Prachi Gharpure, Principal, SPIT, Andheri	Nominee of the affiliating University
11	Dr S. K. Mahajan	DTE – Director (Ex-officio)
12	Dr Suresh K. Ukarande Principal	Principal <i>as Nominee of the Trust</i> <i>Member Secretary</i>

Local Managing Committee

Sr. No.	Members	Designation
1	Shri. Samir S. Somaiya	Chairman, Somaiya Trust
2	Shri V. Ranganathan	Hon. Secretary, K. J. Somaiya Trust
3	Dr Rajan Welukar	Provost, Somaiya Vidyavihar <i>Management Representative</i>
4	Dr V. N. Gupchup	Ex- Professor VJTI and Educational consultant
5	Shri. Vishram Bapat	Director, Databyte Services & Systems <i>Member, nominated by management</i>
6	Prof. B.R Prabhu	Adjunct Professor, Father Conceicao Rodrigues Institute of Technology, Vashi. <i>Member, nominated by management</i>
7	Prof. B. K. Lande	Ex- Director, Padma Bhushan Vasantdada Patil Pratishthan's College of Engineering <i>Member, nominated by management</i>
8	Prof. D. K. Bathe	Members, Teaching Staff <i>(elected representatives of teachers of the Institute)</i>
9	Prof. Umesh Shinde	
10	Prof. Namrata Gharat	
11	Shri. Prakash Dhasade	Member, Non-teaching Staff <i>(elected representative of non-teaching employee of the Institute)</i>
12	Dr Suresh K. Ukarande	Principal <i>Member- Secretary</i>

NAAC Steering Committee

Sr.No	Members	Designation
1	Dr. S.K.Ukarande	Principal
2	Dr Sunita R.Patil	Vice Principal
3	Mrs Vrinda Ullas	Coordinator, IQAC
4	Dr Jayashree Khanapuri	HOD, EXTC
5	Dr .M.U.Nemade	HOD, ETRX
6	Mrs .Sarita Ambadekar	HOD, COMP
7	Mr Uday Rote	HOD, IT
8	Dr Harsha Mishra	HOD, BS&H
9	Mrs Kavita Kadam	O.S.

NAAC Committee

Sr.No	Members	Coordinator
1	Dr Vaishali Ghadyalji	Criteria I
2	Mrs Swati Shinde	Criteria II
3	Mrs Sheetal Jagtap	Criteria III
4	Mr Vivek Mane	Criteria IV
5	Mrs .Seema Yadav	Criteria V
6	Dr.Vaishali Wadhe	Criteria VI
7	Mrs Sandhya Kadam	Criteria VII

Executive Summary

K J Somaiya Institute of Engineering and Information Technology abides by the vision of its founder (late) Padmabhushan Pujya Shri. Karamshi Jethabai Somaiya, who established K J Somaiya Trust in 1951. The Trust now has 36 educational institutions with around 39,000 students and more than 2700 staff members catering to diverse fields of education in Science and Humanities, Engineering, Education, Medicine, Management, Mass Communication etc. The Somaiya Institutes are spread across Maharashtra, Karnataka and Gujarat. In Mumbai, there are two prominent educational campuses, one in Vidyavihar and the other in Ayurvihar, Sion

Our Institute, K J Somaiya Institute of Engineering and Information Technology (KJSIEIT), is the second Engineering Institute established by the Somaiya Trust in the year 2001, at Ayurvihar campus, Sion. It was set up primarily in response to the need for imparting quality education in the field of Information Technology and the allied branches of Engineering and Technology. The Institute endeavours for holistic development of its students through an array of cultural and sports events and numerous multi-skilled professional activities. The institute is self-financed and is approved by All India Council for Technical Education, New Delhi, Directorate of Technical Education, Mumbai in Maharashtra State and is affiliated with the University of Mumbai, Mumbai.

KJSIEIT extends over five acres of land within thirty-five acres of Ayurvihar in the heart of Mumbai city. It is housed in a G+ 8 storied building with well-ventilated and technology-enabled classrooms, well-equipped laboratories, auditorium, canteen, recreational facilities etc. The Institute intends to impart quality education in the fields of engineering and also strives for continuous improvement in facilities and infrastructure to keep it at par with the best institutions in the field of Engineering and Information Technology. Workshops and development programs are regularly conducted for the advancement of teachers and students. We follow structured learning objectives and teaching plans and monitor the outcomes. We try to be on par with the times by adopting new methods to improve the teaching-learning. Overall, the facilities provided foster creativity, innovativeness and capabilities for self-directed lifelong learning in students.

We strongly believe that while academic learning happens inside a classroom, the knowledge gained outside of the class is invaluable. We lay equal emphasis on the personality development of the student. The Institute ensures a vibrant atmosphere in the campus with selective co-curricular and extracurricular activities and gives enough opportunities for students to groom themselves into competent and capable individuals who are ready to take on challenges of the real world.

Criterion I: Curricular Aspects

We are affiliated with the University of Mumbai (UoM) and hence our focus is on the development, planning and effective implementation of the curriculum prescribed by the affiliating University. Based on the Academic Calendar and timetable, each faculty prepares date-wise Teaching Plan and the Lab Plan which is verified by Academic Committee (AC) and approved by the HODs.

There are a few subjects for which contents are added in syllabi to bridge the gap. Regular internal monitoring and external audit ensures the syllabus completion according to plan. Corrective actions are devised during HOD meetings. Many of the faculty are contributing to the development of the curriculum by the University in various capacities such as Member of Board of Studies, Member of Syllabus Revision Committee, paper setters etc.

For the curriculum development, feedback is collected from students, industry experts, etc. and the same is forwarded to the Board of Studies (BoS) and Dean, Faculty of Technology. Apart from contributing to syllabus revision, faculty members are also question paper setters in different universities and boards. Various enrichment/skill development programmes are organised for the students and staff regularly.

Criterion II: Teaching-Learning and Evaluation

The Institute is a part of the Centralised Admission Process (CAP) of Directorate of Technical Education (DTE) / Admission Regulating Authority (ARA), Government of Maharashtra. The academic year begins as per the schedule laid down by UoM. Every department takes the onus to complete the teaching and evaluation within the predefined time.

We have very good quality of faculty and all our faculty members are postgraduates. Institute focuses on effective teaching and learning processes through the intensive use of ICT-based learning. We constantly endeavour to improve our methodology and try to implement student-centric teaching methods.

Every department has defined program outcomes. Program educational objectives are also defined meeting the mission statements. At the end of every semester, faculty evaluates their course outcomes by considering direct and indirect forms of assessments. Every department maintains a program articulation matrix also to verify the mapping of course outcomes to program outcomes.

We have also implemented a very transparent assessment process for continuous evaluation. The rubrics for evaluation of laboratories and project work are communicated to the student.

We also have a very active NPTEL (National program on technology enhanced learning) local chapter. Many students and faculty have completed certification courses by NPTEL resulting in an AA grade to our Institute.

Criterion III: Research Consultancy and Extension

The Institute has an internal Research and Development (R&D) Cell and Research Advisory Committee to promote research related activities. We are recognised as a Research Centre by K. J. Somaiya Institute of Applied Agricultural Research (KIAAR, Sameerwadi Karnataka) with whom we have previously collaborated on different projects, some of which are already commissioned.

We have a well-defined research policy. The Institute has set up a separate Cell “Software Development Cell” (SDC) to undertake consultancy projects. We also have MoU with different industries for undertaking collaborative research projects and for providing internship opportunity to students. Faculty members of the institute are actively involved in multidisciplinary projects. The Institute conducts various faculty and student development programmes to develop scientific temper and inculcate research culture in the Institute.

The institute is taking continuous efforts to attract outstanding professionals from industry and academia to interact with the faculty members and students. More than a hundred eminent personalities have visited the institute in the last four years during different occasions to interact with students.

Criterion IV: Infrastructure and Learning Resources

The Institute campus is spread over 5 acres of land. Institute policy regarding infrastructure is driven by visualisation of future requirements of students, teachers and administrative staff. The physical infrastructure includes well-equipped classrooms designed for regular chalk and talk as well as multimedia teaching. Laboratories are equipped with latest equipment and library is stocked with the latest books, journals and access to e-learning/ digital resources. Library also provides Online Public Access Catalogue, to do online reservations and renewal of books and Electronic Resource Management package for e-journals. The library also has the EBSCO discovery service for online access of e-Journals.

The Computer systems are upgraded regularly and licensed software is installed as per the requirements. Wherever possible, we promote the use of Open Source software. The Institute has a high computer to student ratio and an internet bandwidth of 56 Mbps that connect all computers in the Institute to the LAN. The Institute also has a well-furnished and well-equipped air conditioned auditorium. Our sports complex consists of outdoor table tennis, outdoor chess, tennis court, AstroTurf football and football ground. There is an open gymnasium which aids in the development of physical fitness and is a stress buster after long hours spent in the classroom.

The Institute has a maintenance system for all essential available facilities. The Institute has a team of qualified assistant network administrators for maintaining computers and networking facilities and an electrician for maintenance of electrical installations.

Criterion V: Student Support and Progression

The Institute has students from diverse backgrounds. Many measures are implemented for the well-being of the students. We have implemented a Proctor system in our Institute from its inception. Every faculty is a mentor to around 20 students. Proctors keep track of the student progress and activities.

There are a variety of scholarships on offer. All students are provided with a group health insurance policy and Medical insurance. We also have appointed a psychologist who visits the Institute twice a week. The Institute has an Anti-Ragging Committee and Anti-Ragging Squad to attend to complaints regarding ragging and there is also a student grievance cell to attend to their problems.

Students have the opportunity to interact with other institutions of higher learning /corporate/business house etc. through seminars, workshops industrial visits and internship programs. They are groomed for placements through soft skill classes and aptitude tests. Institute strongly promotes participation of students in co-curricular and extracurricular activities for their overall development. Mentoring and financial aid are provided to students participating in prestigious competitions. Laboratories and Institute premises are available to students for preparations beyond college hours.

We also maintain strong ties with our alumni and solicit their support for seminars and workshops. The institution has a registered alumni association. We have a vibrant campus and very active student council and student professional chapters. Cultural activities are also given importance. Students are members of a few advisory committees.

Criterion VI: Governance, Leadership and Management

The Institute has clearly defined vision, mission, objectives and quality policy and we are constantly endeavouring to realise our goals. There are systems in place to ensure efficient governance. Eminent persons from India and abroad are members of our Governing Body and advisory committees. All important policy decisions are taken through democratic measures and all decisions are communicated to the relevant stakeholders.

We strongly believe in delegation of authority and that leadership and efficiency can be nurtured by entrusting responsibility. Faculty, as well as students, are given responsibility and we aspire to groom future leaders by adopting such measures. The IQAC cell of our institute is very active and tries to ensure quality in all aspects by devising measures for improvement and we try to abide by the norms imposed by the various regulatory authorities like the University and NAAC.

Criterion-VII: Innovations and Best Practices

Over the last 16 years, Institute has acquired various strengths and opportunities



through innovations and best practices in the Institute. We are doing our best to make our campus environmentally friendly. The institute has not only adapted these practices but has also tried to create awareness about them among our students and faculty. Our constant efforts have resulted in many reforms in academics, teaching-learning, library, industry-institute interaction and administration. Computerization has enabled us to adopt a nearly paperless administration.

We consider the reforms which we have adopted in teaching learning and our disbursement of Institute Social Responsibility as our two bests practices.

SWOC Analysis

Over the last 16 years, the Institute has acquired a number of strengths owing to the vision of the Management and the relentless efforts of its employees. The major strengths and weaknesses of the Institute are given below.

STRENGTHS:

Since its inception, over the past 16 years, the Institute has reinforced its strengths while adhering to the vision of its Founder as well as the relentless efforts of its employees. The major strengths of the Institute have been mapped across five dimensions listed below as:

1. **Management:** Strong and supportive Management which has a progressive view and the holistic growth of its students and staff as the prime focus.
2. **Faculty:** Well qualified and experienced faculty with diverse specialisation. Out of 73 permanent faculty members, 72 are approved by University of Mumbai. 10 faculty members hold a doctorate degree and 08 faculty members are pursuing PhD. Institute provides constant support and encouragement to enhance their skill sets to become up-to-date with recent technologies.
3. **Infrastructure:** Institute has well-equipped laboratories with high-end equipment, software tools, a very high computer to student ratio, and internet facility (56 Mbps). Our campus with its facility like football grounds, tennis court, open gymnasium, AstroTurf football court etc. is an exception in a city like Mumbai where availability of land is at a premium.
4. **Use of ICT:** Teaching and learning process through the effective and intensive use of ICT is one of the best practices of Institute. Many faculty members and students supplement their knowledge by attending MOOCS like NPTEL and Coursera. Learning management systems like Google Classroom, Interactive/ Smart classroom facility, and *offee tool* for smart learning is available.
5. **Social responsibility:** To enrich lifelong learning experience of students institute is very active in cultivating social responsibility amongst students through regular social activities such as blood donation camps, training to rural children, Swachh Bharat Abhiyan, beautification of railway station, road safety, green club, helping hand, voter's awareness drive, adopting villages, donation drives etc.

WEAKNESSES:

- Shortage of research publications in peer-reviewed journals.
- Shortage of major research grants, consultancies and patents.
- Non-Residential Campus

OPPORTUNITIES:

- Development and growth in research activities by starting postgraduate and PhD programs.
- Interdisciplinary research and development activities.
- Increase in Industry Institute Interaction through MoU with reputed institutions and premier industries.
- Increase the Alumni base.

CHALLENGES:

- Placements in core companies
- Market driven admissions in selected branches is hampering the quality of students in a few branches.

Today we are counted as one of the best engineering colleges in the region and a preferred Institution. A few years from now, we would like to be a well-known institution across the country

SECTION B: PREPARATION OF SELF-STUDY REPORT

1. Profile of the Affiliated / Constituent College

1. Name and Address of the College:

Name :	K.J Somaiya Institute of Engineering and Information Technology		
Address :	Somaiya Ayurvihar complex, Eastern Express Highway, Sion (E)		
City : Mumbai	Pin : 400022	State : Maharashtra	
Website :	www.somaiya.edu/kjsieit		

2. For Communication:

	Name	Telephone with STD code	Mobile	Fax
Principal	Dr. S. K. Ukarande	O:022-24061401 R:--	9820555761	022-24028804
	Email:	principal.tech@somaiya.edu		
Vice Principal	Dr. Sunita Patil	O:022-24061402	7718829820	
	Email:	vice_principal@somaiya.edu		
Steering Committee Coordinator	Prof. Vrinda Ullas	O:022-24061417	9819181645	
	Email:	iqac.tech@somaiya.edu		

3. Status of the Institution:

- Affiliated College
- Constituent College
- Any other (specify)

4. Type of Institution

a. By Gender

- i. For Men
- ii. For Women
- iii. Co- Education

b. By Shift

- i. Regular
- ii. Day
- iii. Evening

5. Is it a recognized minority institution?

- yes
- No

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

Gujarati Linguistic
Minority
Annexure 1

6. Sources of funding:

- Government
- Grant-in-aid
- Self-financing
- Any other

7.

a. Date of establishment of the college:

30th June 2001
(Annexure 2A)

b. University to which the college is affiliated /or which governs the college (If it is a constituent college)

University of Mumbai,
Maharashtra
(Annexure 4)

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)	NA	NA
ii. 12 (B)	NA	NA

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
AICTE	First AICTE letter of approval	30 th Jun 2001	2001-2002	Approval renewed annually by submitting required documents <i>Annexure 2A</i> <i>Annexure 2B</i>
	AICTE Letter regarding Extension of Approval for A.Y. 2016-17.	5 th April 2016	2016-2017	
Directorate of Technical Education	First DTE letter of approval	8 th July 2001	Extended as per AICTE Approval of Extension	<i>Annexure 3</i>
University of Mumbai	First letter of affiliation	11 th October 2001	2001-2002	<i>Annexure 4</i>
	Extension of affiliation for 16-17	6 th June 2016	Valid for A.Y. 2016-17.	
Government of Maharashtra	Letter No. पी इ सी - २००१ / (३६१ / ०१) तांशी दिनांक १२ जुलै २००१ Letter No. टि इ सी- २००४/(२३५-०४) तांशी१(भाग २)	12 th July 2001 And 28 th Jun'2004 (for additional programme)	NA	<i>Annexure 5A,</i> <i>Annexure 5B</i>

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes No

If yes, has the College applied for availing the autonomous status?

Yes No

9. Is the college recognized?

a. By UGC as a College with Potential for Excellence (CPE)?

Yes No

If yes, date of recognition: (dd/mm/yyyy)

b. For its performance by any other governmental agency?

Yes No

If yes, Name of the agency and

Date of recognition: (dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location *	Urban
Campus area in sq. m	20234.3 sq.m
Built up area in sq. m	9918 sq.m

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

Auditorium/seminar complex with infrastructural facilities

Auditorium is fully air-conditioned, with 400 student / staff capacity , with tired seating

Sports facilities

★ play ground

★ swimming pool

★ gymnasium (open gymnasium)

K J Somaiya Institute of Engineering and Information Technology is very much keen to create an awareness about physical fitness among the students as well as staff members and motivate them to be physically fit. To achieve this objective institute has developed a football ground, one AstroTurf Ground, Open Tennis Table, outdoor chess and Open Gymnasium, volleyball court, roller skating, cycling etc. We conduct annual sports festival for students and intercollegiate competition between the Trust’s institutes for staff. The trust has a sports academy, and coaching is available on request <https://sportsacademy.somaiya.edu/aboutus.php>

Hostel

There is common hostel facility in Vidya Vihar for all the outstation students in the campus. There are two hostels for with capacity for 408 girls and 524boys on a three/four sharing basis. The rooms have storage facility, study table, hot water, and 24*7 Internet. The hostel has indoor games, Mess facility, gymnasium, library etc. The inmates can utilize all the outdoor sports facilities available in the campus. One of the hostels has air conditioned rooms reserved for guests.

Boys hostel

★ Number of hostels 2

★ Number of inmates 19

Girls hostel

★ Number of hostels 2

★ Number of inmates 06

Working women’s hostel

★ Number of inmates

★ Facilities(mention available facilities)

Residential facilities for teaching and non-teaching staff (give numbers available cadre wise

On the Vidya Vihar campus there are 25 flats which may be allotted to teaching or nonteaching staff of all institutes under the Trust on request.

Cafeteria

Health centre(First aid, Inpatient, Outpatient, Emergency care facility, Ambulance)

Health centre staff

★ Qualified Doctor: Full time: Part-time:

★ Qualified Nurse: Full time: Part-time:

★ K J Somaiya Hospital is in the same campus of K.J Somaiya Institute of Engineering and Information Technology. Hospital is owned by same management, all the medical facilities of Hospital are available for staff and students at concessional rate.

Facilities like banking, post office, book shops

★ We have a small stationery store with Xerox facility

★ ATM on Ayurvihar campus

Transport facilities to cater to the needs of students and staff

★ Chunabhatti railway station , Sion station and Bus Stop are at walkable distance

Animal house

Biological waste disposal

Generator or other facility for management/regulation of electricity and voltage

Solid waste management facility

Waste water management

Water harvesting

12. Details of programs offered by the college (Give data for current academic year)

Programme Level	Name of the Programme / Course	Duration	Entry Qualification	Medium of instruction	Sanctioned / approved Student strength	FE students for 2016-17	No. of students admitted (FE+SE + TE+BE)
Under-Graduate	EXTC	4	HSC	English	120	108	560
	COMP	4	HSC	English	60	66	304
	IT	4	HSC	English	60	68	309
	ETRX	4	HSC	English	60	38	262



13. Does the college offer self-financed Program?

★ Yes

★ If yes, how many?

4

★ Institute is self-financed institute.

14. New programs introduced in the college during the last five years if any?

Yes No Number _____

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programs like English, regional

Faculty	Departments (eg. Physics, Botany, History)	UG	PG	Research
Science	NA	NA	NA	NA
Arts	NA	NA	NA	NA
Commerce	NA	NA	NA	NA
Any Other(Specify)	Electronics and Telecommunication	Yes	--	--
	Computer Engineering	Yes	--	--
	Electronics Engineering	Yes	--	--
	Information Technology	Yes	--	--

16. Number of Programs offered under (Program means a degree course like BA, BSc, MA, M.Com...)

- a. Annual system --
- b. Semester system
- c. Trimester system --



17. Number of Program with :

- a. Choice Based Credit System 04
- b. Inter/Multidisciplinary Approach ---
- c. Any other (specify and provide details) ---

18 Does the college offer UG and/or PG programmes in Teacher Education?

Yes No

If yes,

a. Year of Introduction of the program(s).....NA..... (dd/mm/yyyy) and number of batches that completed the program

b. NCTE recognition details (if applicable)
Notification No.: NA.....
Date: NA (dd/mm/yyyy)
Validity: NA

c Is the Institution opting for assessment and accreditation of Teacher Education Programme separately?

Yes No

19. Does the college offer UG or PG programme in Physical Education?

Yes No

If yes,

a. Year of Introduction of the program(s).....NA..... (dd/mm/yyyy) and number of batches that completed the program

b. NCTE recognition details (if applicable)
Notification No.: NA.....
Date: NA (dd/mm/yyyy)
Validity: NA

c Is the Institution opting for assessment and accreditation of Physical Education Programme separately?

Yes No

20 . Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government <i>Recruit</i>	02	02	00	00	25	44	34	10	12	12
© <i>Yet to recruit</i>	00	00	00	00	--	--	--	--	--	--
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	--	--	--	--	--	--	--	--	--	--
<i>Yet to recruit</i>	--	--	--	--	--	--	--	--	--	--

*M-Male *F-Female

© Carrier Advancement Scheme implementation is in process.

21 . Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	--	--	--	--	--	--	--
Ph.D.	02	02	00	00	02	04	10
M.Phil.	--	--	--	--	01	--	01
PG	--	--	--	--	22	39	62
Temporary teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	-	--	--	--	--	--
PG	--	--	--	--	02	03	05
Part-time teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	02	02

22. Number of Visiting Faculty /Guest Faculty engaged with the College .

02

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2012-13		2013-14		2014-15		2015-16		2016-17	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	25	14	22	13	20	09	25	09	34	11
ST	01	02	03	01	01	02	02	01	02	01
OBC	49	38	48	31	47	20	58	20	77	21
General	913	355	917	335	913	314	916	325	936	311
Others	19	17	24	16	21	13	16	15	24	18

* Other includes VJ/DT, NT, and SBC

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	268	0	0	0	268
Students from other states of India	12	0	0	0	12
NRI students	0	0	0	0	0
Foreign students	0	0	0	0	0
Total	280	0	0	0	280

25. Dropout rate in UG and PG (average of the last two batches)

UG : A. Y. 2014-15	0.9 5%
A.Y. 2015-16	1.14 %

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) Including the salary component

Rs. 17,78,51,520/1440 = 1,23,508/-

(b) Excluding the salary component

Rs. 74676960 / 1440 = 51,859/-



27. Does the college offer any program in distance education mode (DEP)?

Yes No

If yes,

a) Is it a registered centre for offering distance education programs of another University

Yes No

b) Name of the University which has granted such registration.

c) Number of programs offered

d) Programs carry the recognition of the Distance Education Council.

Yes No

28. Provide Teacher-student ratio for each of the programme /course offered (Current)

Sr. No	Stream	Teacher Student ratio
01	EXTC	1:15
02	COMP	1:15
03	IT	1:15
04	ETRX	1:15

29. Is the college applying for

Accreditation: Cycle 1 Cycle 2 Cycle 3 Cycle 4

Re-Assessment:

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re- accreditation)

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Cycle 1: (dd/mm/yyyy) Accreditation Outcome/Result....

Cycle 2: (dd/mm/yyyy) Accreditation Outcome/Result.....

Cycle 3: (dd/mm/yyyy) Accreditation Outcome/Result.....

* Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.



31. Number of working days during the last academic year. 269

32. Number of teaching days during the last academic year: 180

(Teaching days means days on which lectures were engaged excluding the examination days)

33. Date of establishment of Internal Quality Assurance Cell (IQAC) :

02/02/2015

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

AQAR (i) (dd/mm/yyyy)

AQAR (ii) dd/mm/yyyy)

AQAR (iii) (dd/mm/yyyy)

AQAR (iv) (dd/mm/yyyy)

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)

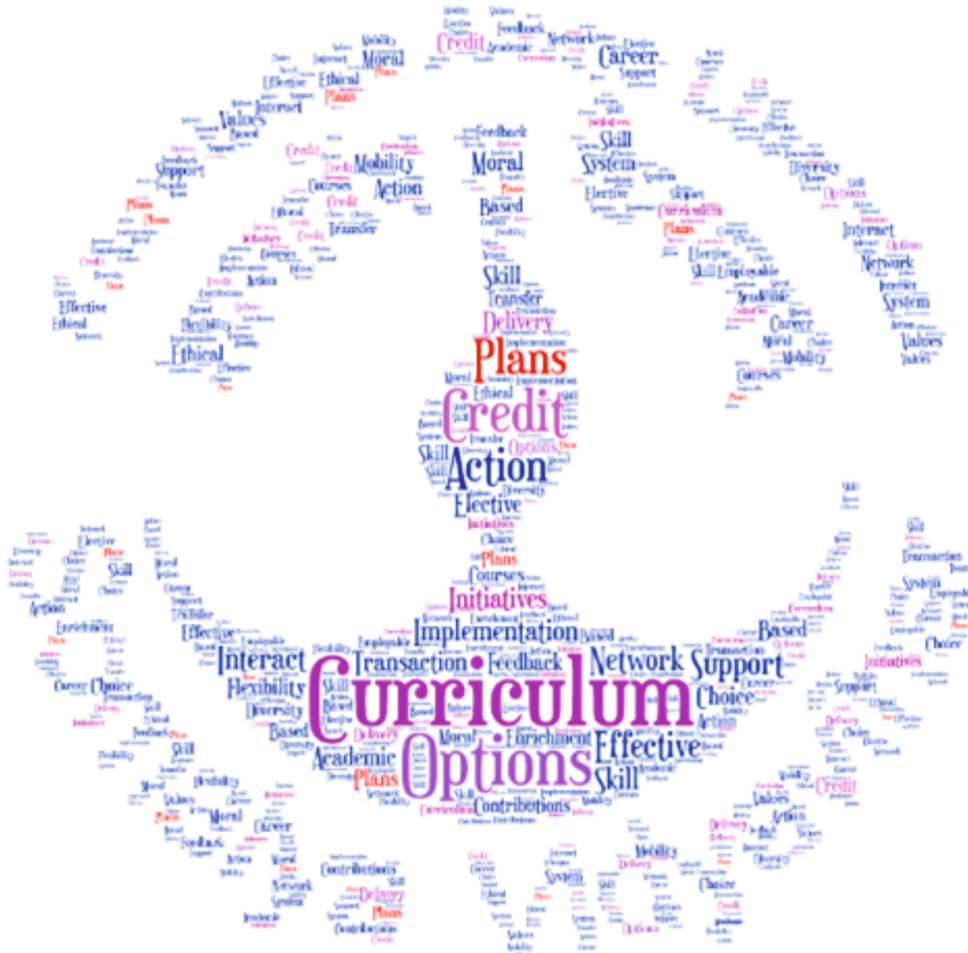
No



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Criterion-I : Curricular Aspects



CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission, and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Our Institute belongs to the prestigious Somaiya Vidyavihar Trust. The Founder of our trust is the late Pujya Shriman Karamshibhai Jethabhai Somaiya, a noted entrepreneur and philanthropist who is also a Padmabhushan awardee for his contribution to education and social work. Service to humanity is like religion for the Trust and our aim is to build a more inclusive society with access and opportunity to the less privileged. The trust strives for excellence in education. The vision and mission of our Institute are aligned with the vision of our founders. Hence our motto is:

Our Motto
ज्ञानादेवतुकैवल्यम्।
Knowledge alone liberates.

Vision

To emerge as a synonym of quality, excellence, and commitment in the field of engineering education by unlocking potential, nurturing talent and transforming young minds to create future-ready engineers.

Mission

1. To provide students with a thorough knowledge of engineering to refine their professional skills.
2. To nurture creativity and innovation while encouraging multidisciplinary interaction.
3. To train students to be industry ready and capable of working effectively as an individual and in teams.
4. To inculcate ethical behaviour, responsibility, and commitment among students.

Objectives of the Institute

- To focus on persistent improvement in processes related to teaching, learning, and evaluation and to promote a culture of research and development among staff and students.
- To develop technical and interpersonal skills so that the students translate knowledge into action contributing to the benefit of the society.
- To enhance the learning experience of students by honing versatility through diverse activities.

Quality Policy

- To conform to the requirements of regulatory authorities viz. All India Council for Technical Education (AICTE), Directorate of Technical Education (DTE) and University of Mumbai (UoM).
- To maintain transparency and fair practices in admission and recruitment processes.
- To ensure continuous evaluation and examination process.
- To ensure best academic ambience by providing high-end equipment in the laboratories, computers, learning resources and smart classrooms.
- To ensure a safe and secure environment for all stakeholders.
- To promote industry institute interaction, research, and development, placements, technical, co-curricular and extracurricular activities.

Communication with stakeholders

The above statements are communicated to the stakeholders through the following media:

- Institute website
- Boards displayed at strategic locations within the campus.
- Admission brochure
- Laboratory Journals/logbooks
- College magazine
- Institute diary provided to staff members.
- Students' Orientation programs
- Presentations during various Institute events and interactions.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through a specific example(s).

The Institute adheres to the curriculum prescribed by University of Mumbai (UoM) and has a well laid out plan to implement it as depicted in figure 1.1. The Principal, Dean Academics, Heads of Department (HODs) and Internal Quality Assurance Cell (IQAC) play a pivotal role in developing and deploying action plans as per the suggestions conveyed by Governing Body (GB) and Departmental Advisory Boards (DABs) for effective implementation of the curriculum. The process for the next semester starts at the end of the current semester itself.

Academic Planning:

Planning for the next semester is done at the end of the current semester by taking the subject choices from each faculty. This advance distribution of subjects helps for effective preparation and smooth conduction of theory and practical sessions. This also paves the way in introducing innovative teaching practices and new experiments. The subject distribution is done by taking into consideration the choices, competency and the area of expertise of the faculty. Rotation of subjects is done as per requirement. Generally, a subject is allotted to a faculty at least for three years to ensure the quality teaching.

- The Departmental Quality Circle (DQC) meeting is held to chart out the different activities to be conducted during the semester.
- The meeting of DAB, which consists of HOD, Industry representatives, Parent representative, Alumni representative and two senior faculty members of the department is conducted before the commencement of every semester. DAB acts as the primary source of external guidance for the department and provides advice, assistance and counselling for improvement.

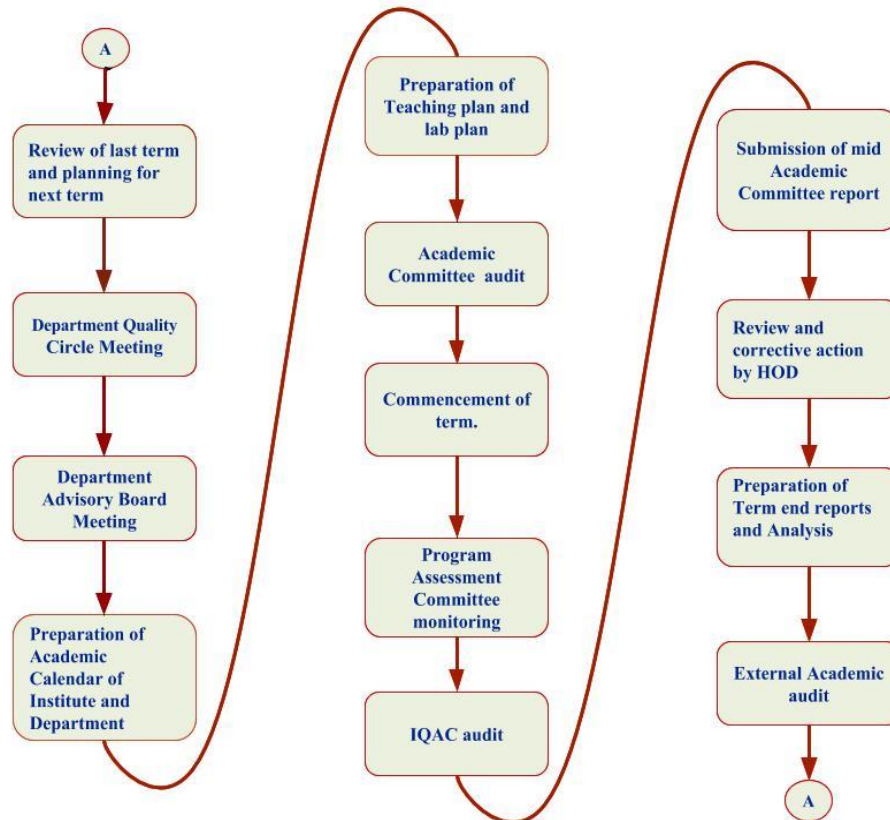


Fig. 1.1: Curriculum Implementation

- To ensure effectiveness and clarity in the teaching-learning process, the training needs of the faculty, if any, are identified and suitable training action is initiated by HOD. The faculty is encouraged to update themselves through Workshops /STTPs/ Orientation Programmes/ FDPs and Refresher Courses held in IITs, NITs, Universities and other reputed Institutes.
- The institutional academic calendar and the departmental academic calendar is prepared in alignment with the University calendar and displayed on the Institute website and departmental notice boards prior to the commencement of next semester. Departmental timetables are prepared in a common meeting of all departmental timetable coordinators under the guidance of the Dean Academics and the central timetable coordinator.

- Based on the Academic Calendar and timetable, each faculty prepares date-wise teaching plan and the lab plan which is verified by Academic Committee (AC) and approved by the HODs. Faculty also maintains detailed course files containing lesson plan, handouts, question banks, assignments and tutorials along with key solutions etc. for their subject. Faculty also shares hand-outs to the students through Google classroom.
- Model question bank is provided to students. Solutions of university examinations papers are available in the departmental library.
- The Programme Assessment Committee (PAC) monitors and evaluates the programme delivery. It also prepares periodic progress reports. Monthly monitoring reports regarding syllabus completion are collected and corrective actions are devised in HOD meetings.
- The external academic audit is conducted towards the end of the semester.
- IQAC also checks the course files for the attainment of mapping and compliance to Bloom's taxonomy.

Retrospection

- Attendance list of students is displayed on the notice board at the end of every month. The information of the same is communicated to the parents through letters/emails, SMS, and phone calls.
- Parents-Teachers meetings are conducted twice a semester; which keeps parents updated about the progress of their ward and also about the activities of the respective departments and the Institute.
- Teacher feedback from students for teaching-learning process is taken twice a semester and analysed by HOD for improving the teaching quality.
- During Parent Teacher Meeting (PTM), parents' feedback and suggestions are collected and steps are taken to comply with them.
- The progress of the students in the form of test marks, assignments, participation in extra and co-curricular activities, etc. is mapped with the course outcomes (CO). Course exit feedback is also taken and attainment of outcomes is calculated from both direct and indirect outcomes.
- An effective proctor system exists for mentoring, counselling and sorting grievances of the students.

Laboratory Preparation

- New equipment is purchased as per the requirement of the syllabus, research, and development and/or to upgrade the laboratory for research.
- Maintenance is carried out throughout the year as and when required. Calibration of measuring instruments is also done.
- Faculty prepares lab manuals of their subject well before the start of the semester.
- Intra-departmental and inter-departmental stock verification is done

Projects

- Need-based projects with innovative ideas are shortlisted for major as well as mini projects. The projects can be in-house or from any external organisation or based on student ideas.

- Three progress seminars/presentations are planned throughout the semester.
- Clearly defined rubrics are framed and communicated to the students for project presentation, implementation, and reports. Every group has to keep a log book which is monitored by the guide.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

Syllabus revision takes place once in five years at University level. Thereafter, University conducts Orientation Programs in which objectives and scope of the syllabus are introduced for all subjects of the revised curriculum.

- Institute provides funding to attend/organise orientation programs, seminars, conferences, FDPs and workshops etc.
- The Institute has provided a well-equipped library and subscription to many online journals. A Google app enables the access of these resources from anywhere. The institute has taken IIT Bombay library membership. The Institute also provides Global Common Circulation Library facility in all Somaiya Institutes. Institute also has a repository of National Programme on Technology Enhanced Learning lectures which aid the faculty in preparing for their lessons. Every Department has a Departmental Library apart from the Institute central library.
- The Institute has a higher education policy in place, and faculty is sponsored for higher education as per this policy. The faculty is allowed to apply for higher studies under the quality improvement program of AICTE.
- The Institute is providing training on pedagogical practices and effective use of Information and Communications Technology. IQAC takes the lead in organising as well as conducting such workshops and training programs.
- The Institute recognises the excellence of staff in delivering their duties by felicitating staff during Engineers' day, Teachers' day and Somaiya Trust Foundation Day for their achievements.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

Institute is committed to providing all the support required for effective implementation of the curriculum.

- Well planned academic calendar enables smooth implementation of academics, and co-curricular and extra-curricular events as per schedule. Detailed lesson plans are prepared by faculty and course material, class notes, question banks, lab manuals are made available to the students. Question paper solutions are discussed in the class and model answer papers are kept in the departmental library from where students can access them. Creative and innovative methods of teaching are adopted for the effective delivery of the curriculum.
- The Institute has mechanisms to ensure delivery and coverage of syllabus as required by the University. At the Institute level, there is the Academic Committee(AC) under the leadership of Dean Academics, which devises strategies to ensure proper delivery

and monitors the completion of syllabus. The members of the AC are members of the Program Assessment Committee of the Department. HOD and PAC obtains the monthly syllabus coverage and advises faculty to conduct extra lectures, if they are falling short of the required number of lectures. Departmental meetings are regularly held by the HODs to review the teaching-learning process, academic progress of the students and suitable remedial measures are taken as and when necessary. The Principal regularly takes a review of the departmental process. Parent-teacher meetings are also held twice a semester.

- The questions for every test/assignment are mapped with the Course Outcomes (COs) and CO attainment for subjects is calculated. After midterm, if attainment of any CO is found to fall short of expectations, remedial action is taken to overcome the shortfall. The faculty conducts a course exit survey to check the level of comprehension by the students. From this semester we have also initiated a module exit survey after every module to enable us to meet any deficiency and to help us better the system.
- The subject files are monitored by AC and IQAC. An external academic audit is conducted from the current academic year. The majority of faculty members have a Google Classroom for their respective subjects. This helps in interacting with the students after regular hours. Teaching material, videos etc. are uploaded in the classrooms, and online tests and evaluation are also done through Google Classroom.
- An effective proctor system exists for mentoring, counselling and sorting grievances of the students. Extra improvement sessions and remedial lectures are conducted to make slow learners understand the subject and be on par with the fellow students. Bridge courses are conducted for bridging the gaps in the curriculum for meeting pre-requisites of the syllabus. Additional topics are covered by the faculty to bridge the gap in the curriculum.
- Institute reviews the laboratory requirements every semester and required refurbishment and maintenance of the labs are initiated. New equipment or software is purchased as per the requirement of the curriculum.
- Smart classroom, MOOCs like NPTEL, central and departmental libraries, and sponsorship to faculty for FDP, STTP, etc. are a few more initiatives taken up by the institute for effective curriculum delivery and transaction on the curriculum provided by the University.

1.1.5 How do the institution network and interact with beneficiaries such as industry, research bodies and the university in the effective operationalization of the curriculum?

Institute is committed to meet the needs of its students as well as staff members and to shape student's careers. Many efforts have been taken in this direction and are summarised as given below:

Industry Institute Interaction Cell (IIIC)

Through the IIIC, students and faculty get an opportunity to interact and understand the trends and needs of the industries. IIIC is engaged in developing and maintaining good liaison with industries by arranging:

- Memorandum of Understanding (MoU) between Industry and Institute for live projects
- Industrial training, internships and Industrial visits.
- Seminars and guest lectures by industry experts for staff.
- Laboratory development in collaboration with Industry
- Job fair for various disciplines, consecutively for last three years

Research and Development Cell (R&D Cell)

R&D Cell facilitates interaction with external agencies for funded R&D projects and also promotes and works closely with IIC. The key role of the R&D cell is to provide a creative atmosphere in which research and development activities of the Institute will thrive.

Institute has its own Research Advisory Committee (RAC) with renowned personalities from Indian and foreign Universities and from industry as its members. R&D cell has initiated Intellectual Property Rights and is currently working on nine patents.

Software Development Cell (SDC)

SDC is a group of faculty and students of the Institute, engaged in projects and consultancy activities. The team has forayed into different areas from education, mobile based communication, agriculture to IoT. With perseverance and diligence, the team managed to take up not only in-house projects but also software consultancy projects for other organisations like Godavari Biorefineries Limited, Karnataka K. J. Somaiya Science and Commerce College, Mumbai etc. The SDC has received a Purchase Order of Rs. 40 Lakhs against consultancy for a project by Godavari Biorefineries Limited, Karnataka. The SDC has also generated a consultancy of Rs. 40,000/- from G.V. Acharya Institute of Engineering and Technology, Badlapur, UoM, by providing them with an Admission Management Software).

Training and Placement Cell (T&P Cell)

Institute has Training and Placement Committee dedicated for placements and skill development of KJSIEIT Students. It also generates leads for ensuring the interaction between Institute and Industry through the Industry-Institute Interaction Committee. The committee organises various expert lectures, short-term training sessions, Technical Seminars, Mock Interviews, Aptitude Test and Group Discussion practice sessions for students, to groom them for better placements and personality development.

Our frequent and prominent recruiters are reputed companies like Accenture, Infosys, L&T Infotech, Tech Mahindra, CSC, Ernst and Young, Bank of America, Trekbin, J Group ROBOTICS, NSE-IT, HSBC, MASTEK, Directi, AVAYA, Godrej Infotech, hp, Atos, MT Educare, Verchaska, IMRB International, Geodesic, Convonix, Avaya Globa, Systemics Solutions, Geometric Solutions along with many other companies visit the campus for placements.

All the above efforts have resulted in MOUs, internships and other collaborations summarised below in Table 1.1. As the result of all the integrated efforts by the

Institute, it is placed in the **GOLD** category in the fifth edition of the **IndPact survey** jointly conducted by AICTE and CII (Confederation of Indian Industry) for industry linked technical institutes in 2016. The certificate was received at the program conducted in New Delhi from 8-9 November 2016.

Table 1.1: Industry Institute Interaction Cell Activity Summary

Activities	No. Till date
MOU	14
Research Projects with Industry	10
Lab Set Up/ gifts received	6
Guest Lecture / Seminar	63
Internship	45
Industry Visit	26

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

The majority of the faculty is contributing to the development of the curriculum by the University in various capacities such as Member of Board of Studies and Syllabus Revision Committee Member. For the curriculum development, feedback is obtained from students, parents, industry experts, etc. and the same is forwarded to the Board of Studies (BoS) and Dean, Faculty of Technology. Principal, Dr Ukarande, Dean Faculty of Technology, UoM, has initiated the process of Syllabus Revision from the academic year 2012-13 and from the academic year 2016-17 for Engineering, Pharmacy, Architecture, and Master of Computer Application. The details of the Faculty in curriculum development are furnished in Table 1.2 presented below:

Table 1.2: Details of contribution to curriculum development

Sr. No	Name of faculty members	Year/Branch	University/ Institutes
01.	Dr Suresh K. Ukarande	B.E. (All Branches) M.E. (All Branches)	Dean faculty of Technology, Chairman, BoS, Civil Engineering UoM, Academic council member Management Council, Senate Standing Committee and Board of Examinations- Member

02.	Dr Sunita Patil	B.Tech, M.Tech Computer Engineering	SNDT University Mumbai, UoM
		MBA Tech.(ME Sem I) Computer Engineering	NMIMS, Mumbai
		BE and ME COMP Engg.	BoS member Shivaji University, Kolhapur
03. 04. 05. 06. 07.	Dr.Harsha Mishra Prof. Rajesh Meshram Dr.Vaishali Ghadyalji Dr.Umesh Shinde Prof. Kirtikumar Patel	FE/All	UoM
08. 09. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.	Prof. SaritaAmbadekar Prof. Uday Rote Prof. MansingRathod Prof. Nasim Sheikh Mrs. Shyamal Virnodkar Mrs. Mrunali Desai Mrs. Kavita Bathe Mrs. Jyoti Wadmare Mrs. Chitra Bhole Mrs. Nisha Vanjari Mrs. Jignasha Dalal Mrs. Shubhada Labde Mrs. Nilambari Joshi	SE,TE,BE Computer Engineering	UoM
21. 22. 23. 24. 25. 26. 27. 28.	Prof. MilindNemade (Convener-Digital Circuit Design) Dr.Jayshree Khanapuri Prof Vrinda Ullas Prof. MartandJha Prof. Kiran Rathod Prof. Pankaj Deshmukh Prof. Sejal Shah Prof. Sarika Bhosale	SE,TE,BE EXTC/ETRX	UoM

Apart from contributing in syllabus revision, Faculty also plays an important role as question paper setters in different universities and boards such as UoM, NMIMS, KJCOE and Govt. Polytechnic Bandra (E), Mumbai.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process ('Needs Assessment', design, development & Planning) and the courses for which the curriculum has been developed.

We are affiliated to the UoM and follow the curriculum provided by the university. We are not developing curriculum for any other course other than the regular subjects

offered by the University. However, wherever the depth of coverage was not clearly mentioned/ understood, we have added to the curriculum to bring clarity.

The process followed: The units to be added is identified by the faculty based on own experience, the comparison with the syllabus of esteemed institutions like IIT and feedback from students which may be oral feedback obtained in class or written feedback given by students. Once the module is decided, then the contents and laboratory experiments, if any, are discussed with teachers teaching the same subject (in the case of multiple divisions having same subjects) and the hard copy of lesson plan is approved in DQC meeting.

1. Subjects for which contents are added in syllabi:

There are many subjects for which contents are added in syllabi to bridge the gap. Sometimes laboratory sessions are also conducted on these additional modules.

2. Subjects for which content is developed:

Communication Skills:

The ability to communicate information accurately, clearly and as intended, is a vital life skill. Practice makes one perfect. A special module was designed for SE and BE (FE and TE have it in the University prescribed curriculum) students for polishing their Communication Skills so that they are well-groomed for Campus Placements and even as professionals. The details of designing the curriculum within University framework are provided in the following Table 1.3.

Table 1.3: Details of designing the curriculum within University framework

Sr. No.	Semester and year	Department	Subject	Important Modules Theory/Practical
1.	TE Sem V	ETRX	Mini Project-I	PCB Design and Testing, LaTeX
2.	TE Sem VI	Electronics	Mini Project-II	Problem Definition Algorithms Embedded C Development board design Industrial Visit Poster Presentation
3.	TE Sem V	EXTC	Mini Project-I	PCB Design and Testing Antenna Designing software. Wireless Networks. Poster Presentation.
4.	TE Sem VI	EXTC	Mini Project-II	Poster Presentation.

1.1.8 *How does institution analyse/ensure that the stated objectives of the curriculum are achieved in the course of implementation?*

- All faculty members prepare detailed lesson plan with clearly stated outcomes. They also map their course outcomes to the program outcomes. Each and every test or assignment is also mapped with the COs satisfied. CO attainment for subjects is calculated using an excel tool provided by IQAC. After the first internal assessment test, if attainment of any CO is found to fall short of expectations, remedial actions are taken to overcome the shortfall.
- Course Exit Surveys are conducted for all courses at the end of the semester and the programme exit survey is collected at the completion of the programme to obtain a feedback on the relevance of the courses and the activities which are most productive. These surveys enable the Institute to analyse the mapping of objectives with the outcomes.
- At department level Program Educational Objectives (PEOs) are mapped to the mission to ensure that our mission statements fulfil the objectives. PEOs are also mapped to Program Outcomes (POs) and Program Specific Outcomes (PSOs). A program articulation matrix is also prepared, which indicates the attainment of the stated outcomes of the department. The process gives us a clear idea of the outcomes we are falling short of. The DQC devises mechanisms to overcome the shortage. The proposals are in turn approved by DAB.

1.2 Academic Flexibility

1.2.1 *Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.*

The Institute offers various Certificate and Skill development courses of minimum one-week duration, which helps the versatile development of the student. The focus is not only on academics but also on the value-based, psychological, and skilful grooming of the students to help them in building their career and professional life.

Objectives: The goals and objectives of the various certificate courses arranged by us are to introduce the students to the latest technology prevalent in the industry. This is giving an opportunity for the high achievers an opportunity to go beyond the syllabus and update their skills. The courses are a value addition to their resume and go a long way in making them industry ready.

Department-wise details of such programs are provided in the following Table 1.4:

Table 1.4: Internship Programmes and Certification Courses

Department of Electronics and Telecommunication Engineering		
Sr. No	Date	Details
1	07/07/2015 to 15/07/ 2015	Summer internship programme on "Raspberry pi"
2	30/06/2015 to 07/07/2015	Summer internship programme on "Quadcopter"

3	06/07/2015 to 12/07/ 2015	National Summer internship programme on "Arduino"
4	30/06/2014 to 9/07/ 2014	Workshop on Robotics and Embedded System under IEEE
Department of Computer Engineering and Information Technology		
1	15/06/2015-23/06/2015	Microsoft certification courses (MTA)
Department of Electronics Engineering		
1	15/06/2015 to 10/07/2015	STCC on "Digital System Design Using HDL" Organised by CDAC
2	6/07/2015to 13/07/2015	Workshop on "Arduino Development"

1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If 'yes', give details.

No.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond.

- ✓ *Range of Core / Elective options offered by the University and those opted by the college*
- ✓ *Choice Based Credit System and range of subject options*
- ✓ *Courses offered in modular form*
- ✓ *Credit transfer and accumulation facility*
- ✓ *Lateral and vertical mobility within and across programmes and courses*
- ✓ *Enrichment courses*

The Institute encourages students to opt for student-exchange programs and to participate in prestigious competitions. We are bound by the rules of UoM and the only flexibility we can offer is a concession with respect to attendance requirements and rescheduling in-semester exams in case students participating in such programs are affected by it.

✓ *Range of Core / Elective options offered by the University and those opted by the college*

Registration for the core subjects is mandatory as per the curriculum prescribed by UoM. The students can choose elective subjects offered in the curriculum prescribed by the University. The Institute gives the option of many elective subjects, provided a sufficient number of students opts for the same. For EXTC, IT and ETRX branches electives are offered in the final two semesters. For COMP branch electives are available from VI semester onwards.

✓ ***Choice Based Credit System and range of subject options:***

The Institute is affiliated to the UoM, and from the academic year 2016-17, the choice based credit system is implemented for FE. It will be implemented progressively in SE, TE and BE

✓ ***Courses offered in modular form:***

We implement the syllabus offered by the University of Mumbai.

✓ ***Credit transfer and accumulation facility:***

The credit transfer and accumulation is available only at the end of the first year as per UoM rules and regulations. If a student wants to transfer from other University to UoM, additional courses are recommended by UoM for meeting the equivalence of the courses.

✓ ***Lateral and vertical mobility within and across programmes and courses:***

The syllabus for the first year of engineering degree is common for all branches. At the end of the first year, the students can opt for a change in a branch of study provided that there is a vacancy available in that branch and it is based on merit. BE degree is has a fixed duration of four years in UoM.

1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

- The Institute is a self-financed institute affiliated to UoM and approved by AICTE.
- Admissions to all UG Programs are conducted according to Director of Technical Education (DTE) rules and regulations the details of which are available at www.dte.org.in.
- Curriculum for each Program is designed by the Board of Studies of the related branch, UoM according to the university norms. Details of the same are available on www.mu.ac.in)
- The tuition fee is charged as prescribed by the Fee Regulating Authority, Maharashtra State and UoM rules and is subject to revision. Details are available on www.sssamiti.org.
- The institution has appointed well qualified, experienced faculty members who possess good subject knowledge. Appointments are done on the basis of UGC and AICTE norms (www.ugc.nic.in and www.aicte-india.org)
- The salary is pertinent to the UGC and AICTE norms. It is as per sixth pay scale

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Training and Placement committee of the Institute conducts various Training sessions for the SE, TE and BE students to groom them for the corporate career. The committee also organises various expert lectures, Technical Seminars, Mock Interviews, written Test, Group Discussion practice sessions, etc for various aspects of skill development. Few of the sessions conducted are as follows, “How to Prepare for Campus Interview”, “Vedic Maths for Aptitude Test Preparation”, “Roles Available for Fresh Engineers and the Requirement for Each Role”, “Areas of Possible Help to KJSIEIT, Sion” at M/s Build App Solution, Kalyan West, Company visit to PRDXN, Wagale Estate, Thane, etc.

In addition to the certificate courses mentioned in Table 1.4 Additional workshop also conducted as mentioned in Table 1.5.

Table 1.5 Skill Development Programmes/Workshops

Department of Electronics and Telecommunication Engineering		
Sr. No	Date	Details
1	06/04/2016 & 07/04/2016	Level - II Wireless Robotics
2	16/03/2015 to 20/03/2015	MATLAB Workshop
3	05/10/2015	National Symposium On Evangelizing Internet of Things(IoT)
4	07/08/2014 to 08/08/2014	Workshop on microcontroller
5	11/09/2014	Circuit Modelling
6	12/08/2014	PCB Design
7	12/09/2014	Web Designing
Department of Computer Engineering		
1	21/12/2016 to 23/12/2016	Python-Object Oriented Programming Language
2	17/9/2016	Cybercrime Investigation
3	05/10/2015	National Symposium On Evangelizing Internet of Things(IoT)
4	27/05/2015 to 29/05/2015	Workshop on "Network Security and Ethical Hacking"
5	01/12/2014	workshop on “Advanced Engineering Optimisation Through intelligent Techniques”
6	21/08/2015	Hands on PHP
Department of Information Technology		
1	17/09/2016	One day workshop on “Virtualization”

2	17/09/2016	One day workshop on “Cyber Crime Investigation” for registered students
3	08/01/2016	One Day Workshop on "NPTEL Awareness"
4	10/05/2015	National Symposium On Evangelizing Internet of Things(IOT)
5	01/08/2015	One Day Workshop on “Ubuntu Applications and Products”.
6	23/08/14	Workshop on “Web Development”
7	11/09/14 & 12/09/14	Workshop on “Android Application Development” in Association with IET
8	11/09/14	Workshop on “Cast Your Web” in Association with IET
9	22/08/2015	One Day Workshop on “Ubuntu Awareness and Network Administration”.
Department of Electronics Engineering		
1	22/09/2016 and 03/09/2016	Two-day workshop on “PCB Design”
2	27/08/2016 and 28/08/2016	Two days hands-on workshop on MATLAB
3	24/07/ 2016	Free workshop on 3D Printing Basics
4	06/08/2016	One day Workshop on “Arduino Board and its Programming
5	04/07/2016 to 05/07/2016	Two days workshop based on “Project based on Android”
6	05/03/2016	Workshop on Matlab and Simulation
7	28/01/2016	Workshop on MATLAB 15 Installation
8	17/08/2015	One day Workshop on “PCB Designing”
9	05/10/2015	National Symposium On Evangelizing Internet of Things(IOT)
10	18/01/2014	Workshop on “HAM Radio

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the course/combination of their choice” If ‘yes’, how does the institution take advantage of such provision for the benefit of students?

University does not provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education. We are encouraging students to take up NPTEL and other MOOCs etc. to supplement their syllabus.

1.3 Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programmes and Institution's goals and objectives are integrated?

- Institute organises various guest lectures and workshops by the eminent speakers on the topics related to the curriculum and the recent trends in the technology.
- Faculty delivers content beyond syllabus lecture for the additional knowledge related to the subject.
- Students are encouraged to opt for the internship in the industry in the related domain.
- Events such as paper presentations, poster presentations, symposia, etc are arranged which help students to understand and implement the concepts learned in the curriculum.
- The Institute annually organises a technical festival named “Renaissance”, IETE annual technical event “Oscillation” and “KJSIEIT- INTECH” project competition every year.
- The Institute organises various internship programmes and certification courses and expert talks by eminent speakers. Details are provided in point no: 1.2.1 in Table No. 1.4.

A Language lab has been set up to enhance the four basic principles for acquiring proficiency which in any language are Listening, Speaking, Reading and Writing or (LSRW). Various modules have been developed for developing LSRW skills amongst student. The lab utilises Oréll Digital Language Lab (ODLL) software for an interactive and cost-effective language learning platform for its students. Details of the same are given in point no.1.2.1 and Table no 1.4.

1.3.2 What are the efforts made by the institution to enrich and organise the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

- Faculty who are members of BoS or Syllabus Revision Committee of the University give their inputs to upgrade the curriculum as per the demanding needs of the industry. The concerned faculty also collects feedback from the subject teachers regarding the same.
- The experts from various industries are invited as chief guests and judges for the various competitions, who provide industry outlook to the students regarding the projects.
- Students are encouraged to do their projects based on the latest technology used in the industry. The Institute organises various seminars, workshops and development programmes for students to cope with needs of the dynamic employment market. *Please refer to point no.1.2.1 and Table no 1.4.*

1.3.3 Enumerate the efforts made by the institution to integrate the cross-cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

- 1 The Institute has framed policies regarding the gender sensitization, human rights, etc. Institute organises guest lectures by the eminent personalities from various social organisations who are working on the issues.
- 2 Various committees such as College Women Development Cell (CWDC), National Service Scheme (NSS), Green-Club, Software Development Cell (SDC) etc. work for the benefit of the society.
- 3 The Institute uses ICT for teaching-learning. GAFE and HR software takes is instrumental in implementing the concept of a paperless office.
- 4 Cultural activities such as street play, elocution, short films, etc. always focus on such social issues and educate students and society in general about the gender equality, climate change, environmental education, human rights, ICT, etc. Students Council conducts programmes which provide help to underprivileged sections of society.
- 5 Subjects in the curriculum such as Communication Skills and Business Communication and Ethics encourage the students to take up topics related to social, economic, environmental, human rights etc. for their report writing and presentation activities, which enhances their knowledge and understanding about these issues to a great extent. Faculty motivates and guides the students for researching and systematically presenting these topics.
- 6 We have an active Green Club which conducts activities creating environmental awareness. Plantation drive is organised on Independence Day and Republic Day. Saplings are planted alongside the approach road of the Institute by staff and students to make the campus greener as a part of Environmental Studies. Plastics cups are banned in the canteen. Composting of wet waste from canteen is implemented.
- 7 Institute encourages students to take up projects on socially relevant issues and provides seed money for the same. Projects are undertaken in collaboration with hospitals, and this contributes to sensitising students to problems of society.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

- ✓ *moral and ethical values*
- ✓ *employable and life skills*
- ✓ *better career options*
- ✓ *community orientation*

✓ *Moral and ethical values:*

The Institute encourages students to opt for various courses run by the Somaiya Trust which is helpful for the betterment of the moral and ethical values.

Subhashitas are displayed on the trust website; *Mangal Sandesh* and *Thought of the Day* are circulated over the Somaiya email every day, which is instrumental for moral and ethical advice, instructions in worldly wisdom and guidance in making righteous decisions.

✓ *Employable and life skills for Better career options:*

T & P cell organises aptitude tests, group discussions, mock interview sessions, guest lectures and employment counselling sessions for the students round the year. A list of the same is presented in the following Table 1.6:

Table 1.6: Training Programs/ Guest Lectures Conducted By T&P

Academic Year 2015-16

Sr. No.	Topic	Speaker	Date
1	Aptitude Cracking	Students of K.J. Somaiya Vidyavihar	30/03/2016
2	Scholarships and loans for educational abroad	Mr Manoj Patki	16/03/2016
3	Opportunities in IT fields	Mr. Bhanushali	9/3/2016
4	Project Management	Mr. Arvind Kesalkar	2/3/2016
5	Aptech Education	Mr. Sudhir Kumar Maurya	17/02/2016
6	Business etiquettes	Mr. Manoj Sai	27/01/2016
7	Gate Preparation	Mrs. Rucha Sharma	20/01/2016
8	Team Building	Mrs .Manisha Sridhar	13/01/2016

Academic Year 2016-17

Sr.No.	Topic	Speaker	Date
1	NUSSD program	Mr. K. Purandaran	9/2/2017
2	GDPI	Mr.Yati Doshi	31/08/2016
3	GDPI	Ms. Suchitra Surve	24/08/2016
4	How to prepare GDPI	Mr Rohan Rawal	11/8/2016
5	Careers in IT	Mr Dev Zala	10/8/2016
6	Placement Preparation	Mr. Ketan Gaikwad	28/07/2016
7	How to choose one's career after graduation.	Mr. Edison	13/07/2016

The committees like E-cell also provide a platform for the students to gain employment skills through various activities. In organising the technical, cultural and sports festivals of the Institute, students are allotted various responsibilities which enhance their leadership, team –building and managerial skills.

A wide range of career options is put forth in front of students through “Job Fair” organised by the Institute. Students are further encouraged to participate in the competition like ‘*Maker Mela*’, where they are exposed to the industrial world and its functionality. Table 1.4 included under Section 1.2.1 mentions the details of the Internship and certification programs organised by institutes.

✓ **Community orientation:**

- The Institute supports and participates in various social service activities through NSS, ‘*Dramebaz Club*’, ‘*Marathi Bhasha and Vangmay Mandal*’, ‘*Cyber*

Security and Research Cell’, ‘Green Club’ and ‘College Women Development Cell’ such as participation in the National *Swachh Bharat Abhiyan* and cultivating greenery on the campus, creating awareness regarding various social issues through role plays, promotion of Marathi language, gender sensitization, etc. which act as a part of community orientation.

- SDC of the Institute also participates in community orientations through the projects related to agriculture.
- The Institute observes ‘Rashtriya Ekatmata Din’ and ‘Rashtriya Sadbhavana Din’, Anti-corruption Week, Yoga Day, National Youth Day, Constitution Day, Voters’ Awareness Drive, Road Safety Week, Marathi Bhasha Din, Village adoption by NSS etc.
- Blood donation camps are organised regularly in the institute to help save the lives of the needy critical patients.
- The Institute organises annually an engineering student competition entitled ‘Nurturing Intelligence for curious Engineers’ (NICE) in association with the Institution of Engineering and Technology (IET).
- Institute has started conduction of One Day Drive every year on “Engineering Education & Awareness-ENTRANCE” for junior Colleges Engineering Aspirants. This drive helps HSC students to know about various branches of engineering, various engineering applications & career opportunities after engineering.
- Institute organises the Somaiya’s ROBO festival annually. For this, the student teams visit all schools of Somaiya Trust which are located in Tribal areas of Thane District in Maharashtra and rural area of Karnataka state. They train the school children for various levels of robotics. More than 1000 students have been trained under this activity till date.
- The Institute organised ‘*Hamara Station Hamari Shaan*’ from 2nd Oct 16 to 8th Oct 16 at Kurla station. 156 students participated in the drive and painted the station walls with the theme of Education.

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

The Institute practices an effective feedback system. Feedback is collected from various stakeholders in the form of suggestions from governing body, AC, IQAC, DAB, feedback from Alumni, etc. The institute also collects feedback from students for the teaching-learning process twice a semester. PTM is a proven method of collecting feedback from parents of students.

Suggestions for curriculum improvement usually arise from students, alumni and advisory committees. We have invited alumni for lectures based on this feedback. Improvement in industry interaction and expert lectures are a result of collective feedback from advisory committees and alumni. Student feedback mostly happens in an informal manner and is noted by the concerned subject faculty. From last year, syllabus revision is in progress in UoM and many faculty have tried to obtain feedback from peers and students orally and also by means of online forms and the suggestions are informed to the respective syllabus revision committees.

General feedback about the teaching learning process and faculty feedback is analysed by HODs and Dean Academics. HODs of the corresponding department analyse the feedback, and discuss with the concerned faculty for the improvement of individual teaching. The feedback is taken in the middle of the semester, which ensures the improvement for the remaining term. The feedback is forwarded to higher authorities if required. AC collects reports from the faculty regularly. Mid-semester reports consisting of the syllabus coverage, lecture conducted, etc. is collected and analysed by AC and reported to the HODs. HOD after discussing with individual faculty ensures the coverage of complete syllabus by making the provision of extra lectures.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The Feedback is collected from participants, the analysis is done, the scope for improvement is identified and corrective measures are taken while executing the future activities. Due to the improvement measures, the participation in enrichment programme is seen to be increasing. e.g. Increase in the participation has been observed for *Swachh Bharat Abhiyan* from number 37 to 156 over the period of one year. The enrichment programmes are monitored and evaluated by the HODs, Deans and the Principal.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The principal of the Institute who is also Dean/coordinator, Faculty of Technology, UoM, initiated the process of Syllabus Revision 2016-17 for Engineering. Many faculty members from the Institute have contributed to curriculum revision committees of UoM for various disciplines in 2012 from Academic Year 2012-13 onwards for revision of syllabus with CBGS as well as Academic Year 2016-17 for CBCS which is shown in Table 1.2 in point no. 1.1.6.

1.4.2. Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

The elaborate information of the feedback system of the institute is explained extensively in point no: 1.3.5. Many faculty members from the Institute have contributed to curriculum revision committees of UoM for various disciplines in the year 2012 (for CBGS pattern) as well as the year 2016 (for CBCS pattern) which is shown in Table: 1.2.

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)Any other relevant information regarding curricular aspects which the college would like to include.

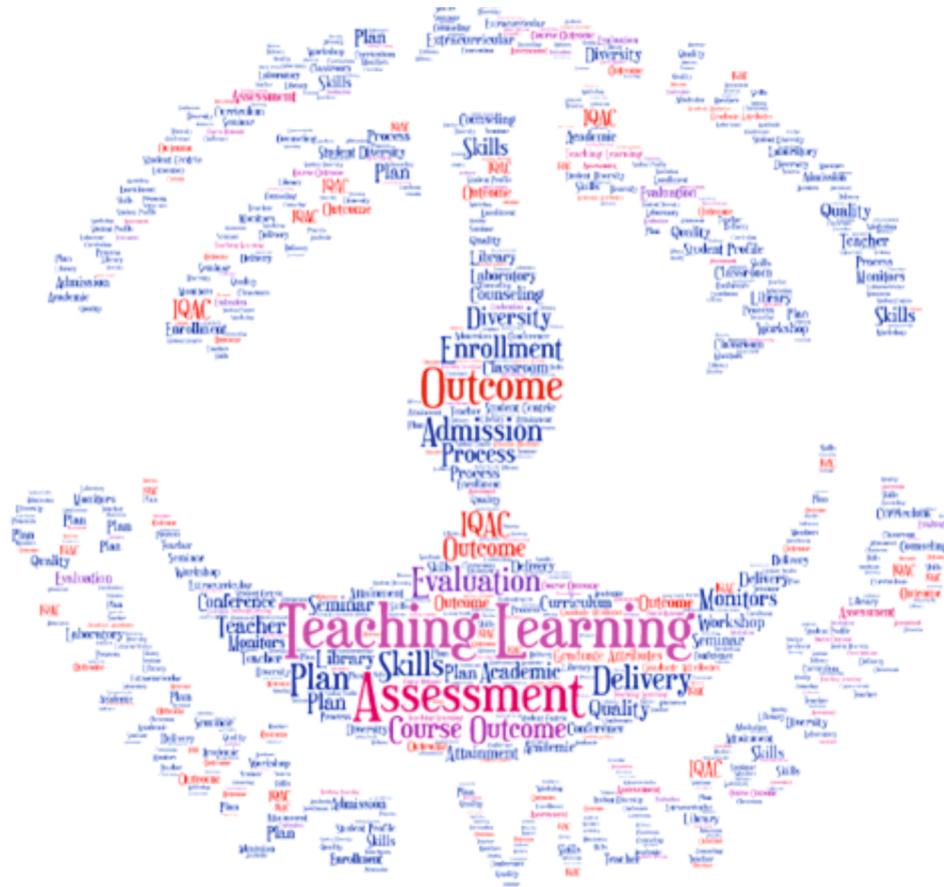
Nil



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Criterion-II : *Teaching – Learning And Evaluation*



CRITERION II: TEACHING – LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

The Institute is a part of the Centralised Admission Process (CAP) of Directorate of Technical Education (DTE) / Admission Regulating Authority (ARA), Government of Maharashtra. All the rules & regulations and admission process is made available on official website www.dte.org and also published in the form of information brochure.

Institute handles the admission to 71% of the total seats sanctioned. The remaining 29% seats are through CAP and handled by DTE. The Institute level 71% seats consists of 51% minority seats and 20% institute level quota. The admissions to both these quotas are strictly as per the norms prescribed by DTE/ARA. The process is purely based on merit. No capitation fee is availed even for the Institute level seats. The list of students who have applied are displayed on the notice boards and the admissions are offered through counselling in a well-defined and transparent manner

The admission process is as follows: Admission notification is hosted by DTE / ARA, Government of Maharashtra on their website as well as published in National News Paper (Daily). Institute advertises the admission process in leading State and National level newspapers and on college website for the institute level quota admission and vacancy if any. Institute has its own admission cell to provide information about admission matters and distribute admission brochures to parents and candidates. All admission related information is also displayed on the college website (https://www.somaiya.edu/kjsieit/admission/FE_Admissions). The students seeking admission are also informed about the admission schedule through emails and group SMS. This year, minority and institute level quota is surrendered to DTE/ARA.

2.1.2 Explain in detail the criteria adopted and the process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programs of the Institution.

The Institute participates in the centralised admission process of DTE / ARA, Government of Maharashtra. All admission rules, regulations and guidelines set up by the state government are followed strictly. Table 2.1 shows % quota of admission done by DTE/ARA/Institute

1. 51% students are admitted under Minority quota, subject to having valid score in MHT-CET of the current year as per merit intense. MHT-CET is the Common Entrance Test conducted by DTE/ARA Government of Maharashtra every year.
2. 29% students of approved intake are admitted through CAP conducted by DTE / ARA, Government of Maharashtra as per merit.

3. 20% Students are admitted under Institute level quota subject to having valid score in MHT-CET of the current year. The admission process is purely based on merit, even for Institute level quota.

Table 2.1: Admission quota percentage

Sr. No	% Quota	Particular
1	51	Minority Quota
2	29	CAP
3	20	Institute Level Quota

4. All the seats which remain vacant are also filled as per merit by following the procedure of DTE / ARA of Government of Maharashtra.
5. Every year, the admission process is followed according to instructions of DTE/ARA. If seats are vacant, they are surrendered to DTE/ARA.

2.1.3 Give the minimum and maximum percentage of marks for admission at the entry level for each of the programs offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

Table 2.2 gives the information on minimum and maximum merit marks for admission for each of the programs offered by the Institute.

Table 2.2: Merit Marks of admitted students

Programme	Year	Minimum Merit Mark (Minority)	Maximum Merit Marks (Minority)	Minimum Merit Mark (Other than Minority)	Maximum Merit Marks (Other than Minority)
EXTC	*2016-17	45	103	50	127
	@2015-16	28.19	64.37	30.55	91.39
	@2014-15	21.06	83.97	36.54	94.40
	*2013-14	53	96	69	136
	*2012-13	60	119	75.67	136
COMP	*2016-17	71	126	51	159
	@2015-16	54.56	89.33	57.11	95.4
	@2014-15	31.58	88.97	68.82	93.23
	*2013-14	70	124	77	114
	*2012-13	61	112	80.67	164
IT	*2016-17	51	120	48	140
	@2015-16	41.17	80.66	43.75	93.30
	@2014-15	44.51	82.47	48.75	92.37
	*2013-14	58	100	48	129
	*2012-13	57	96	39	124

ETRX	*2016-17	69	96	82	127
	@2015-16	42.88	72.49	17.06	91.13
	@2014-15	39.42	87.08	12.12	92.41
	*2013-14	53	91	47	125
	*2012-13	53	76	62	126

* In A. Y. 2012-13, A. Y. 2013-14 and A. Y. 2016-17, merit marks were based on MHT- CET scores.

@ For A.Y. 2014-15 and A.Y. 2015-16, the merit marks were based on the composite score calculated using HSC and JEE main scores.

MHT-CET is entrance examination conducted by DTE, Govt. of Maharashtra for admission to engineering at the state level and JEE is the Joint Entrance Examination conducted by CBSE at the national level. Table 2.3 and Figure 2.1 shows comparison of entry level minimum and maximum merit to nearby colleges.

Table 2.3: Comparison of entry level minimum and maximum merit with adjacent colleges

Programme	KJSIEIT		RAIT		KJSCOE		VJTI	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
EXTC	127	45	128	44	159	76	182	85
COMP	159	51	153	46	174	84	199	116
IT	140	48	128	45	170	60	187	90
ETRX	127	69	128	43	150	88	171	81

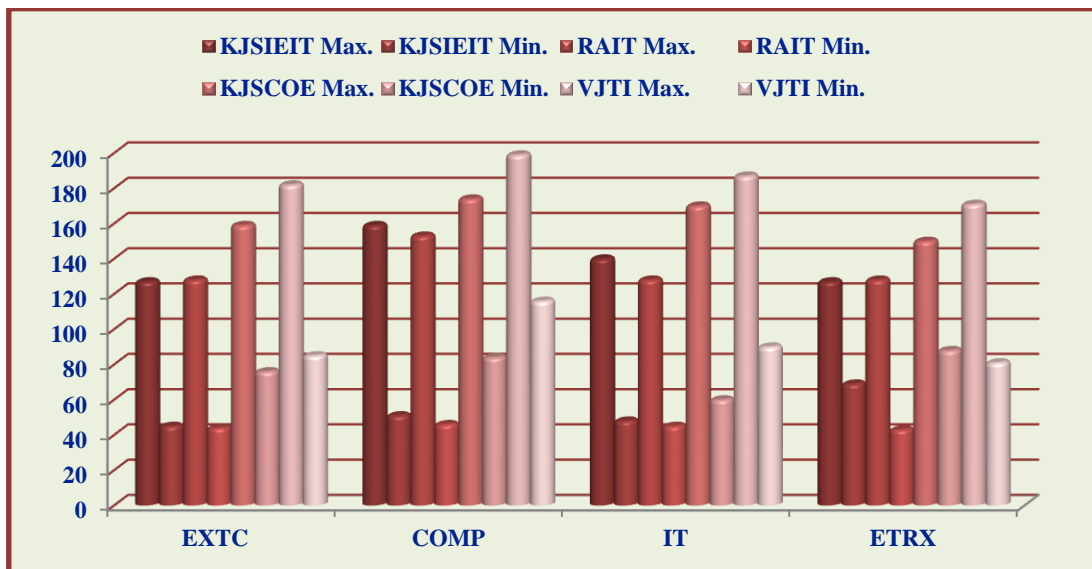


Fig.2.1 Comparison of entry level minimum and maximum merit with nearby colleges

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

The Institute has set up an Admission Cell, which is responsible for reviewing the admission process and student profile annually. The Admission Cell of the Institute collects the detailed information about the admitted students and analyses it to categorise the students on the following aspects:

- Gender representation
- Reserved Category
- Home University
- Departments

Analysis and action taken (Analysis is given in Tables 2.4,2.5 and 2.6):

- The applications/admissions from the backwards category are considerably less since the quota is decided by DTE/ARA and the Institute is minority institute (Gujarati linguistic minority).
- The institute level quota is advertised in national level newspapers and on the website. Admissions from outside Mumbai region are less owing to the lack of immediate arrangement of hostel facility. Hence we try to provide, hostel facility to the students residing outside Mumbai on a priority basis.
- The admission in EXTC and Electronics branches are reducing year by year and to counter this we have improved our advertisement strategy and introduced merit scholarships with more weight given to these branches.
- It is observed that the sets in engineering all over India engineering admissions are decreasing. So we have conducted one to one session with students of Junior Colleges across Mumbai region to attract them towards engineering. Our students have introduced engineering education and what it entails to the Junior college students. Last two years, we have invited them to participate in our Technical festival. The response has been good and we believe that such measures will attract them to our Institute.
- There are separate committees for the first year and direct second-year admission that provides constant support to the aspiring students throughout the admission process. The Institute was using an online form to collect student's data. From A.Y. 2015-16 onwards, the institute is using full-fledged software designed by the faculty members of the Institute. The software provides facilities like online form filling, online payment, maintaining details of admitted students, generating different kinds of reports and admission confirmation. This has helped in simplifying the process to a great extent for the aspirants as well as the administration.

The other efforts made to improve the quality of entry level students are beautification of campus, increased sports facilities, Institute level scholarships, digitisation of campus, close interaction between students and teacher using proctor system, increase in internships and placements through T & P and IIC.

Gender Representation –

The details of gender representation are shown in Table 2.4.

Table 2.4: Gender Representation

Programme	Year	Male	Female	Total	Female %
EXTC	2016-17	73	20	93	21.50
COMP		42	22	64	34.37
IT		51	13	64	20.31
ETRX		21	8	29	27.58
EXTC	2015-16	90	20	110	18.18
COMP		45	15	60	25.00
IT		46	16	62	25.80
ETRX		32	17	49	34.69
EXTC	2014-15	94	17	111	15.31
COMP		49	14	63	22.22
IT		32	26	58	44.82
ETRX		30	10	40	25.00
EXTC	2013-14	100	18	118	15.25
COMP		52	11	63	17.46
IT		38	25	63	39.68
ETRX		43	6	49	12.24
EXTC	2012-13	87	35	122	28.68
COMP		45	19	64	29.68
IT		41	23	64	35.93
ETRX		45	16	61	26.22

Reserved Category – The students were admitted according to DTE / ARA, Government of Maharashtra rules for categories like SC, ST, NT, Open, VJNT, etc. Table 2.5 shows the reserved category admission data for all programs.

Table 2.5: Category wise Admissions

Programme	Year	SC	ST	SBC	OBC	NT	VJNT	OPEN
EXTC	2016-17	2	0	1	4	1	0	81
COMP		1	0	1	5	0	0	56
IT		0	0	1	3	1	0	58
ETRX		2	0	0	2	1	0	24
EXTC	2015-16	4	0	0	8	0	0	97
COMP		1	0	0	2	0	0	57
IT		2	0	0	2	0	0	58
ETRX		5	0	0	6	0	0	36
EXTC	2014-15	2	0	2	10	1	0	96
COMP		2	0	0	5	0	0	56
IT		1	0	1	3	1	0	52
ETRX		4	0	0	1	1	0	33
EXTC	2013-14	0	0	2	4	2	0	110
COMP		0	0	0	3	0	0	60
IT		0	0	0	1	0	0	60
ETRX		1	1	0	1	0	0	44

EXTC	2012-13	1	0	0	2	1	0	121
COMP		0	0	0	1	1	0	62
IT		1	0	0	1	1	0	59
ETRX		1	0	0	0	0	0	60

Home University – The following Table 2.6 gives the information about the students from Mumbai University jurisdiction and otherwise for all programs.

Table 2.6: Home University and Non-home University admissions

Programme	Year	Home University /Board (Mumbai region)	Non-Home University/ Board (Non- Mumbai region)	Total
EXTC	2016-17	75	18	93
COMP		59	5	64
IT		56	8	64
ETRX		23	6	29
EXTC	2015-16	100	10	110
COMP		57	3	60
IT		56	6	62
ETRX		41	8	49
EXTC	2014-15	103	8	111
COMP		59	4	63
IT		54	4	58
ETRX		37	3	40
EXTC	2013-14	114	4	118
COMP		60	3	63
IT		60	3	63
ETRX		46	3	49
EXTC	2012-13	116	6	122
COMP		59	5	64
IT		61	3	64
ETRX		55	6	61

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion of SC/ST/OBC/Women/Differently abled/economically weaker sections/ Minority community/Any other.

Institute follows DTE / ARA, Government of Maharashtra rules for the admission of all categories of students through CAP. All admissions including Minority quota are purely based on merit.

Detailed information of various scholarships available to different category students is included in institute information brochure and also on the website. For economically

weaker sections we have TFWS (Tuition Fee Waiver Scheme), Somaiya Scholarships (Merit cum means, earn and learn scheme, women’s scholarships, KJSIEIT-Helping Hand for financially weak students), option to spread the payment of fees over a period of time, etc. The institute also provides information regarding other scholarships through college website, notice boards and personal mails. We also help prospective students to avail bank loan.

The Somaiya Hospital in the campus provides the medical facilities at concessional rates. The institute takes care of mental wellness of students through the appointed counsellor, who attends to the students twice a week.

The Institute also provides ramp and lift facility for differently-abled students. The differently abled students are given extra consideration as per rules and regulations of UoM.

The CWDC (College Women Development Cell) and Grievance Redressal Cell address the grievances of lady students and staff. It also organises different programs for women staff. The student grievance cell addresses grievances of the admitted students. The anti-ragging committee also assists newly admitted students.

The Institute also has super numeral seats reserved for students for Jammu and Kashmir, GoI, PMSSS, NEUT.

2.1.6 Provide the following details for various programs offered by the institution during the last four years and comment on the trends. i.e. reasons for increase/decrease and actions initiated for improvement.

The following Table 2.7 shows the number of students admitted to CAP, Minority, and Institute level quota and the ratio of seats filled.

Table 2.7: Admission through CAP, Minority, and Institute level quota and ratio of seats filled

Programme	Year	Intake capacity	Admitted to CAP, Minority, Institute	Ratio of seats filled
EXTC	2016-17	120	100	0.83
COMP		60	62	1.00
IT		60	63	1.00
ETRX		60	33	0.55
EXTC	2015-16	120	103	0.86
COMP		60	60	1.00
IT		60	60	1.00
ETRX		60	46	0.77
EXTC	2014-15	120	104	0.87
COMP		60	60	1.00
IT		60	55	0.92
ETRX		60	36	0.6
EXTC	2013-14	120	111	0.92
COMP		60	60	1.00
IT		60	56	0.93
ETRX		60	46	0.77

EXTC	2012-13	120	114	0.95
COMP		60	60	1.00
IT		60	60	1.00
ETRX		60	56	0.93

The reasons for increase/decrease in the admissions are as follows:

According to National and global employment scenario, the placement opportunities in EXTC and ETRX branch is reducing. The number of seats available for admission is more than the no. of applications received in the State of Maharashtra.

Action for improvement –

Admission committee members counsel the prospective students before and during the admission process. To attract eligible students from the economically poor background, no fee was collected for application forms during direct second-year admission. The Institute has initiated to provide a scholarship of 50% of tuition fee to 11 students from the academic year 2014-15 to attract bright students with an emphasis on the students taking admissions in EXTC and ETRX programmes.

Apart from institute announced scholarships, students are also made aware of the scholarships under Somaiya Trust, and other Scholarships provided by State Government and private organisations and are encouraged to apply for the same.

The Institute has adopted various measures to provide a vibrant environment to attract prospective students. Emphasis is given to the holistic development of students by encouraging them to organise and participate in curricular and extra-curricular activities.

The Institute also organises extension activity NICE in association with IET to increase awareness of higher secondary students about engineering education. The Institute also organised an extension activity “KJSIEIT One Day Drive” to make junior college students aware of engineering courses and opportunities. Through this activity, around 5000-6000 students of around 55 junior colleges were benefited. They were invited to participate in tech fest organised by the Institute.

The enrichment activities are also conducted through IoT cell, COEPS, Cyber Security cell, Robotics cell, etc. Students are also provided with a platform to work on live projects through Software Development Cell.

Subject-wise guest lectures by industry experts are regularly organised in each department subject wise to make the students familiar with latest industry trends. The students are also encouraged to participate in online certification courses provided by NPTEL, Microsoft etc. The Institute also encourages students to participate in national and international activities. The R&D Cell of the institute provides guidelines for projects and encourages students and faculty to publish papers and file patents.

Intensive training is provided to improve the placement prospects by conducting aptitude tests, group discussions and seminars during a special T&P lecture scheduled in the timetable. Value added courses are conducted in consultation with Industry during the vacation period to increase the employability of students. The IIIC facilitates industry internships & working on live projects for students.

Through these activities, we seek to improve the profile of the institute and attract academically bright students.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

The Institution caters to the needs of differently-abled students and ensures adherence to government policies. The details in this regard are as follows. The Institute follows government policies and university circulars (e.g. URL: <http://www.mu.ac.in/coebenefit102.pdf>:No.Exam/COE/Benefit/102 of 2012 which is regarding the provision of writer and extra time to those students who are differently abled.)

Rampways at the entrance and a separate lift facility with grab bars are made available for such students for easy movements. Grabs bars are also provided in washrooms. For differently-abled students, services are provided in office and library on a priority basis. Proctors of such students continuously interact with them.

As per the requirements of differently-abled students (permanent & temporary disability) institute makes special arrangements like providing writer, or extra time in internal assessment test and end semester examinations as per UoM guidelines. The attendant is also provided as per demand.

Stretchers, wheelchairs, ambulance and other medical facilities are made available, if required, from K J Somaiya Medical Institute & Hospital which is on the same campus. Institute has appointed medical psychologist who visits twice a week.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

A bridge test is conducted for first-year students to identify academically weak students and special doubt clearing/bridge lectures are arranged for them. For students from rural background/vernacular medium, communication skills lectures are arranged to improve their confidence. Teachers are appointed as proctor/ mentor for the students. The Proctors hold monthly meetings with the students and provide counselling on personal as well as professional matters. Various workshops are arranged for students to develop technical skills needed for curriculum eg. Workshops on PCB design and MATLAB.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?

The strategies adopted by the institute to bridge the knowledge gap of enrolled students to enable them to cope with the programme of their choice are as follows:

- The orientation program is held for newly admitted students and their parents to make them aware of the engineering curriculum of the first year. During the orientation programme, Principal and HOD's of various departments welcome the students and give them a brief overview of the Institute. Information about infrastructure and facilities available in the institute like a library, gymkhana, Wi-Fi, laboratories, the location of departments etc. is provided to the students.

- In the first year, a systematic gap analysis is done to identify the gaps and mitigate them. The details are given in table 2.8. The initial lectures are conducted to provide an overview of the prerequisites for every subject.

Commonly identified knowledge gaps in the curriculum are given below in Table 2.8

Table 2.8: Knowledge gap in the curriculum

Class	Course	Nature of Gap	Action Taken
FE Sem I	Engineering Mechanics	Concept of velocity, acceleration, Newton's laws, concept of forces	Included in lecture plan and assignment
FE Sem I	Engineering Mathematics-I	Basics of integration and differentiation	One tutorial is conducted in the beginning.
	Applied Physics-I	Using Scientific Calculator, basic concepts of sound, electromagnetism	Included in lecture plan wherever needed.
	Applied Chemistry – I	Concept equivalent weight, molecular weight	Covered while introducing the syllabus
	Basic Electrical Engineering	Ohms law, Faradays law, Kirchoff's law, AC and DC circuit	Covered while introducing the syllabus
FE Sem II	Engineering Drawing	Basic drawing like dividing a line in equal parts, drawing polygons etc.	Covered in the first introductory lecture
	Applied Physics-II	Basic optics concepts like reflection, refraction, Snell's law etc	Discussed in the introductory lecture
	Applied Chemistry -II	Basics of corrosion, fuels, Alloys	Covered while introducing the syllabus
	Communication Skills	Grammar, Speech practice, letter writing, vocabulary	Included in lecture plan and covered whenever needed.
	Structured Programming Approach	The basic working of PC, Basic programming concepts, programming environment, various passes during programming.	Covered in the first theory and practical session.

In addition to the above, the following measures are also taken:

- Various professional bodies, students' chapters and activities conducted by these chapters are introduced to the students.
- Overview of the curricular and extracurricular activities is provided.
- Training is provided to students weak in communication skills through language lab and communication skill lectures to enhance their soft skills, group discussion skills.
- Every year, the institute also arranges various courses/workshops on robotics, PCB designing, Arduino, Android, cloud computing, Net, MATLAB, Embedded C, LaTeX etc. to bridge the knowledge gap. NPTEL lecture videos are also made available to all students and they are motivated to join the online NPTEL courses.

2.2.4 How does the Institute sensitise its staff and students on issues such as gender, inclusion, environment etc.?

- Male and female staff members and students in the institute are treated equally with respect to gender and religion. The primary aim of CWDC is the welfare of girls and women employees. All possible measures are taken to educate staff and students on issues of gender, inclusion and environment. This is achieved through a series of planned gender sensitisation programmes, environmental programmes, cultural programmes etc. organised through CWDC, NSS, student's council, street play team, various student clubs and cells of the institute. Institute promotes harmony and inclusion through the technical festival, annual social function, sports events, Ganesh festival etc.
- Environmental Studies is one of the subjects in the curriculum of the First Year programme. Topics on gender discrimination and environmental issues are given as group discussion topics by communication skill teachers. In addition to class room teaching, environmental awareness programmes are organised through NSS unit to sensitise the students and staff members on environmental issues. All measures are adopted to maintain the campus clean and eco-friendly. Sanitary napkin vending machine and incinerator is installed in the ladies toilet. Plastic cups are banned in the institute canteen. Cleanliness drives on railway stations, beaches are arranged by NSS cell regularly. Students are encouraged to select projects which address environmental issues and issues of social relevance.
- The Green club has conducted a green audit in the Institute and plantation drives during republic day and Gandhi Jayanti. Institute has developed a butterfly garden in the campus to make the campus environmentally friendly. Ring well is available on the campus which is used for rainwater harvesting. Institute has installed composting system through which canteen food waste and organic waste in the Institute premises are converted into useful manure.
- The Institute has always been compassionate towards the underprivileged students. The Robotic Cell of the Institute provides robotics training to the tribal students and organises competitions for them. Blood donation camps are regularly organised to collect blood for blood banks. Through the Helping Hand initiative, staff and students contribute some money through which needy and deserving students are offered financial assistance. "Pragati Scholarship Scheme" and "Saksham Scholarship" are provided to girl students and differently abled students. Institute level scholarships are provided like Somaiya Women's scholarship and Merit cum Means scholarship. The street play team of the institute address various gender, and environmental issues.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

KJSIEIT teaching learning process concentrates in identifying advanced learning capabilities as well. Advanced learners are identified based on the academic performance initiatives taken by the students to solve problems, their projects and work in laboratories and their term test marks. The advanced learners are encouraged to participate in the technical paper presentation and project development competition, etc.

A few good students secure internships and opportunity to work on live projects. They are encouraged to opt for online NPTEL courses on advanced topics.

They are encouraged to participate in ROBOCON competitions, Avishakar project competitions organised by UoM, ISTE project award competition and other various project and paper presentation competitions. They are encouraged to publish research papers and file patents.

2.2.6 *How does the Institute collect, analyse and use the data and information on the academic performance (through the programme duration) of the students at risk of drop-out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?*

Bridge tests and internal assessment tests conducted for continuous evaluation are used to collect the information about academically weak students. Also information about students from downtrodden sections of society, physically challenged, slow learners, economically weaker section is collected through regular interaction between students and proctors, class teachers or subject teachers. This data is used as follows –

Physically Challenged students:

Special arrangements are made at the time of examination. A Writer is provided or extra time is allotted during the examination as per rules of UoM. Proctor of such students keeps regular contact with them. Stretchers, wheelchairs, ambulance and other medical facilities are made available if required from K J Somaiya Medical College and Hospital which is on the same campus. Services of the campus psychologist are available if required. “Saksham Scholarship” for differently-abled students as per the announcement by AICTE is provided to such students.

Slow learners:

Institute arranges extra interaction sessions for the slow-learners in the subjects like Engineering Mechanics, Applied Mathematics, Basic Electrical and Electronics Engineering and other subjects as per need, for first year engineering students as well as to higher classes also as per need. The performance of the students is shared with their parents through PTM, emails, SMSs and letters.

Attempts are made to give personal attention to such students. Notes and question banks are provided and they are guided on how to study. Most faculty members have Google classroom where notes are uploaded on a regular basis. Social media like WhatsApp groups and mailing groups are also used to counsel the students.

Economically Weaker Sections:

Various scholarship schemes of government EBC scholarship, Institute scholarship are made available to the students as per government norms. Institute provides information on various scholarships made available by various trusts like Sir J.R.D. Tata Trust, Mahalakshmi Trust, T. B. Desai Family Public Trust and by companies like Asian Paints, MTNL, LIC Golden Jubilee Scholarship through website and circulars.

Library provides Book Bank facility to economically weak students in the Institute. Through Helping Hand, staff and students of the institute, contribute some money through which needy and deserving students are benefited.

For students belonging to economically weaker section and having good academic record, KJSIEIT-Institute Merit cum Means Scholarship is awarded every year through which 50% fee concession in the tuition fee finalised by Fee Regulating Authority for the academic year is given to such students.

The institute runs Earn and Learn Scholarship scheme through which needy students are paid as per norms.

Disadvantaged Sections of society:

51% seats are reserved for Gujarati Linguistic Minority students. Minority scholarship offered by Government of Maharashtra to the students belonging to Muslim, Sikh, Buddhist, Christian, Parsi and Jain communities is implemented in the institute. SC/ST/NT/SBC/OBC students are given the benefits of various scholarships as per Government rules. Library provides Book Bank facility for SC/ST students in the Institute. Scholarship for children of the non-teaching employees having an annual income of 5 lakhs or less is provided by Somaiya trust.

2.3 Teaching and Learning Process

2.3.1 How does the Institute plan and organise the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blueprint, etc.)

The academic year begins as per the schedule laid down by UoM. Every department takes the onus to complete the teaching and evaluation within the predefined time by observing the following strategies.

- Subject distribution is done at the end of the working semester so that the staff is aware of their subject for the upcoming semester.
- The academic calendar of the Institute and department is prepared which includes academic and assessment schedule, academic and cultural events. This is done well in advance to facilitate proper planning and to make the concerned faculty aware of their responsibilities.
- During the semester break, stock verification and maintenance of equipment is carried out to enable smooth conduction of laboratory sessions. A requirement for books is also processed by the library.
- The DQC and DAB meetings are held to review and plan for the coming semester.
- The students are made aware of the timetable, academic calendar and roll list by updating the same on the Institute website and notice board a few days before the start of the semester. Class teachers are also appointed. All the information about Continuous Assessment Report (CAR) and rubrics is provided to the students at the beginning of the semester.
- The faculty prepares and updates course file which includes detailed teaching plan, and laboratory plan along with notes and other study material, university question papers along with the solution, assignment questions and their expected answers etc.

- Academic Committee (AC), as well as the HODs, ensures smooth conduction of lecture and practical. Academic audit is conducted to ensure compliance.
- Internal assessment and tutorials are conducted to evaluate student's performances. The result of Internal Assessment is analysed and mapped with the Course Outcomes. This enables faculty to adopt any remedial action.
- Attendance review is done every month. All the parents are intimated about the status of the student's performance along with their Internal Assessment marks. PTM is scheduled twice in a semester so that the parents are aware of the student's performance and also of the Institute activities. The feedback form is submitted by the parents after the meet which includes their suggestions.
- Submission schedule and exams are conducted as decided by University.

2.3.2 How does IQAC contribute to improving the teaching-learning process?

The contribution of IQAC towards teaching-learning process can be summarised as follows:

- One of the initial contributions of IQAC has been to create rubrics for assessment of project work, project presentation and project report and for laboratory work. This was felt necessary to bring regularity and uniformity in the assessment process and eliminate inconsistent allotment of marks. IQAC also created a logbook for documenting the work done and included the rubrics as part of the log book to communicate the assessment criteria to students.
- This year we improved upon the idea and included the assessment matrix as cover page for laboratory experiments. This has made the assessment process extremely transparent and also makes it clear to the student why they have been graded in a particular way.
- On the insistence of IQAC, Bloom's taxonomy is incorporated in the teaching plan and question paper.
- IQAC has provided a format for calculating the course outcome attainment.
- IQAC has also created a framework for the continuous evaluation of students according to the prescribed rubrics. This has created a transparency in the evaluation of term work.
- IQAC has advocated the creation of program articulation matrix for the departments to evaluate the attainment of program objectives.
- To enable faculty to adapt to the changes, IQAC has organised as well as conducted training programs on all the above processes and on the importance of accreditation.
- The IQAC has been instrumental in improving the use of ICT by faculty. Majority of the faculty are using Google Classrooms for teaching.
- IQAC also conducts an internal audit of course files and has made concrete efforts towards implementing outcome-based education, thereby supplementing the activities of the academic committee.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

Student-centric learning is achieved by implementing following measures:

- Hand-outs or lecture notes are uploaded on Google Classroom. Assignments for students are uploaded on Institute website or Google classroom and on departmental notice boards. NPTEL video series are made available on the Institute LAN to help knowledge enhancement and special skill development of students and staff.
- Library, internet facility and language laboratory for value addition is made available. Library timings are extended during the examination period beginning from preparatory leave. The Institute has collaboration with other libraries. The library has external memberships such as IIT Bombay, DELNET membership, IETE Life membership.
- Various field/industrial visits are arranged for the students to have industrial exposure. Group discussions, seminars, quiz contests, poster presentations, group project competitions, etc. are arranged to make the learning more interactive.
- Google classroom for individual subject has been created to have detailed and easy access to the subject related information like syllabus, lecture notes in form of PPT, lab manuals, links to technical papers and reference e-book, module exit, course exit form, multiple choice questions (MCQs) for experiments, midterm question banks etc.
- Faculty Development Programs (FDP) with resource persons from Industries, BARC, IIT's, UoM and NIT's, are organised towards the beginning of the new term to facilitate enhancing teaching skill set of faculties.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

Institution nurtures critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators. The implemented strategies are as follows:

Institute organises the events like paper presentation, art exhibitions, software development competitions, poster competitions etc. which offers a platform for students to express their creativity and soft skills. Institute also encourages and guides students to participate in prestigious competitions organised by various Institutes and IITs and industries. Participation in some of the prestigious competitions like

Robocon is substantially funded by the Institute. Students who are interested in R & D work are motivated and encouraged to present and publish their Project /Research work in different National/International Seminars/Conferences/Workshops, etc. Students are also motivated to write scientific and technical articles for Institute magazine.

- Institute is part of e-Yantra an initiative by IIT Bombay under NME-ICT scheme of MHRD Government of India. There are various other special interest groups to hone the skills of the student in esoteric areas like cyber security or Internet of Things.
- Enterprising students gain an opportunity to work in collaborative projects with industry or other institutes. Mock interviews and Group discussions are conducted under T & P cell to expose the students to the industry-centric idea. Distinguished

alumni lectures are organised to get a better idea about the recent market conditions.

- There is an active student council and chapters of professional bodies like IEEE and IET which provides students with an opportunity to work as leaders and organise festivals and other events. Some of these events are conducted on a major scale and are vital in refining their ability of critical thinking.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g. Virtual laboratories, e-learning - resources from National Program on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

The technologies and facilities available and used by the faculty for effective teaching are as follows:

- The Institute has licensed software for meeting the curriculum requirements. The computer and IT departments extensively promote and implement open source software. 90% of our systems run on Ubuntu.
- We have an extensive subscription to e-journals and it is available for all.
- The Institute has set up a 1TB archive of NPTEL lectures from 2009 onwards. It was available in the library for access by both faculty and students. We were one of the first Institutes in the region to start an NPTEL chapter in 2015. The repository of lectures has been increased to 8TB and faculty and students are constantly accessing it to clear their doubts and supplement their knowledge. Institute has been awarded AA grade by NPTEL for participation and performance in their certification exams as shown in Table 2.9 below.

Table 2.9 : NPTEL Details

Period	No Enrolled	No obtained certification	No in Elite category scoring above 80%
Jan –April 2016	60	60	11
July-Oct 2016	129	108	57
Jan –April 2017	471	Exams in April 2017	

The faculty is made aware of NME-ICT initiatives through group email facility and a few faculty members are using virtual labs for teaching. Faculty have participated in continuing education program courses by IIT Bombay. A few faculty and students have also enrolled in MOOCS by Coursera and IUCEE. Webinars organised by International Organisations such as IEEE, IUCEE IITs, TCS, etc. are made available to the students/faculty.

- We use learning management tools like Google Classroom or Moodle. Subject related notes, assignments, multiple choice questions are uploaded on Google Classroom. The multiple choice questions are evaluated online by using tools like Flubaroo. Course exit surveys and module exit surveys are also conducted online.
- We have started using Smart boards and an app cum tool *Offee – offline entertainment and education*, which is created by Somaiya Vidyavihar students in

our innovation centre RiIDL. Office enables easy implementation of active learning practices and we started using it now .

2.3.6 *How are the students and faculty exposed to an advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?*

- Institute organises expert lectures, seminars, paper presentations, project competitions, workshops, summer and winter internships to expose students and faculty to advance level of knowledge. Institute also deputed faculty for seminars, conferences, workshops, STTPs organised by other institutes.
- Institute has the students' chapters and Institutional membership of professional bodies like IEEE, ISTE, IET, CSI, IEI, IETE that organise events to introduce students to latest developments in the field.
- R& D cell and IIC facilitates various projects that enhance practical knowledge. Industrial visits and internship programmes are features which contribute to the practical enrichment.
- The Institute provides adequate funds to student and faculty for attending the relevant activities.

2.3.7 *Detail (process and the number of students \ benefited) on the academic, personal and psycho-social support and guidance services (professional counselling /mentoring/academic advice) provided to students?*

We have a very efficient mentor system; Teachers are appointed as proctor/ mentor for the students. Proctors hold monthly meetings with the students and provide counselling on personal as well as professional matters.

HODs and faculty members also counsel the students and advise them a timely basis on issues such as career guidance, competitive examinations, etc. Financially weak students approach HODs to seek financial support through Helping Hand or trust scholarships.

A psychologist is appointed by the institute to counsel students on their personal or academic issues. Since last year the psychologist has visited the Institute 56 times and 26 students have benefited by this facility.

2.3.8 *Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?*

Faculty endeavours to make lectures more student-centric by using ICT based teaching. The Faculty uploads tutorials, notes, laboratory manuals, MCQs, question bank, the solution to university question paper and study material for the students on Google classroom. Many utilise excerpts of NPTEL videos to illustrate the concepts clearly through audio/video mode. Using YouTube videos and animated clips in lectures, the learning process becomes increasingly student friendly. This process helps the learners not only to enjoy learning but also makes the lectures lively.

Some faculty has tried to implement flipped classroom model by posting short videos in Google classroom prior to the lectures. But the observation is that only highly motivated students watch these videos and participate in the discussion. Hence the experiment has not been successful to a great extent.

A few faculty members have given seminar topics to a group of students. This is found to be effective. Some of these seminars have also been uploaded on YouTube. Some have tried to implement methods like think pair shares. This is also found to be effective, but the noise level in the classroom needs to be effectively controlled.

2.3.9 How are library resources used to augment the teaching-learning process?

Any library mainly serves two purposes.

1. Sharing of expensive resources.

Teachers refer the library resources like educational CDs, reference books, textbooks, print and e- journals, and other study material for augmenting their lectures and advancing their knowledge. Library provides digital library facility and has a stock of NPTEL lecture series. Library offers external memberships such as IIT Bombay, DELNET membership, IETE Life membership.

Faculty and students are allowed to borrow 6 books. They are able to renew the books after a specified term if it is not reserved. Faculty uses the reading section of the library to refer books and journals, prepare lectures and to exchange ideas.

We have Global Common Circulation facility which allows a member of any Somaiya Institution to borrow books or use a library of any other Institution under the Trust. To fulfil their academic needs, free Book Bank facility for SC/ST students and book bank for open category students at a nominal cost is provided.

In addition to the central library, each department has its own departmental library to facilitate easy access to the faculty and students.

Library also takes initiatives to arrange book exhibitions in view of spreading awareness amongst the reader community. The list of latest arrival in the library is sent to everyone on mail.

The details of library facilities are elaborated in Criterion IV (Sub section 4.2).

2. Hub for cultural and social interaction.

The library has been arranging essay writing and other interesting competitions for faculty and students.

Library actively promotes the regional language Marathi and organises plays and guest lectures by eminent personalities and conducts activities involving all staff and students. This is a learning experience about the regional language and culture for all especially for those from other states.

Library also takes an active part in organising gender sensitisation programs.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

We have a well-planned academic calendar and monitoring and review mechanism in place to assist faculty to complete the curriculum delivery on time. In case of any unforeseen circumstances, Institute also observes some holidays and non-working

Saturdays as working days and compensates for the loss in academics. Faculty members arrange extra lectures and practical sessions as per their requirement and convenience on non-instructional days. Additional slots are fixed in the timetable for remedial lectures. It is mandatory to provide subject notes for incomplete portions if any. Students are encouraged to interact with faculty during the preparatory leave.

2.3.11 *How does the institute monitor and evaluate the quality of teaching learning?*

The Dean Academics monitors and evaluates the quality of teaching and learning through departmental monitoring committee, weekly and monthly reports on syllabus completion, academic and attendance monitoring, departmental meetings and discussion on academic assessment and evaluation, feedback analysis, effective mentor system, academic audit internal/external, module and course exit surveys, program exit surveys, CO attainment, all these activities are monitored by Academic dean. The IQAC also provides inputs regarding continuous assessment. The Principal frequently conducts a meeting with HOD and Dean Academics frequently to monitor and evaluate all the activities related to teaching-learning.

2.4 Teacher Quality

2.4.1 *Provide the following details and elaborate on the strategies adopted by the Institute in planning and Management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.*

KJSIEIT believes in selecting inspiring teachers who motivate students by innovative thinking and practical examples in their approaches. KJSIEIT follows UoM and AICTE rules for selecting its faculty. The Table 2.10 shows the faculty details.

Table 2.10: Faculty Details

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
Ph.D.	2	2	0	0	2	4	10
PG	--	--	--	--	23	39	62
Temporary Teachers							
Ph.D.	--	--	--	--	--	--	--
PG	--	--	--	--	02	03	05
Visiting Faculty							
Ph.D.	--	--	--	--	--	--	--
PG	--	--	--	--	--	02	02

The underlying principle is to maintain or better the student-teacher ratio set as prescribed by the AICTE. Strategies adopted by Institute in planning and management of its human resources to meet the requirement of the changing

curriculum are as follows:

Recruitment strategies:

- While recruiting faculty, Institute ensures faculty strength and profile as per AICTE norms. Applications are invited after the approval of the advertisement by Management and UoM from eligible candidates through advertisement in the national daily newspapers.
- The Vice Chancellor of university appoints his VC Nominee who supervises whole selection process. Management of Somaiya Trust appoints subject experts and interviews are conducted by this committee for the shortlisted candidates. Suitable candidates are selected and appointed. Recommendation report for approval of the teachers is submitted to the UoM.
- However, in the case of vacancy that arises in between two interviews conducted by the university, ad hoc interviews are conducted. The LMC forwards proposal to fill the vacant posts to the GB. After approval from GB, the advertisement is given in local newspapers for walk-in interviews. The suitable candidate is selected by a local selection committee formed by the Principal keeping in views university norms.

Retention strategies

KJSIEIT very strongly believes that knowledge of job at hand is the greatest motivator, in addition, to paying and perks offered to teach faculty and staff. The salient features are:

- Excellence is recognised by promoting Assistant Professors to the pay scale of Associate Professors. Some staff has been given additional increments based on their performance.
- Institute sponsors faculty members to attend enrichment courses, conferences, and workshops to update their technical skills.
- Faculty members are deputed to undergo ME/M Tech, M Phil, and PhD courses to enhance their academic qualifications.
- An incentive is awarded for publications in journals, conferences, and books as per the Institute policies and also financial support is provided to faculty and staff for R & D purpose.
- Female staff members are provided with maternity leave for 6 months, and paternity leave of 7 days is given to male staff.
- Medclaim, accidental policies, group insurance for non-teaching staff is available.
- The staff drawing an annual income of fewer than 5 lakhs is provided with relaxation in fees to be paid if his/her son/daughter is pursuing higher education from Institutes under the Somaiya Trust.
- Institute has an employee co-operative credit society.
- There is LTA facility for all faculty members.
- Medical concessional for non-teaching staff and check-ups for everyone at Somaiya Hospital.

2.4.2 *How does the institution cope with the growing demand/scarcity of qualified senior faculty to teach new programs/modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.*

With the increase in educational institutes and exponential growth in technology, there is growing demand for qualified senior faculty to teach new programs introduced to incorporate emerging areas like IT.

Institute has a sufficient number of faculty and most of them are senior and have sufficient experience to impart recent technical education. Institute sponsors faculty to upgrade their qualification and also train them by permitting to attend FDP per semester. However, to cope with the educational challenges, the following measures are taken:

Institute organises expert lectures by inviting the senior and experienced experts from various organisations.

Details of Expert talks organised at the Institute are given in the Table 2.11 below:

Table 2.11: Details of Expert talks organised at the Institute

Year	No. of Expert Talks Organized
2016-17	27 + on going
2015-16	34
2014-15	28
2013-14	22

- In last four years, the institute has invited/ interacted with a number of visiting faculties in emerging fields.
- Institute has made possible NPTEL courses, FDP on emerging areas, Internet facility, library facility

2.4.3 Providing details on staff development programs during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

We encourage our teachers to attend an orientation program, FDP conducted by various institutes, seminars and workshops to enrol in online courses to enhance their quality.

- a) Details of nomination to development programs (Last 4 years) are given in Table 2.12 below.

Table 2.12: Details of faculty deputed for staff development programme

Academic Staff Development Programs	2012-13	2013-14	2014-15	2015-16	2016-17
Refresher courses (NPTEL Courses) other MOOCs.	-	--	1	11	ongoing
HRD Programs(National Symposium)	11	13	22	18	02
Orientation Programs	4	1	2	1	--
Staff training conducted by the university	32	10	32	32	02
Staff training conducted by other institutions	19	5	38	29	01
Summer/winter schools, Workshops, etc.	19	5	39	29	01

- b) Faculty Training programs organised by the institution to empower and enable the use of various tools and technology for improved teaching-learning (Last 4 years) is given in Table 2.13 below.

Table 2.13: Details Training programs organised by the institution

Category	Number of faculty members Nominated				
	2012-13	2013-14	2014-15	2015-16	2016-17
Training programs organised by the institute	4	8	15	10	2

c) **Percentage of faculty**

- Invited as resource persons in Workshops/Seminars/Conferences organised by external professional agencies.
- Participated in external Workshops / Seminars / Conferences.
- Recognised by national/international professional bodies presented papers in Workshops/Seminars/Conferences conducted or recognised by professional agencies

The details of Faculty participated in external Workshops/Seminars/Conferences is given in Table 2.14 below:

Table 2.14: Percentage of faculty Participated in external Workshops / Seminars / Conferences.

Year	Invited as Resource Person Workshop/Conference/Seminar				Participated in Workshop / Conference /Seminar				Presented paper in Workshop /Conference/ Seminar			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
%	--	2.73	2.53	2.66	39.74	57.53	59.49	70.00	20.51	42.46	40.50	22.00

2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialised programs industrial engagement etc.)

Institute has the provision of Higher Studies Policies and sustains policies for faculty publications and research grant. Institute provides study leave to pursue higher studies. Financial support with duty leave is provided to attend and participate in refresher/orientation program, National/International Conferences/Seminars/Workshops, etc. to upgrade their knowledge and skills regularly. Institute also deputies the teaching and nonteaching staff to pursue their higher education to develop themselves professionally. Institute helps in faculty and staff development activities

financially.

Institute organises FDP, STTP, seminars and workshops to keep the faculty updated with recent trends in their fields.

2.4.5 Give the number of faculty who received awards/recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty

Details of a number of faculty members who received awards/recognition at the state, national and international level for excellence in teaching during the last four years is given in Table 2.15 below.

Table 2.15: Details of faculty received awards/recognition

Name of the Faculty	Award / Recognition
Dr. Suresh K. Ukarande	Principal, KJSIEIT has been honored with "Best Engineering College Principal Award 2017" by ISTE Maharashtra and Goa Section in 14th ISTE Annual State Convention held at Bharti Vidyapeeth University COE, Pune
Mr. Vivek Mane	ISTE- G.S.F.C National Award for Best M.Tech. Thesis in Mechanical Engineering. First prize in 44th ISTE annual national convention for the thesis entitled "Fire Extinguishing Robot". 27th November 2014at Thiruvananthapuram, Kerala
Mr Harsh Bhor	Received 2nd rank at "ISTE Maharashtra Engineering Design Award" held at VIT, Vellore, Tamilnadu in 2016 for the project.
Mrs Vaishali Gaikwad	Awarded as "Best Promising Teacher for Student Engagements in Technical & Innovative Activities" by the professional body, The Institution of Engineering and Technology (IET) on 24 th Sept. 2016. Appreciation for working on Consultancy Project on "Real Time Location System" by DATA BYTE Mumbai.
Mrs Jyoti Wadmare	Appreciation for brand ambassador and as an SPOC for getting AA grade to the Institute by NPTEL
Dr Amol S. Deshpande	He has received first position at the University level in PhD Category (Engineering and Technology) for his research work entitled "Partial Discharge Analysis in High Voltage Insulation Systems", & he represented Mumbai University in Inter University State level Research Convention "AVISHKAR 2015" during 21-23 Jan, 2015 at Nagpur.
Mrs VrindaUllas Mrs Sejal Shah Mrs SarikaBhosale	Appreciation from Texas Instruments for mentoring projects in their India Innovation Challenge India Design contest 2015 by Texas Instruments.
Prof. Sarita Ambadekar	Received Appreciation for helping building future of India, under Deep-Blue projects season-II by Mastek Foundation in 2016.
Mrs. Vricha Chavan	Awarded Vidya Ratan by "The Economic for Health & Education Growth", New Delhi on the occasion of National Seminar on Health & Education Management on 17 th Nov 2012

For the Trust level annual awards, a properly constituted jury consisting of eminent personalities, select the awardees from among more than **1700 faculty members from**

36 institutions under Somaiya Trust. It is an honour which may be considered to be equal in stature to awards by external agencies. Our few faculty members who have received Somaiya Foundation day Trust level awards which are given in Table 2.16

Table 2.16: Jewels of Somaiya Trust

Name of the Faculty	Award / Recognition
Mrs Nilambari Joshi	She has been awarded as “Promising Teacher for 2015-16” by Somaiya Vidyavihar trust.
Mrs Kavita Bathe	She has been awarded as Chairman’s Award for Interdisciplinary Projects -08- 09-2015 by Somaiya Vidyavihar
Mr Vivek Mane	He has received award as a “Jewel of Somaiya” in 57 Annual Somaiya day 2015
Mrs Shyamal Virnodkar	She has been awarded for “Outstanding Performance in Teaching” for the Academic year 2013-14 on 09- 09-2014by Somaiya Vidyavihar trust.
Mrs Vaishali Wadhe	Recognition for outstanding performance for the academic year 2013-14 by Somaiya Trust Vidyavihar

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

The Institute practices an effective feedback system. Feedback is collected from various stakeholders in the form of suggestions from Governing Body, AC, IQAC, DAB, Alumni, etc. The institute also collects feedback from students for the teaching-learning process twice a semester. HODs of the corresponding department analyse the feedback, give a report to Dean Academics and Principal, and also discuss with the concerned Faculty for the improvement of individual teaching. The feedback is collected mid-semester, which ensures the improvement for the remaining term.

PTM is a proven method of collecting feedback from parents of students. The feedback is analysed by HODs. The feedback is forwarded to the principal, administration office and management. Various issues such as transportation, canteen food quality, campus environment, etc. have been improved based on the feedback obtained from the parents.

The Academic Committee collects reports from the Faculty regularly. Mid-semester reports consisting of the syllabus coverage, lecture conducted, etc. are collected and analysed by AC and reported to the HODs. HOD after discussing with individual faculty ensures the coverage of complete syllabus by making the provision of extra lectures.

2.5 Evaluation Process and Reforms

2.5.1. How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

Institute follows the policies of the UoM. The syllabus of all the programmes offered by the institute is available on the institute website. The institute In-charge of the examination cell follows the guidelines of Controller of Examination (CoE) of UoM which ensures the smooth facilitation of examination at the Institute. Academic calendar at the Institute level has the scope for internal assessment which is in line with the university calendar. Institute contributes to the university examination evaluation process as a CAP centre. Institute has been CAP centre for UG examinations.

Faculty:

A number of faculty members contribute to university examinations as chairperson of a particular course. Our faculty also contributes in the capacity of Chief conductor, CAP coordinator, Paper Setter, Internal/External Examiner, Junior/Senior Supervisor, Moderator, and Member of Flying Squad. Department level oral practical examination In-charge plans oral practical examination time table and ensures the proper allocation of examiners for respective course.

Academic audit is carried out by Academic Monitoring Committee at the beginning of the semester to monitor the preparation of the allotted course. The midterm academic course monitoring is also carried to check the progress. At the end of the semester, verification of course files of the faculty are done. Institute organises Faculty Development Programs and presentations on evaluation processes for continuous assessment. Staff meetings are conducted periodically to review the evaluation process. Institute notifies examination related information on the notice board as well as on college website and through emails. IQAC cell conducts awareness programs regarding course attainment, internal assessment and evaluation

Student:

During the orientation program held in the institute for the newly admitted students, the students are updated about the attendance requirements as well as the passing marks requirements and the grading systems for the internal assessments. The regulations are emphasised with a mention of the strict adherence to the norms provided by UoM.

Students are clearly made aware of the eligibility conditions required to appear in the University Examination of respective semester. Laboratory rubrics are displayed on the notice board and also uploaded on Google classroom. Institute also notifies the criteria for allocation of term work marks.

The respective subject faculty discusses the evaluation of questions and the marking scheme. Internal assessment of a student is conveyed to the parents and appropriate measures are taken to improve the results.

2.5.2 *What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?*

The university of Mumbai revised the syllabus from A.Y. 2012-13 with credit based grading system and the same is followed scrupulously. Institute evaluates Theory Assessment (20%) and Term work, Practical and Oral Examination. For internal evaluation, Institution conducts two unit tests per course per semester. Two unit test answer papers are shown to the students to address their grievance in the assessment if

any. The Theory Examinations (80%) are conducted and evaluation is done by the university through CAP and CAS. The soft theory papers of are assessed online and this is a totally transparent system.

Evaluation of laboratory sessions, project work and assignments is done rigorously according to predefined rubrics. IQAC has created a continuous assessment tool and the format of the same is communicated to the students so they are aware of the expectations.

Many faculty members use open book assignments and quizzes instead of traditional written assignments for formative assessment. Quizzes are usually uploaded on Google classrooms.

For the final year students, a Project is evaluated through seminar, presentations and demonstrations.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

University Evaluation:

- Institute organises University examination as per the schedule declared by the UoM. The institute In-charge of the examination cell follows the guidelines of CoE of UoM which ensures the smooth facilitation of examination at the Institute. The examination cell conducts faculty meetings to discuss all the examination related matters.
- Institute contributes to the university examination evaluation process as a CAP centre. Institute has been CAP centre for UG examinations.
- On screen assessment of answer sheets of final year and first-year exams are initiated by UoM from the academic year 2013-14 wherein the answer papers are scanned at the university and the assessment is done by approved teachers at identified remote centres of college. The allotment of papers is done randomly and identity of examinees is unknown. This is totally secure and transparent system.
- The result of theory examination is declared within 30 days.
- Adequate warning is given to students to ensure that no candidate uses unfair means or indulges in disorderly conduct at or in connection with examinations. Any unfair means is dealt with as per rules /regulations/ordinances of UoM.
- Students can apply for a photocopy of the answer sheet and revaluation of answer books of university end semester examination as per the procedures of the UoM.

Internal Evaluation:

- Each department has a Test co-coordinator for smooth conduction of the Internal Unit tests. The results of the evaluation are declared within eight days. The students peruse their answer books and discuss their queries with course teachers. The solutions of test papers are discussed in class for clearing doubts of students.
- Evaluation criteria as per the Institute policy is discussed during a meeting with the HODs and communicated to the faculty.
- Evaluation of laboratory sessions, project work and assignments is done rigorously according to predefined rubrics. IQAC has created a continuous assessment tool and the format of the same is communicated to the students so they are aware of the expectations.

- Mock orals are conducted during the practical sessions. Oral and practical marks are jointly evaluated by internal and external examiners.
- ICT based assignment, tests, MCQs, mock orals are the part of continuous assessment.

2.5.4 Provide details on the formative and summative assessment approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

The Institute focuses on achievement of mission of through mapping course and program objectives

Formative assessment approach

- The Institute conducts ICT based evaluation through assignment and quizzes for some courses using Google classrooms. This gives time for the student to think about the problem and at the same time, because of online format copying will be eliminated. The questions are usually conceptual and can be completed in a short time.
- Questions are asked during the lecture session to know the depth of understanding by the students. Discussions are initiated to help the students understand the topic in detail. Numerical problems are solved based on the topics covered in the classroom. Some faculty uses learning methodology like Think-Pair-Share (TPS), group assignments, seminars and project-based learning. This increases the involvement of students in the classroom. Some faculty members ask students to present a small talk on select topics to test their understanding or to promote self-learning.
- The Institute conducts project progress presentations which help us improve their presentation skills before the final exam.
- Institute arranges industrial visits for the students and they have to submit a report which is also evaluated to track their progress.
- The Institute promotes the students to participate in mini projects, paper presentation, workshop, seminar etc. at the state level and at national level technical events and conferences to create awareness and scientific temper. The Institute encourages the students to work on various industries need-based projects.
- Rubrics are designed for assignments and experiments and evaluation of laboratory giving weight to the behavioural aspects, independent learning, communication skills etc.
- We use module exit / course exit surveys and invite suggestions from students on the teaching methods through feedback. This helps faculty to adapt to their needs and improve their delivery.

Summative assessment approach

- Institution conducts two unit tests per course, per semester.
- For all the theory and practical courses other than the project work, the continuous internal assessment carrying 25/50 marks is subdivided into attendance, laboratory experiment/performance, assignments/tutorials, orals, seminars etc.

- Project work is also evaluated through presentations before internal and external experts.
- The University end semester examination carries 80 marks for theory and 25/50 marks for practical and oral examination.

2.5.5 The detail on the significant improvements made in ensuring rigour and transparency (break up of 25/50 mark is totally told to students & hence they themselves will understand the marks they deserve) in the internal assessment during the last four years and the weight assigned to the overall development of students. (weight for behavioural aspects, independent learning, and communication skills etc.)

The significant improvements made in ensuring rigour and transparency is given below:

- Institute focuses on timely evaluation to maintain transparency.
- Institute communicates progress report of their ward to the parents. It organises parents /guardians meet with the teacher (PTM) to have a communication twice a semester.
- Rubrics are designed with considering the behavioural aspects, independent learning, communication skills etc. for assignments and experiments. Evaluation of laboratory sessions, project work and assignments is done rigorously according to predefined rubrics. IQAC has created a continuous assessment tool to maintain transparency and the format of the same is communicated to the students so that they are aware of the expectations.

2.5.6 What is the graduate attributes specified by the Institute/affiliating university? How does the Institute ensure the attainment of these by the students?

Institute has well-defined mission, vision, program outcomes, Program Specific Outcomes and Program Educational Objectives in line with graduates attributes specified by the NBA.

Graduates attributes specified by the NBA:

Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to the solution of complex engineering problems.

Problem Analysis: Identify, formulate, research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

Life-long Learning: Recognise the need for and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.

Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team to manage projects and in multidisciplinary environments.

Attainment of Graduate Attributes

Each department has a well defined mission, vision, program outcomes, Program Specific Outcomes and Program Educational Objectives. Innovative teaching methods and student-centric teaching-learning approach are adopted to achieve graduate attributes.

Every faculty defines course objectives and course outcomes for the respective subject within the framework given by UoM. Course objectives and course outcomes are mapped with Program outcomes, Program outcomes are mapped with graduate attributes.

Institute has set up well-equipped laboratories aided with all modern software such as Matlab, Xilinx etc.

Institute has set up well-equipped language laboratory and Language Lab software has been installed. The activities carried out in language lab help the students to improve their verbal and non-verbal communication and develop soft skills in them. Institute encourages independent learning which includes a paper presentation by students, project, innovative mini project, publishing the articles in the newspaper and has proper weight to these heads.

The institute organises the technical festival, a cultural festival to effectively work as a team while strengthening individual interpersonal skills. Institute's E-cell contributes to demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team to manage projects and finance.

To achieve technical and managerial competencies institute encourages the student to participate in national and international events such as Robocon, Mood –Indigo, PATW, Google Summer Code etc.

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

For University examination, students can apply for photocopy of the answer sheet. Students may show the photocopy to concerned course teacher, discuss the grievances and seek advice. If she/he so requires, they may apply for reevaluation of answer books to the controller of examination as per the procedures of the University.

- Answer paper of internal tests are made available to students, their grievances related to internal assessment are resolved by the respective subject teacher.
- To monitor the student progress, Institute has the mentoring scheme in which one faculty is assigned as a proctor to the group of students who monitors the periodic progress of individual student and counselling is also done to improve overall performance.
- Continuous evaluation sheet method and rubrics are conveyed to the students.

2.6 Student performance and Learning Outcomes

2.6.1 Does the Institute have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Yes,

The Institute has clearly stated learning outcomes and finalised after considering remarks of all stakeholders. Every department has defined outcomes which have a one to one correspondence with the graduate attributes of NBA. Program educational objectives are also defined and mission statements which help in attaining those objectives are crafted. Program outcomes and Program Education Objectives are displayed in the laboratory, HOD Cabins, and printed in student laboratory journal, institute website etc. Parents and alumni are apprised of the same in parents meet, alumni meet etc. The leaflets of the department are given to visitors that also contain these learning outcomes. At the end of every semester, all the departments evaluate POs and COs by considering direct and indirect forms of assessment.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the student's Results /achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

The progress and performance of the students during four years of programme duration is assessed through the class test, internal assessment test, assignments, MCQs, oral, Presentations, project work, University result analysis, and continuous assessment of student laboratory work. Institute has attendance software, each faculty enters the attendance and monthly attendance list is displayed.

Weak students are identified, and they are counselled by HOD and proctor. Extra classes are conducted for weak students.

Test result and attendance of student are communicated to parents by letter, email and at the time of Parent Meeting. Assessment of teaching learning process is executed by program assessment committee. The results of final year are as shown in Table 2.17.

Table 2.17 Final Year Results

Year Programme	2015-16	2014-15	2013-14	2012-13
EXTC	96.09	91.37	98.56	89.61
COMP	100	98.51	94.12	94.81
IT	95.33	97.1	92.47	96.25
ETRX	86.15	82.19	83.33	79.74

Computer and Information Technology branches are in great demand and the cutoff marks for admission to these branches is higher. All over Maharashtra and India, the demand for Electronics Engineering is decreasing. As a result, the cutoff marks for these branches are low. However, as the table shows, the maximum transformation of students happen in this branch where the passing percentage which is low in the second year crosses 80-85% in final year which shows efforts taken by Institute to improve the performance of the student. Another aspect in observation is that though the students of Electronics branch are less inclined to theoretical studies, they excel in project work and a practical approach. Table 2.16 gives the details of Final year result analysis and Figure 2.2 shows pass percentage of four year result department wise.

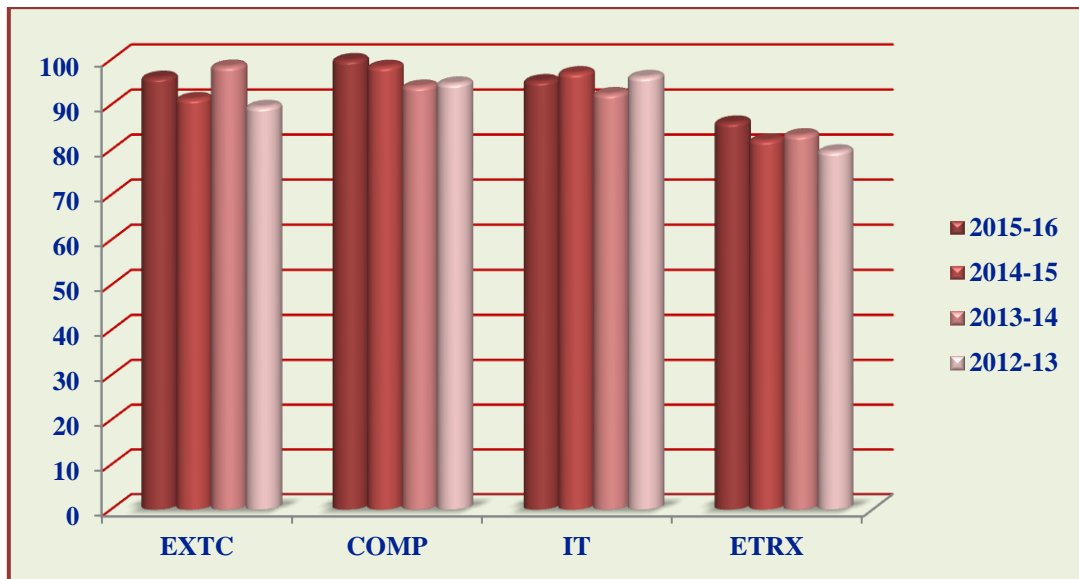


Figure 2.2 Pass percentage of four-years result department wise

2.6.3 How are the teaching, learning and assessment strategies of the institution? Structured to facilitate the achievement of the intended learning outcomes?

- The Institute intends to facilitate challenging teaching-learning environment to students. The teaching-learning process is planned as per the guideline of UoM.
- The Institute has IQAC cell and Academic Committee which helps to refine the quality of teaching learning process. Academic audit is done at the beginning and end of a semester. An external academic audit was done this semester and will be repeated every year henceforth.
- The course outcome for every course is defined and the consolidated program articulation matrix is prepared. The program outcomes which have a poor mapping are identified and steps are taken to improve them. The onus of this is on the DQC. The recommendations of DQC and other analysis are placed before the DAB and the strategy for improvement is discussed.
- The end semester results and the term test results are analysed. A strategy to improve the outcome is discussed in departmental and HOD meetings and the Departmental Advisory Board meetings.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

To enhance social and economic relevance following steps are taken:

- **Placement**
Training and Placement cell conducts various activities such as Training session, campus drives, job fair, aptitude tests, and mock interviews. The cell also conducts lectures on various fields to aware industry requirement to the students.

- **Entrepreneurship**

Institute has cells like E-cell, IIC, Student council they organise various awareness and skill development programs.

- **Higher studies and Research**

Institute provides facility and support for GATE/GRE examination preparation and arranges informative lectures on career guidance.

The students are motivated to participate and perform higher study education and in the field of research by providing facilities like R & D laboratory, library etc.

Other activities

The Institute has various bodies framed such as NSS, SDC, Cyber security Cell, etc which conduct various activities to inculcate social and economic values as well among students, along with academics.

2.6.5 How does the institution collect and analyse data on student performance And learning outcomes and use it for planning and overcoming barriers to learning?

The Institute analyses data on the academic performance of students based on student attendance, internal assessment (Test-I, Test-II), laboratory work assessment, seminar, project assessment, MCQs, assignment, external oral, term work assessment, university result analysis.

Barriers observed:

Poor communication skill, low confidence level, some students are slow learners, weak in mathematics.

To overcome barriers to learning outcomes following steps are taken

Soft skill courses are organised in the language lab, remedial classes/extra classes are conducted for slow learners, study material question bank is provided for all subjects. Counselling of student by proctor/faculty, proctors assigned to a group of students and expert/ guest lectures are organised, better library facilities made available. Institute monitors and collects data to achieve learning system quality from internal test, university examination and viva voce, curricular and extra-curricular activities

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

Institute use following means

- Internal Quality assessment Cell (IQAC) at institute level, Departmental Advisory board (DAB) and Program Monitoring Committee monitor teaching and learning process.
- Monthly report on syllabus completion, attendance monitoring, Departmental meetings and discussion on academic assessment and evaluation, Feedback analysis, Effective mentor system, Academic audit (internal/external) are major steps taken.
- To ensure attainment of learning outcomes, Institute always focuses on effective teaching and learning process.

- The attainment of CO, PO is monitored, if gaps are observed remedial steps are taken by the department.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If ‘yes’ provide details on the process and cite a few examples. Any other relevant information regarding Teaching-Learning and Evaluation which the Institute would like to include.

Yes, the student performance is evaluated by the institute and individual faculty.

Every faculty defines course objectives and course outcomes and designs lesson plan/lecture plan to achieve the outcome by adopting effective teaching methodology.

Students participate in tests, quizzes, mini projects, viva-voce, MCQ, laboratory work presentation, projects etc. All these academic activities help to assess the students. This process helps in achievement of learning outcome.

Infrastructure includes well-equipped classrooms designed for regular chalk and talk/multimedia teaching. Laboratories are equipped with latest equipment and library is stocked with the latest books, journals and access to e-learning/ digital resources.

This facilitated research as well as quality teaching learning process. The Institute also has a well-equipped and air-conditioned auditorium that has a seating capacity of 400. It is availed to conduct guest lectures, seminar/conference and symposiums as well as facilitates conduction of technical festivals (RENAISSANCE), annual cultural festival (SURGE).

A sports complex with outdoor table-tennis, tennis court, basketball court, turf football, skating, cycling and football ground, enables conduction of annual sports festival (SCORE) and other sporting events. There is an open gymnasium which aids in the development of physical fitness and is a stress buster after long hours in the classroom. The Infrastructural support is instrumental in fostering creativity, innovation and capabilities for a self-directed lifelong learning in students.

The policy of the Institution for creation and enhancement of infrastructure is as follows:

To meet the need of upgrading/ creating infrastructure that would support quality education and promote an ideal teaching-learning environment.

- Allocate maximum resources for infrastructure development.
- Optimum utilisation of resources to carry out curricular, co-curricular, extra-curricular and research activities.

The Estate Committee is constituted to discuss and take decisions regarding infrastructure development and renovation in the institute. The committee involves the head of the institute, two senior professors from the institute, members of the trust project office (chief engineer, civil engineer and architect) and a management representative. The committee meets as per need to review and place proposals regarding the infrastructure requirements.

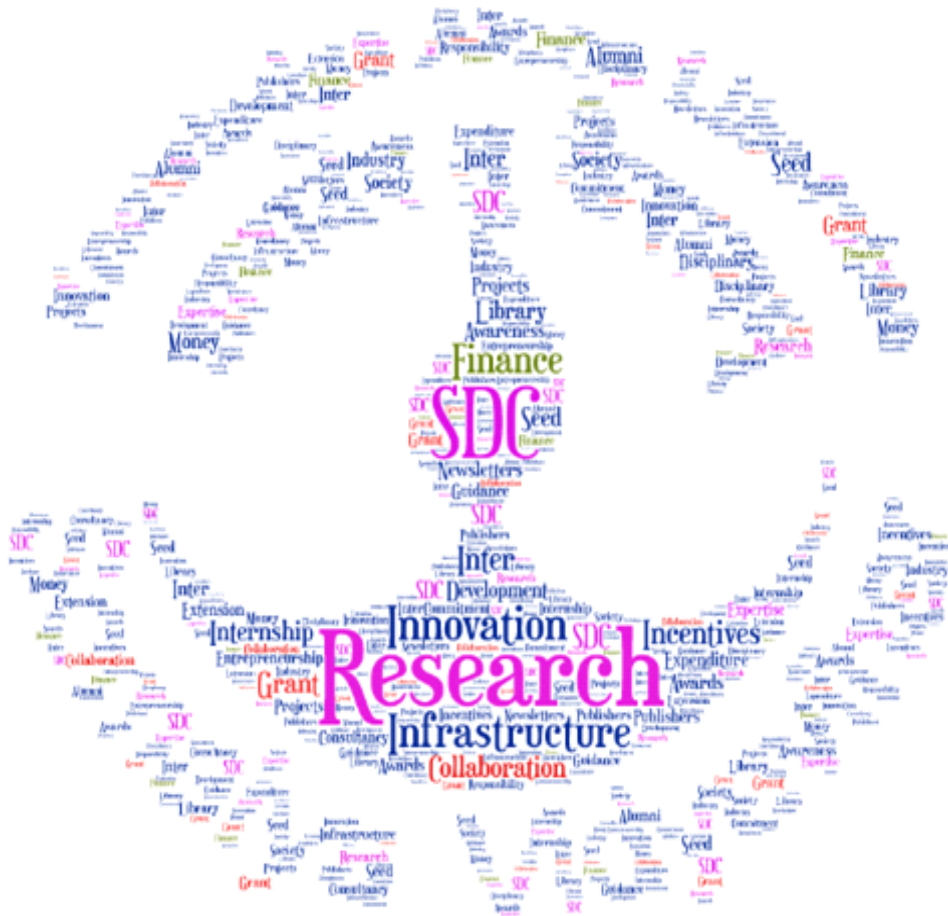


K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Criterion-III :

Research, Consultancy and Extension



CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

3.1.1 Does the institution have recognised research centre/s of the affiliating University or any other agency/organisation?

Currently we do not have recognized research centre of affiliating University or any other agency/organization. However, we are carrying out collaborative projects with K. J. Somaiya Institute of Applied Agricultural Research (KIAAR, Sameerwadi, Karnataka) and they have recognised our institute as a research centre.

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

Yes, the Institute has an internal Research and Development (R & D) Cell to promote Research related activities. Also, a Research Advisory Committee comprising of industry experts, eminent scientists, academicians and management representatives, has been formulated in the year 2016 based on the inputs from Governing Body. The composition is as shown in Table 3.1 and 3.2 for both committees as follows:

Internal R & D Cell:

Table 3.1 R & D Committee

Sr.No.	Name of the Faculty	Department
1	Dr Harsha Mishra (Dean)	Basic Science & Humanities
2	Dr Umesh Shinde (Co-ordinator)	Basic Science & Humanities
3	Prof. Shaheen Pathan (Member)	Basic Science & Humanities
4	Prof. Mrunali Desai (Member)	Computer Engineering
5	Prof. Nilambari Joshi (Member)	Computer Engineering
6	Prof. Mansing Rathod (Member)	Information Technology
7	Prof. Kiran Rathod (Member)	Electronics and Telecommunications
8	Prof. Prashant Upadhyay (Member)	Electronics and Telecommunications
9	Prof. Priya Hankare (Member)	Electronics and Telecommunications
10	Prof. Sejal Shah (Member)	Electronics Engineering
11	Mrs Chaitali Puroo (Member)	Basic Science & Humanities

Table 3.2 Research Advisory Committee

Sr. No.	Name of the Faculty	Industry/Department
1	Dr B. Sundara	Director, KIAAR, Sameerwadi.
2	Dr Uday Khedker	Professor, CSE IIT Bombay.
3	Dr Larry Walker	Professor, Cornell University.
4	Shri. Vishram Bapat	Director, Databyte services & Systems.
5	Shri.Pratik Gupta	Managing Director, E14 Technologies.
6	Dr.Sangeeta Shrivastava	GM corporate R & D at Godavari Biorefineries Ltd

Some suggestions of RAC given in the first meeting are listed below.

1. The onus of completing collaborative projects should be on the faculty.
2. Students should be involved in innovative projects having industrial value, addressing specific problems.
3. Projects should be evaluated periodically for the status.
4. Projects should be created in collaboration with industries and mentors from industry or research organisation or educational institutes like IITs, NITs should be identified to work with.
5. Dedicated laboratories should be created for research.

On the lines of the recommendations given by RAC members following strategies were devised:

- In order to gain guidance on writing research proposals, a talk by Dr Uday Khedker, Professor CSE department, IIT-Bombay, titled “Research Methodology” was arranged. Eminent speakers are often invited from reputed academic institutions and industries to share the knowledge and research experience.
- The interested faculty is entrusted with the responsibility of collaborative project work and the faculty involved in industry projects of value are given sabbatical leave and reduced load. Mentors from faculty are allotted to students for guidance while participating in competitions and engaging in collaborative project work. Students have participated and emerged victorious in many prestigious competitions.
- We have signed MOU with various industries for internships and projects. Many students are working on projects from industry.
- An extension building of 1700 sq.m is being built and more space will be allocated for research activities.

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?

- ✓ *autonomy to the principal investigator*
- ✓ *timely availability or release of resources*
- ✓ *adequate infrastructure and human resources*
- ✓ *time-off, reduced teaching load, special leave etc. to teachers*
- ✓ *support in terms of technology and information needs*

- ✓ *facilitate timely auditing and submission of utilisation certificate to the funding authorities*
- ✓ *any other*

The institute has taken the following measures to facilitate smooth progress and implementation of research schemes and projects:

Financial Aid:

Institute funds seed money to short-term and long-term teacher-led projects. Institute also provides financial support of Rs. 8000/- per year per faculty which is increased to Rs.15,000/- from the year 2017-18 and budgeted Rs. 2, 20,000 for each department, for participating in National and International seminars, symposia, workshops, conferences, training programs. Travelling expenses in case of field studies and paper presentations are supported by the Institute. Institute bears the membership fees of various professional bodies. Travelling expense and registration fee is sanctioned for students taking part in prestigious competitions.

Infrastructure Facilities:

Faculty members have free access to laboratories and its equipment to carry out research work. Institute procures different hardware equipment, software, and books as demanded. Students and faculty members are provided with 56 Mbps uninterrupted internet access. Wi-Fi is also available on the campus. The Institute has the requisite equipment and software to carry out work in different domains like IoT, Robotics, Cybersecurity, Cloud Computing, etc.

Human resource support:

The institute encourages teaching and non-teaching staff to work actively in research and consulting projects to hone their skills.

Knowledge-based facilities:

Excellent library resources are available and online access to e-journals and digital libraries is provided to teachers and students. Besides the central library, faculty members have free access to the library facilities of all institutes under the umbrella of Somaiya Vidyavihar Trust and IIT-Bombay library. Timely updates on the recent additions to the vast collection of online journals and e-resources are conveyed to the students and faculty members. Domain experts from reputed foreign / Indian institutes and industries are invited to share their knowledge to inculcate research attitude among faculty members and students. Regular communication regarding different research grant schemes by funding agencies is done to motivate faculty members and students to apply for a grant. Different Workshops promoting research are conducted for faculty and students.

Incentives and Other facilities

- Institute supports teachers who undertake funded projects by giving less academic duties and are also relieved from other administrative responsibilities. They may also be provided sabbatical leave to work on different research and consultancy project work.

- All facilities as per the higher education policy of the SVV are given to faculty members pursuing higher studies.
- Dean (R & D) coordinates with the faculty of each department to promote
- research, consultancy and training in their respective departments. Dean (R & D) carries out the audit of consultancy works undertaken by various departments through R & D meetings.
- Regular audit of the completed/fulfilled research work is conducted to ensure smooth completion of projects.
- Autonomy is granted to the principal investigator to choose a research topic, ideas, funding agency, project staff and procurement of equipment and software.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

The term “*scientific temper*” first coined by Prime Minister Pt. Jawaharlal Nehru is a way of life and when referring to a person- *implies a person who is able to think independently, understands and practices the scientific method in his/her daily lives, analyses statements without taking them at their face value and avoids simplistic reasoning.*

KJSIEIT takes the following steps to inculcate this temperament:

- In order to enhance and channelize the research activities, Institute has formed Research and Development committee and Research advisory committee.
- Celebrating important days like National Science Day, Engineer’s Day on a large scale by conducting various competitions and distribution of prizes and appreciation letters.
- Conducting Technical Festival, Robo-Festival, Summer Internship Programmes.
- Conducting expert lectures on research-oriented topics by experts from the field of Science and Technology.
- Arranging project competitions for the B.E. students, educational tours, industrial visits, field trips to inculcate a sense of scientific temper and research culture.
- Assigning group projects on topics of emerging areas and industry relevant themes to the students to infuse critical thinking and scientific temper. Institute has a very active Software Development Cell (SDC) and other special interest groups, which undertake consultancy projects for industry and other academic institutes and also encourage students to work on them.
- Promoting the students to participate and organise different events like a technical festival and to present research papers in important events like Indian Science Congress and other conferences.
- Conveying subject related recent developments by going beyond the syllabus during the lectures and practical.
- Motivating and facilitating students to file Patents and Copyrights. Financial support for the same is provided by the of the Institute through “IPR Cell”.

- Providing free access to Institutional facilities to carry out research work
- Funding seed money to student projects.
- Highlighting the research activities of the students in institutional newsletters and website.
- Organising entrepreneurship events like *Maker Mela* at Trust level, to encourage students to come up with innovative saleable projects.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.

Faculty members of the institute are actively involved in multidisciplinary projects. Some of the faculty members are involved in the research projects in collaboration with KIAAR, K. J. Somaiya Hospital, and GBL etc. Table 3.3, Table 3.4, Table 3.5 & Table 3.6 below provide the data of the faculty guiding PhD and ME projects, faculty engaged in individual/collaborative research activities and also to faculty involved in individual research:

Table 3.3 Faculty members of Institute guiding PG students/ research scholar

Name of faculty Guiding Research	No. of PG students/research Scholars	Name of department
Prof. Suresh Ukarande	13	BS&H
Prof. Milind Nemade	6	ETRX
Prof. Jayashree Khanapuri	2	EXTC
Prof. Sunita Patil	4 (ME students)	COMP
Prof. Uday Rote	2 (ME students)	IT

Table 3.4 Department wise involvement of faculty in research projects

Department	No. of Faculty Involved	Funding agency (eg. AICTE/UoM/Industry)
Electronics and Telecommunication Engineering	10	UoM
Computer Engineering	06	Industry /UoM
Information Technology	01	Industry
Electronics Engineering	08	UoM / Industry
Basic Sciences & Humanities	07	UoM

Table 3.5 Faculty members involved in individual research

Department	Name of faculty	Research Area
BS&H	Dr Suresh Ukarande	Water Source Engineering
EXTC	Dr Jayashree Khanapuri	Image processing
EXTC	Prof. Namrata Ansari	Broad band micro strip antenna
EXTC	Prof. Kiran Rathod	Microstrip Antenna(Textile Antenna)
COMP	Prof. Shyamal Virnodkar	Image Processing
COMP	Prof. Kavita Bathe	Data Mining
COMP	Prof. Nilambari Joshi	Cloud computing
COMP	Prof. Sarita Ambadekar	Image Processing
COMP	Prof. Mrunali Desai	System Security
IT	Prof. Vaishali Gaikwad	Networking Security
IT	Prof. Uday Rote	Wireless sensor network
IT	Prof. Mansingh Rathod	Image Processing
ETRX	Dr Milind Nemade	Speech Processing
ETRX	Prof. Vrinda Ullas	Embedded systems
ETRX	Prof.Vricha Chavan	Image Processing
ETRX	Prof. Vidya Sagvekar	VLSI Technology
ETRX	Prof. Mandar Bivalkar	Signal Processing
ETRX	Prof. Sandhya Kadam	Image Processing
BS&H	Dr Harsha Mishra	Natural products, chemical and water analysis
BS&H	Dr Vaishali Ghadyalji	English literature
BS&H	Dr K. K. Sinha	Differential equations and Fourier
BS&H	Dr Umesh Shinde	Spintronics, Nanomaterials
BS&H	Prof. Shahin Pathan	Water technology, Nanomaterials
BS&H	Dr. Vrushali Deole	English Literature
BS&H	Prof. Pashmi Kumavat	Mathematical transform and analysis

Table 3.6 Faculty members involved in collaborative research

Title of Project and Scope of project	Name of agency	Project Leader	Year in which started	Duration
Mobile App for Farmers	Godavari Biofertilizers Ltd. Sameerwadi	Prof. Shyamal Virnodkar, Prof. Kavita Bathe, Prof. Mrunali Desai Mr. Santosh Jadhav	2016-17	In Process
Voice Controlled wheelchair using Android Mobile	Grant from Mumbai University received	Prof. Sheetal Jagtap	2016	In Process
Pedobarography: Low-cost foot pressure measurement	In Collaboration with K. J. Somaiya Physiotherapy Hospital	Prof. Vrinda Ullas	2016	In process
GIS-based Farming System	Godavari Biofertilizers Ltd. Sameerwadi	Prof. Shyamal Virnodkar, Prof. Kavita Bathe, Prof. Mrunali Desai Prof. Vricha Chavan	2015	3 years
Private Cloud setup for academic institute	IIT Bombay (mentoring)	Prof. Nilambari Joshi, Prof. Prashant Sawant	2015	2 years
Growth Room Monitoring & Control of Tissue Culture Lab	KIAAR	Prof. Sarika Bhosale	2015	2 years
KIAAR Information System	KIAAR	Prof. Shyamal Virnodkar Prof. Kavita Bathe	2015	6 months
Soil Fertilisers Calculator	KIAAR	Prof. Kavita Bathe Prof. Shyamal Virnodkar	2015	6 months
Notification to Farmer	KIAAR	Prof. Shyamal Virnodkar Prof. Kavita Bathe	2015	6 months
Sugarcane Cultivation Expert System (Static Module)	KIAAR	Prof. Kavita Bathe	2015	6 months
Study of Geographical Information System	KIAAR	Prof. Shyamal Virnodkar	2015	6 months
Study Projects for SCADA	GBL Ltd.	Prof. Prashant Upadhyay	2015	6 months
Automated Drip Irrigation System	KIAAR	Prof. Prashant Upadhyay	2015	6 months
Media Preparation Room's Autoclave Controller for Tissue Culture Lab	KIAAR	Prof. Sarika Bhosale	2015	6 months
Street Light Control for GBL	Godavari Biorefineries Ltd.	Prof. Sarika Bhosale	2015	6 months
Three phase motor On-Off Control for water lifting using mobile	Godavari Biorefineries Ltd.	Prof. Sarika Bhosale	2015	6 months
Real-time Location System for small fishing boats	Data Byte	Prof. Vaishali Gaikwad, Prof. Kiran Rathod	2014	2 years
pH Measurement	KIAAR	Prof. Kavita Bathe	2016	2 months

First Module of Agriculture Support System- Measurement of Temperature, Humidity and Spoil Moisture	KIAAR	Prof. Kavita Bathe	2016	6 months
Hybrid Growth Room Monitoring & Control for Tissue Culture Lab – Version 2	KIAAR	Prof. Sarika Bhosale	2016	6 months
Fertiliser Recommendation – Version 2	KIAAR	Prof.Kavita Bathe Prof.Shyamal Virnodkar	2016	6 months

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organised by the institution with a focus on capacity building in terms of research and imbining research culture among the staff and students.

The institute conducts various faculty and student development programmes to inculcate research culture in the institute. Technical development programmes for non-teaching staff are also conducted to enhance their knowledge and technical skills. The details of the workshops/seminars/training programmes/sensitization programmes for staff and students are as shown in Table no. 3.7 & Table no. 3.8.

Table 3.7 Workshops/ training programmes/ sensitization programmes conducted /organized by the Institute for staff and students (in A.Y. 2013-14, 2014-15, 2015-16, 2016-17)

Total No. of STTPs	One month certification program	Total No. of two /three days workshops	Total No. of one-day workshops	Total No. of Seminars	Total No. of Guest lectures
11	1	22	31	27	95

Table 3.8 Competitions organised by the Institute

Year	Name of Event	Name of faculty concerned	Department/Group of students/Name of project
2016-17	Present Around The World (PATW) International Competition	Prof. Vaishali Mohite	KJSIEIT-IET 2K17
2016-17	Oscillations	Prof. Vrinda Ullas, Prof. Medha Asurlekar	KJSIEIT-IETE Oscillation 2K16
2016-17	IET-Nurturing Intelligence for Curious Engineers NICE-2K16 Regional Level Competition Organised	Prof. Seema Yadav	KJSIEIT-IET
2015-16	Oscillations	Prof. Vrinda Ullas, Prof. Medha Asurlekar	KJSIEIT-IETE Oscillation 2K16

2015-16	KJSIEIT-INTECH-2016 Project Competition (Organized)	Prof. Kavita Bathe, Prof. Mrunali Desai, Prof. Pradnya Kamble, Prof. Rashmi Adatkar, Prof. Sheetal Jagtap, Prof. Vidya Sagvekar	Institute level
2015-16	IET-Nurturing Intelligence for Curious Engineers NICE-2K15 Regional & State Level Competition	Dr Sunita Patil	KJSIEIT-IET
2014-15	Poster Presentation Competition-2015	Prof. Rashmi Adatkar	EXTC Department Level competition
2014-15	Mini Project Competition	Prof. Kavita Bathe	Computer Department Level competition
2014-15	Poster presentation for B.E .projects	Prof. Nilambari Joshi	Computer Department students
2014-15	IET-Nurturing Intelligence for Curious Engineers NICE-2K14, Regional & State Level Competition Organised by KJSIEIT-IET	Dr Sunita Patil	KJSIEIT-IET
2014-15	Oscillations	Prof. Medha Asurlekar Prof. Namrata Gharat	KJSIEIT-IETE Oscillation 2K15.

3.1.7 Provide details of prioritised research areas and the expertise available with the institution.

As stated in its mission to develop as a premier technical institution of teaching, learning, research and innovation at par with leading international institutions of repute, the institute has identified the following major areas of research as shown in Table 3.9.

Table 3.9 Prioritised research areas and the respective faculty expertise

Name of staff	Qualification	Designation	Research Area
Dr Suresh Ukarande	PhD(Civil)	Principal	Water Source Engineering
Dr Milind Nemade	PhD(EXTC)	Professor	Speech Processing
Dr Jayashri Khanapuri	PhD(EXTC)	Professor	Image processing
Dr Sunita Patil	PhD(Computer)	Professor	Data Mining
Dr.Harsha Mishra	PhD(Chemistry)	Assistant Professor	Natural Products, chemical and water analysis
Prof. Uday Rote	M.E.(Computer)	Assistant Professor	Wireless Sensor Network
Dr Vaishali K. Ghadyalji	PhD(English)	Assistant professor	Tragic Drama
Dr. Umesh Shinde	PhD(Physics)	Assistant Professor	Spintronics, Nanomaterials
Dr K. K. Sinha	PhD (Mathematics)	Assistant Professor	Differential equations and Fourier
Prof. Shyamal Virnodkar	M.E.(Computer)	Assistant Professor	Image Processing

Prof. Kavita Bathe	M.E.(Computer)	Assistant Professor	Data Mining
Prof. Vrinda Ulhas	M.E. (ETRX)	Assistant Professor	Embedded Systems
Prof. Vricha Chavan	M.E. (ETRX)	Assistant Professor	Image Processing
Prof. Vidya Sagvekar	M.E. (ETRX)	Assistant Professor	VLSI Technology
Prof. Shahin Pathan	M.Sc (Chemistry)	Assistant Professor	Water treatment and analysis, Nanomaterials
Prof. Vrushali .Deole	Ph.D.(English)	Assistant Professor	Indian Mythology & Gender Studies
Prof. Nilambari Joshi	M.Tech. (Computer)	Assistant Professor	Cloud Computing
Prof. Sandhya Kadam	M.E. (Electronics)	Assistant Professor	Image Processing
Prof. Sarita Ambadekar	M.E. (Computer)	Assistant Professor	Image Processing
Prof. Mandar Bivalkar	M.Tech. (Electronics)	Assistant Professor	Signal Processing
Prof. Kiran Rathod	M.E.(Digital Electronics)	Assistant Professor	Broadband Textile Antenna

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

The institute is taking continuous efforts to attract the outstanding professionals in industry and academia to interact with the faculty members and students.

All departments invite experts for guest lectures or as chief guests for different activities conducted. These frequent interactions keep us updated about the trends in the industry and the opportunities. The following Table 3.10 shows the list of eminent people who visited the college campus and interacted with faculty members and students in the last three years.

Table 3.10 Number of eminent personalities visited campus for different events

Year	STTPs/ Internships/ Workshops/ FDPs	Chief Guest for different events	Expert Talks	Judges for Competitions/ NICE/Auditors
2017	03	3	5	24
2016	10	5	18	13
2015	19	5	19	4

3.1.9 What percentage of the faculty has utilised Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

The institute provides sabbatical leave to its faculty members who are involved in research projects. Our institute has granted 6-month sabbatical leave for Software Development Cell members to increase their professional competence. The details are as shown in Table 3.11 below

Table 3.11 List of Faculty/Staff members who have been granted Sabbatical Leave

Sr . No.	Name of Faculty	Period
1	Prof. Shyamal Virnodkar	1/7/2016 to 31/12/2016
2	Prof. Mrunali Desai	1/7/2016 to 31/12/2016
3	Prof. Kavita Bathe	1/7/2016 to 31/12/2016
4	Mr. Santosh Jadhav (Technical Assistant)	1/7/2016 to 31/12/2016

The staff availing the sabbatical leave considerably improved upon the quality of research which is resulted in following:

The team is able to bring in funds worth Rs.46,40,000/-

Many students are involved in the projects undertaken by them and this has resulted in improvement of placement profile of the students.

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

It is highly important to know current trends and activities undertaken by other researchers in different areas. The institute strongly believes that there is a need to create awareness about the latest development in science and technology among the students, faculty members and society. Following are the initiatives were taken up by the Institute in creating awareness / advocating / transfer of activities of the Institute to students and community:

- A newsletter published every semester by each department highlights the various departmental activities which also includes research updates.
- Institute website has a separate web page dedicated to R & D. This web page contains all the updated information about ongoing research activities.
- Important information regarding awards received, research funding agencies, paper conferences and publications, faculty achievements, etc. are conveyed to all by the Principal through emails and notice board displays.
- Outstanding and innovative projects of the students are demonstrated to students and also to parents during parent-teacher meetings to motivate students to take up such initiatives.
- Display of outstanding projects from SDC, e-Yantra, Robocon is done during Somaiya Trust Annual Day.
- Research Innovation Incubation Development Laboratory (RiiDL) of Somaiya Trust helps in translating the efforts of students and faculty into saleable products.
- **Maker Mela** organised by RiiDL showcases products by students of our Institute. Demo of such products is given to student group to motivate them. Faculty and students are educated on Intellectual Property Rights, current trends etc. through expert talks.

3.2. Resource Mobilisation for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilisation.

Keeping in mind the rising needs for research, the institute budget allotment for R & D has also increased proportionately. In 2014-15 total budget of 3,00,000 (0.25 %) was allocated for R & D, similarly for 2015-16, and 2016-17 was Rs 6,00,000/- (0.43%) and Rs. 10,00,000/- (0.62%) respectively. Following Table 3.12 shows the details of expenditure for R & D:

Table 3.12 Details of the Expenditure for R & D

Sr. No.	Particulars	2014-15 Actual Expenditure (Lakhs.)	2015-16 Actual Expenditure (Lakhs.)	2016-17 Actual Expenditure (Lakhs.)
1	Library Expenses	14.6	8.51	5.83
2	R & D Expenses for STTP's/Conferences/Memberships	1.41	5.37	2.5
3	Travelling conveyance	-----	0.43	0.09
4	Robocon expenses	2.02	3.04	1.79

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Yes, there is the provision of seed money to faculty and students for research. Institute has a scheme for providing funding for research activity by its faculty members and students. The proposals and the estimate of expenditure for research projects are sent for approval to the R & D cell. Based on its recommendation, some percentage of the total expenditure is disbursed in instalments. The details are as shown in Table 3.13 below.

Table 3.13 Details of seed money

Title of Project	Sponsoring agency	Project Leader	Year in which started	Duration in months	Seed Money (In Rs)
Control of Tissue Culture Lab	KIAAR and KJSIEIT	Prof. Sarika Bhosale	2015	12	9416/-
Agricultural Exper System	KIAAR and KJSIEIT	Prof. Kavita Bathe	2015	12	15,000/-
Agricultural Soil Moisture Analysis	KJSIEIT	Dr Sunita Patil	2014	12	12,000/-
Real-time Location System for small fishing Boats	Data byte systems and services and KJSIEIT	Prof. Kiran R. Rathod Prof. Prashant Upadhyay Prof. Vaishali Gaikwad	2014	14	27,130/-

3.2.3 What are the financial provisions made available to support student research projects by students?

The institute encourages research in each department through seed money for short-term and long-term teacher-led student projects and provides sponsorship for competitions like Robocon, Avishkar etc. Different lab instruments and software are purchased by our institute which is required for student’s projects. The laboratories are equipped with requisite facilities and systems for the students to take up their project work in the college itself. Following Table 3.14 & 3.15 shows the data of the activities for which institute has given sponsorship and Lab cost involved.

Table 3.14 Sponsorship for Reputed competitions and student’s projects

Sr. No.	Competition	Year	Sponsored amount (Rs.)
1	Robocon	2013-17	6,85,046/-
2	ARM Cortex 3D Printer	2016-17	32,500/-
3	New technology based agriculture projects	2015-16	15,290/-

Table 3.15 Laboratory cost details

Department	Total Investment in Laboratories(Rs.)
EXTC	2,03,33,697 /-
COMP	52,65,393/-
IT	62,14,828/-
ETRX	1,22,31,413/-
BSH	44,17,120/-

The institute has sponsored few Project Competition like KJSIEIT-INTECH 2016, KJSIEIT-INTECH 2017, Oscillations, Robocon etc. The institute has sponsored travel allowance for some student project competitions, conferences, etc

Table 3.16 Sponsorship for travelling allowance for Project Competitions

Competition Name	Year	Sponsoring Agency	Sponsored amount (Rs)
Robocon National 2017	2016-17	KJSIEIT	10,576/-
ARM ACCS Design Challenge	2016-17	KJSIEIT	9,200/-
ACM-ICPC 2016 ACM-Intercollegiate Programming Contest	2015-16	KJSIEIT	7,872/-
Robocon National 2016	2015-16	KJSIEIT	13,500/-

3.2.4 How does the various departments/units/staff of the institute interact in undertaking interdisciplinary research? Cite examples of successful endeavours and challenges faced in organising interdisciplinary research.

Dean R & D and HODs co-ordinate for interdepartmental projects. Departments collaborate for participating in competitions if required. The Robocon team is a prominent example of the same. Also, a team for Texas India innovation contest was comprising of students from electronics and IT departments. Interdisciplinary projects undertaken by the faculty are mentioned in the Table no.3.17 as given below.

Table 3.17 Inter-disciplinary research projects

Name of Project	Departments Involved	Project Application	Status
Private cloud for K . J Somaiya Institute of Engineering & IT, Sion, Mumbai	Information Technology and Computer Engineering	Institute software/lab. Will Deploy on cloud	Ongoing
Control of Tissue Culture Lab	Electronics and Computer Engineering	Useful for conservation of energy	Completed in 2015
*Reassessing major factors detrimental to mangroves population at different locations of Mumbai & Thane district coastal areas.	Basic Science & Humanities and Electronics Engineering	Water pollution	Sent to MOEF but was not accepted at final stage
Real-time Location System for small Fishing Boats	EXTC and IT	Useful for mariners	Completed in 2017

*The project proposal mentioned was not accepted after reaching the final stage.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

Departments have their own labs, however, occasionally, specialised equipment is shared. Staff or students requiring facilities of another department are allocated the same after routing an application through HOD and Lab in-charge. The lab timetables are available online for checking the availability. Lab facilities are also available to students irrespective of departments to which they belong after college

hours, weekends and holidays. Information is maintained for utilisation of equipment. Specialised equipment is shared between different departments if required, and record of such sharing is maintained.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If ‘yes’ give details.

Yes, the faculty members have developed applications and sensor based products

for KIAAR /GBL. The equipment is financed by these beneficiaries. For example, The DBSS provided a high-end antenna costing approximately Rs. 10,00,000/- .This antenna used in Real-time Location System for small fishing Boats. The robotic centre team has received approximately Rs. 6,85,046/- from Somaiya Trust for the development of robots to be presented in the competition which is further used for different applications in last 3 years.

Following Table 3.18 shows is the list of different facilities created from industry and UoM grants.

Table 3.18 List of equipment received from Industry

Agency/ Industry	Particulars of Facility	Amount in worth (Rs.)	Year	Facilities created
Mr.Prashant Nair (Alumni)	High-end Server configuration desktop PC	80,000/-	2015	Private cloud setup (ongoing)
IET	3 IOT Kits	3,00,000/-	2015	IOT lab set-up(proposed)
ARM UK through ARM University Program	100 Keil Professional Software licenses	2,30,000/- each	2014	Used to set up Embedded systems lab.
Freescale Semiconductors through ARM University Program	FRDM platform kit	15,880 (1588x10)	2014	
Eduvance Cypress Semiconductors	PSoC 4 PIONEER Kit with cables	9,122/- (2280.50 x 4)	2014	
	PSoC 5LP Development Kit with CD and cables	43,594/- (21,797.19 x2)	2014	
DBSS	Microstrip Antenna	10,00,000/-	2014	Used for project
UoM	CVD Furnace	31,972/-	2013	Used for various projects and laboratories

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organisations. Provide details of ongoing and completed projects and grants received during the last four years.

Institute has encouraged faculty to start faculty chapters of reputed organisations such as IEEE, CSI, IETE, IET, IEI, ISTE etc. Some of these organisations such as IET and IEI provide grants to deserving projects. Membership fees for IET for faculty members are sponsored by the Institute. MOUs with various industries are signed to get their guidance and support for developing research facilities. Institute encourages faculty to apply for research grants provided by UoM, DST, MOEF, UGC etc. Projects in collaboration with industries, UoM and the grant received are as listed in Table 3.19, 3.20, 3.21 , 3.22 and figure 3.1 below:

Table 3.19 list of completed projects that received grant from industry and Institute

Year	Title of Project	Sponsoring agency	Saving / Amount received	Total Grant Received in Rs
Minor Projects				
2016-2017	Wireless Health Monitoring System using personal area network	UoM	25,000	4,06,000
	Tree Climbing coconut plucker	UoM	35,000	
	Processing of infrared Thermal Images for early breast cancer disease detection using colour image analysis	UoM	30,000	
	Developing a computer based information system to improve the diagnosis of blood	UoM	20,000	
	Design and development of Rectangular slot and angular ring slot wearable broad band circularly polarized textile antenna for medical application	UoM	25,000	
	A Computer Vision based Automatic Gate Control for Vehicle recognition	UoM	31,000	
	Development of FPGA based controller area network sniffer for prosthetic limbs	UoM	25,000	
	Antinutritive features of little known legume Dolichos biflorous (kulthi) from drought prone areas of Maharashtra	UoM	30,000	
	Inclusion of Queer Gender in Indian Mainstream and Bridging Gap between Myth and Reality	UoM	20,000	
	Design and fabrication of walking assistance device for paralyzed patient	UoM	30,000	
	A Study of library branding through implementation of value added services for enhancing library usage	UoM	25,000	
	Voice Controlled Wheelchair using Android Mobile	UoM	35,000	
	IoT based Maximum Solar Power Point Tracking System For Greenhouse Application	UoM	25,000	
	Enrich Security in MANET by avoiding Wormhole Attack	UoM	25,000	
Water Quality Monitoring System using Wireless Sensor Network and Data Mining	UoM	25,000		
2015-2016	To study the effect of a site doping on properties of Nanostructured Multiferroic Perovskite Manganite	UoM	48,000	1,93,000
	Synthesis of Functionalized carbon from groundnut shell for removal of heavy metals from water	UoM	25,000	
	A study of the implication of Ethnicity in the work of Rohinton Mistry and Bapsy Sidhwa	UoM	30,000	
	Brain tumor detection using artificial neural network	UoM	40,000	
	HPS and ultrasonic transceiver enabled device with heart rate monitor for sailor in marine environment	UoM	50,000	

2014-2015	Performance measures, analysis and comparison of system level simulation based LTE and WiMAX 4G cellular technologies for Telecommunication systems.	UoM	25,000	2,15,000
	Effective Path Planning for Multi Robot System using Hovering Eye	UoM	40,000	
	OmnivisionQuadcopter	UoM	40,000	
	Text to Speech Conversion	UoM	40,000	
	Analysis Design of Energy Efficient Routing algorithm for Wireless Sensor Networks	UoM	45,000	
	Treatment of Hospital wastewater with groundnut shell powdered activated carbon	UoM	25,000	
2013-2014	Physico Chemical characteristics of Hospital wastewater	UoM	35,000	1,25,000
	Fast detection of circumscribed mass in mammograms employing radial basis function neural networks)	UoM	40,000	
	Design of microstrip array antenna for bandwidth enhancement	UoM	25,000	
	Fabric defect detection by using image analysis	UoM	25,000	
2012-2013	Synthesis & Characterization of Nano Ferrites	UoM	25,000/-	2,32,000
	Critical Approaches to Gender related Queer Themes in Greek and Indian Mythology	UoM	10,000	
	Synthesis & Structural Studies of NanoStructure Magneto resistive oxides	UoM	25,000	
	Green Synthesis and Characterization of carbon nano materials from biomass	UoM	25,000	
	Gui Based Quantitative Performance Comparison Of Single Channel Speech Enhancement Techniques For Personal Communication	UoM	18,500	
	Touch screen based medical vending machine for society welfare	UoM	23,500	
	Removal of impulse noise from monochrome and color images using different filtering techniques	UoM	20,000	

Sponsored by Industry

2014-2015	Wireless Battery Monitoring System for Electric Vehicles	Texas Instruments	250 USD (granted) 33 USD (utilized)	15,145
	Home Automation using low power wrist watch	Texas Instruments	200 USD	
2015-2016	Mobile App for Farmers	GBL	Sanctioned (Rs. 46,00,000/- 10,00000/- received)	10,40,000 received
	Admission Process Management	GVAIET	40,000	

Sponsored By Institute				
2016-2017	ARM Cortex 3D Printer	KJSIEIT	32,500	1,06,046
	Real time Location System for small fishing Boats	KJSIEIT	27,130	
2015-2016	KIAAR Autoclave Automation	KJSIEIT	10,000	2,80,000
	KIAAR Information System	KJSIEIT	15,000	
2014-2015	Agricultural Soil Moisture Analysis	KJSIEIT	12,000	
	Control tissue culture lab	KJSIEIT	9,416	
	Faculty Feedback Application	KJSIEIT	30,000 (Savings of Institute)	
	Admission Process Management	KJSIEIT	1,50,000 (Savings of Institute)	
	Attendance Monitoring System	KJSIEIT	1,00,000 (Savings of Institute)	

Table 3.20 List of completed Projects that received grant from UoM

Faculty Name	Title/Topic	Sanctioned research grant (Rs)	Total Sanctioned research grant in Rs.
2015-2016			
Dr.Umesh Shinde	To study the effect of a site doping on properties of Nanostructured Multiferroic Perovskite Manganite	48,000	1,93,000
Prof. Shahin Pathan	Synthesis of Functionalized carbon from groundnut shell for removal of heavy metals from water 2015-16	25,000	1,45,000
Prof. Vaishali Ghadyalji	A study of the implication of Ethnicity in the work of Rohinton Mistry and Bapsy Sidhwa 2015-16	30,000	
Prof.Harshwardhan Ahire	Brain tumour detection using artificial neural network	40,000	
Prof. Milind Nemade	HPS and ultrasonic transceiver enabled device with heart rate monitor for sailor in marine environment	50,000	
2014-2015			
Prof. Tillotama Dhake	Performance measures, analysis and comparison of system level simulation based LTE and WiMAX 4G cellular technologies for Telecommunication systems.	25,000	2,15,000
Prof. Sandip Mishra	Effective Path Planning for Multi-Robot System using Hovering Eye	40,000	
Prof. Swati Khandare	Omnivision Quadcopter	40,000	

Prof. Vricha Chavan	Text to Speech Conversion	40,000	
Prof. Uday Rote	Analysis Design of Energy Efficient Routing algorithm for Wireless Sensor Networks	45,000	
Prof. Vivek Mane and Dr Harsha Mishra	Treatment of Hospital wastewater with groundnut shell powdered activated carbon	35,000	
2013-2014			
Dr Harsha Mishra	Physico Chemical characteristics of Hospital wastewater	35,000	1,25,000
Mrs Priya Hankare	Fast detection of circumscribed mass in mammograms employing radial basis function neural networks)	40,000	
Mr Kiran Rathod	Design of microstrip array antenna for bandwidth enhancement	25,000	
Mrs Swati Shinde	Fabric defect detection by using image analysis	25,000	
2012-2013			
Prof. Sanjiv Badhe	Synthesis & Characterization of Nano Ferrites	25,000/-	2,32,000
Prof. Vrushali Deole	Critical Approaches to Gender-related Queer Themes in Greek and Indian Mythology	10,000	
Prof. Umesh Shinde	Synthesis & Structural Studies of NanoStructure Magnetoresistive oxides	25,000	
Prof. Shaheen Pathan	Green Synthesis and Characterization of carbon nanomaterials from biomass	25,000	
Dr Milind U. Nemade	Gui Based Quantitative Performance Comparison Of Single Channel Speech Enhancement Techniques For Personal Communication	18,500	
Mrs Pradnya kamble	Touch screen based medical vending machine for society welfare	23,500	
Mrs Shilpa Joshi	Removal of impulse noise from monochrome and colour images using different filtering techniques	20,000	

Table 3.21 List of ongoing projects that received grant from UoM for the year 2016-17

Title/Topic	Name of the researcher	research grant (Rs)	Total research Grant in Rs
Wireless Health Monitoring System using personal area network	Prof. Pradnya Kamble	25,000	4,06,000
Tree Climbing coconut plucker	Dr Vaishali Wadhe	35,000	
Processing of infrared Thermal Images for early breast cancer disease detection using colour image analysis	Prof. Priya Hankare	30,000	
Developing a computer-based information system to improve the diagnosis of blood	Prof. Rupali Satpute	20,000	
Design and development of Rectangular slot and angular ring slot wearable broadband circularly polarised textile antenna for medical application	Prof. Kiran Rathod	25,000	

A Computer Vision based Automatic Gate Control for Vehicle recognition	Dr Jayashree Khanapuri	31,000	
Development of FPGA-based controller area network sniffer for prosthetic limbs	Prof. Sagar Mhatre	25,000	
Antinutritive features of little-known legume Dolichosbiflorous(kulthi) from drought prone areas of Maharashtra	Dr Harsha Mishra	30,000	
Inclusion of Queer Gender in Indian Mainstream and Bridging Gap between Myth and Reality	Prof Vrushali Deole	20,000	
Design and fabrication of walking assistance device for paralysed patient	Prof.Jitendra Shelar	30,000	
A Study of library branding through implementation of value added services for enhancing library usage	Mrs.Gauri Gothivrekar	25,000	
Voice Controlled Wheelchair using Android Mobile	Prof.Sheetal Jagtap Prof.Sejal Shah	35,000	
IoT-based Maximum Solar Power Point Tracking System For Greenhouse Application	Prof.Ganesh Wadmare	25,000	
Enrich Security in MANET by avoiding Wormhole Attack.	Prof.Vaishali Gaikwad	25,000/-	
Water Quality Monitoring System using Wireless Sensor Network and Data Mining	Prof. Kavita Bathe	25,000/-	

Table 3.22 List of Industry sponsored projects

Title/Topic	Industry	research grant (Rs)	Total research Grant in lakhs
Mobile App for Farmers	GBL	Sanctioned (Rs. 46,00,000/-) 10,00000/- received	46,40,000/-
Admission Process Management	GVAIET	40,000/-	

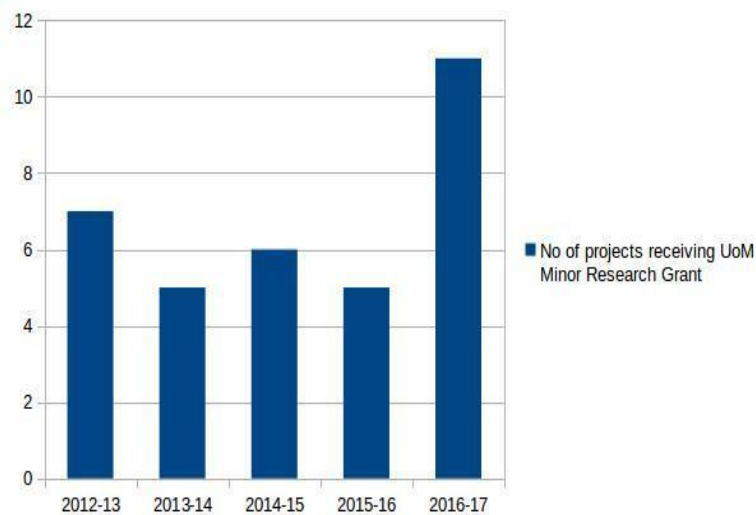


Fig. 3.1 Year wise grant received from UoM

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars within the campus?

Presently, M. Tech. or PhD course is not run by the institute. We are in process of commencing the same. The college encourages participation of students and Staff in carrying out research activities. Some of the Departments have project lab for the students to carry out research. Some of the facilities available to students are given below:

- Matlab TAH license which is useful for a wide range of subjects.
Development boards for embedded and signal processing applications.
- The Chemistry lab has CVD furnace useful in the synthesis of nanomaterials and spectrophotometer, ORP meter, Beckman's Thermometer, and Shimadzu electronic balance used to carry out research activities.
- Internet and Wi-Fi facility is available.
- Our central library is fully computerised. The Library has various facilities for the faculty and students who wish to pursue research. It is kept open for extended hours and also on weekends. Institute has acquired access to a wide range of online journals.
- Security is provided to the students and faculty who are involved in research activities especially up to late hours and on holidays.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

In order to enhance research activities, the Institute is continuously striving to bridge the gap between industry and institute. This is possible only with improvement in infrastructural facilities which will facilitate research in new and emerging areas. Following are some strategies for planning, upgrading and creating infrastructural facilities:

- Directions on improvements in research activities of the Institute are suggested by GB, LMC and RAC members.
- Suggestions from these committees are then thoroughly analysed by R & D cell of the Institute and implemented.
- Each department of the institute has equipment /software required by students and faculty for the research work. Procurement of equipment and other infrastructural facilities are done on a regular basis.
- Institute has entered into MoUs with 14 different organisations/industries for carrying out collaborative projects, internship/training programmes.
- Institute participates in outreach activities of IITs like e-Yantra and have setup lab required to work on embedded systems and robotics related projects.
- As per requirement of the lab, we have calibrated measuring instruments of all departments.
- The library of the Institute is equipped and updated with a wide range of books and various national and international journals.

- Faculty and students are encouraged to attend research programmes, workshops, seminars and conferences conducted by the Institute and at other organisations.
- Institute has plans to establish labs for IoT.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If ‘yes’, what are the instruments/facilities created during the last four years.

Institute has received grants from stakeholders and professional bodies to develop research facilities. These facilities are optimally used by staff and students. The details of the utilisation of the grants are as listed below in Table 3.23

Table 3.23 List of equipment received from Industry

Donor Name	Particulars of Donation	Amount (in Rs.)	Year	Facilities created
Mr. Prashant Nair (Alumnus)	High-end Server configuration desktop PC	80,000/-	2015	Private cloud setup (ongoing)
IET	3 IOT Kits	3,00,000/-	2015	IOT lab set-up(proposed)
ARM	100 Keil Professional Software licenses	Worth 2,60,00,000/-	2014	Being used for prototype projects
ARM	ARM Cortex M3	Worth 68,594/-	2014	Being used for Embedded system based projects
UoM	CVD Furnace	25,000/-	2013	Used for various research projects

3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

The Institute takes a special interest in collaborating with reputed industries and research organisations. This activity has resulted in providing internship, hands-on experience with live projects, research guidance to students.

- Our institute is having a Google app for online facilities including a common circulation facility (GCC) under the Somaiya Trust. Any member can borrow books from any library under the Somaiya Trust. All Somaiya users will be able to borrow one book for 7 days from any other Somaiya library.
- Institute is having external library membership with Indian Institute of Technology, Bombay(IITB) Library, Institution of Electronics and Telecommunication Engineers (IETE), Developing Library Network (DELNET).
- The Somaiya Trust has formed Research Innovation Incubation Development Laboratory (RiiDL) to focus on research. Faculty members and students have free access to the RiiDL facilities.
- INUP infrastructure was used by the faculty members from IIT Bombay.
- Faculty members are allowed to attend FDP, SDP in all another institute with financial support.

- Regular discussions with doctors of K. J. Somaiya Hospital and Aditya Jyot Eye Hospital are done to identify problems from medical field and healthcare. Based on their input and research ideas, the projects are developed.
- Field-based experiments can be carried out with real-time data from Godavari Biorefineries Ltd. and KIAAR.

3.3.5 Provide details on the library/ information resource centre or any other facilities available specifically for the researchers?

Our central library is fully computerised by automating the issue of books with bar code reader. The Library has the following facilities for the faculty, staff and the students who wish to carry out research:

The Library adheres to following features with respect to the various recommendations received from the members time to time.

- More than 18616 book volumes with 5502+ reference titles.
- Library catalogue is available online on the link <http://114.143.198.3/opac/>
- Online book reservation and online book renewal facility are given to staff and students.
- More than 500 online journals (viz; IET, IEEE, Springer, ACM, ASME, ScienceDirect digital library) are available.
- As the e-journals access is IP based, the stakeholders can take benefit of this facility from anywhere anytime. No limit for concurrent users.
- The e-journal access is very simple as the app for the same is provided in the Somaiya mail's apps list. (Library Somaiya app). Every Somaiya student can access the same from anywhere.
- Current contents of latest arrived print journals are provided to all readers on Somaiya mail for ready reference.
- The library comprises of 11 computers with Internet facility for student access.
- Library also earmarked a computer for NPTEL lecture series with an 8 Terabyte hard disc.
- IET UK Physical Book borrowing facility available to all IET members (3 books at active).
- Open access facility is available. Library Staff promptly helps students for searching books.
- The library has external memberships such as IIT Library Membership, DELNET membership, IETE Life membership.
- Global Common Circulation model enables every student of every Somaiya institution to borrow a book from any of the Somaiya Library out of 34 Somaiya institutions.

3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the college? Forex. Laboratories, library, instruments, computers, new technology etc.

- a) The institute has following laboratories which can be used for interdisciplinary research projects as shown in Table 3.24 below:

Table 3.24 List of Laboratories

Lab Name	Collaborating Agency	Establishment Year	Project type	Remark
E-Yantra	IIT Bombay	2016	Robotics	Our staff trained by IIT-Bombay for eYantra Lab establishment. Our college invested Rs.2 Lakhs.
IoT Lab	IET, Mumbai LN	2016 (proposed)	IoT related Sensor based Data Analytics IoT security IoT networking Protocols	3 IOT kits were donated
Embedded Systems Design Lab	Eduvance Technologies & ARM University programme	2015	Embedded Systems Projects	ARM Kits with 100 Keil licenses were donated.
Software Development Cell	KIAAR, Sameerwadi	2014	Web-based / Android based Applications. IoT applications	Onsite problems are given by KIAAR, for development of projects

b) Library

- Library facilitates access to online journals shared with other Institutes of Somaiya Trust.
- Institute has a membership with IIT Bombay to avail their library facility to our students and faculty members.
- The library has IET membership.

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of

- *Patents obtained and filed (process and product)*
- *Original research contributing to product improvement*
- * Research studies or surveys benefiting the community or improving the services*
- * Research inputs contributing to new initiatives and social development*

Our staff and students are actively involved in research related activities. Following are the details of research achievements as shown in Table 3.25, 3.26 and 3.27.

Table 3.25 List of patents filed by students and faculty

Sr. No	Faculty and students involved	Title of Patent	CBR no	Appln no
1	Prof. Harshvardhan Ahire, Hema Manjule, Rohan Chande, Shahbaaz Shaikh	Encrypted Transaction for Debit card and credit card	721	149/MUM/2015

2	Vibhuti Mishra, Ashish Mehta	Stationery./01-01	1355	279768
3	Prof. Pranali Hatode, Digant Pandya Roshan Patel Pratikesh Vishe Harsh Patel	System for safe vision	27928	201621034030
4	Dr. Suresh Kisanrao Ukarande Dr. Sunita R. Patil Deep Kataria Arvind Pratima Gandhi Priyanka Vilas Shailaja Matkar Ankita Ankush Anita	The Saviour Bag	Permanent Complete Patent Application No:201721009725	
5	Dr. Suresh Kisanrao Ukarande Prof. Sandhya Devendra Kadam Raunak Chauhan Aarti Sahitya Bansilal Padma	Cluster Based Cognitive Storage	Permanent Complete Patent Application No:201721009726	

Table 3.26 Projects contributing to product improvement

Title of Project	Sponsoring agency	Project Leader	Year in which started	(In Rs.)
Voice Controlled wheelchair using Android Mobile	Grant from Mumbai University received	Prof. Sheetal Jagtap	2016	Prototype (8,000/-)
Chemical Vapour Deposition Setup	KJSIEIT &UoM	Prof. Shaheen Pathan	2013-2015	37,583/-
Faculty Feedback and Report Handling	KJSIEIT	Prof. Nilambari Joshi	2014	Using open-source software Free
Admission Process Management	KJSIEIT	Prof. Shyamal Virnodkar	2014	1,50,000/-
Attendance Academic activities Monitoring and Reporting Application	KJSIEIT	Prof.Sanjiv Badhe	2011-12	Using open-source software Free

Table 3.27 Studies or surveys benefiting the community

Title of the project	Scope of the project	Project leader	Year
Learning Aid for Autistic Kids	Learning guide for autistic kids	Prof. Shubhda Labde	2016

Maths Kida	E-Learning for Students	Prof. Shubhda Labde	2016
NLP based Data Analysis And Dynamic Survey	Data Analysis to improve Education System	Prof. Nilambari Joshi	2016
Water Analysis	Used by farmers at Nareshwadi for agriculture and domestic purpose	Prof. Shaheen Pathan	2016
Fundus Image Processing for Diabetic Retinopathy	Detection and diagnosis of diabetic retinopathy amongst the patients.	Dr. Amol Deshpande, Dr. Jayashree Khanapuri	2015
Gender Metamorphoses & sexual Transformation in the works of Dr.Pattanaik in the context of Indian Mythology”	Social Studies and Gender Studies	Dr.Vrushali Deole	2015
Changing Trends in Tragic Expressions in Drama: A Journey Through Three Classics (Oedipus Rex, King Lear, Mother Courage And Her Children)	To learn how important human issues have been and how they have always been addressed through the art of theatre.	Dr.Vaishali Ghadyalji	2014
Android-based Expert System for Farmers	Provides online guidance to farmers	Prof. Kavita Bathe	2015
GIS-based Farming System	Provides guidance to farmers based on GIS images	Prof. Shyamal Virnodkar and Prof. Vricha Chavan	2015

***Research inputs contributing to new initiatives and social development**

- Automated Wheelchair with Android features is designed to mobilise disabled persons without external help, developed by a group of students.
- Automated Tissue Culture Lab developed by a group of faculty members and students has resulted in energy saving.
- To help the farmers of rural areas of Karnataka, the smart farming system was developed by faculty members and students based on inputs given by Godavari Biorefineries Ltd., Sameerwadi.

3.4.2 Does the Institute publish or partner in the publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

No

3.4.3 Give details of publications by the faculty and students:

- ✓ *Publication per faculty*
- ✓ *Number of papers published by faculty and students in peer-reviewed journals (national/international)*
- ✓ *Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)*

- ✓ *Monographs*
- ✓ *Chapter in Books*
- ✓ *Books Edited*
- ✓ *Books with ISBN/ISSN numbers with details of publishers*
- ✓ *Citation Index*
- ✓ *SNIP*
- ✓ *SJR*
- ✓ *Impact factor*
- ✓ *h-index*

A number of papers published by faculty and students in peer-reviewed journals (national/international) are as shown in Table 3.28 below

Table 3.28 Number of Papers Presented / Published by faculty members

Department	No. of publications in conference proceedings / Journals	Books with ISBN/ISSN numbers	Citation Index (Max)	Impact Factor		h-Index (Max)
				Min	Max	
EXTC	76	01	3	2	10.5	2
Computer	45	--	3	0.8	7.14	1
IT	48	--	5	3.8	5.1	2
ETRX	54	04	19	0.5	6.17	2
B S & H	55	06	4	1.3	6.3	1

✓ *Books with ISBN/ISSN numbers with details of publishers*

● **Dr. S. K. Ukarande:**

➤ **Books Published:**

1. “Engineering Mechanics - Statics”, ISBN 81 7660 115 2, Everest Publishing House, Pune, 414 pp., Ed 2004
2. “Fluid Mechanics and Hydraulics”, ISBN 978-93-8116-253-8, Ane books Pvt. Ltd New Delhi, 684 pp., (Ed 2012)
3. “Irrigation Engineering and Hydraulic Structures (Abridged Edition)”, ISBN 978-93-8365-689-9, Ane books Pvt. Ltd New Delhi, 321 pp., (Ed 2015)
4. “Numerical Modeling of Coastal Aquifers” ISBN 978-3-639-17552-3, VDM Verilog-D Muller & Co. KG, Germany, pp. – 184. 2009, (Ph. D. Thesis is Published in the form of book/monogram)

➤ **Articles Published:**

1. “To Achieve Excellence in Technical Education” published in magazine “Construction and Business Records”, volume - 7, Issue -10, dated 15th - 31st December 2008.

2. “Status of Irrigation in India “, published in magazine “Construction and Business Records”, volume -7, Issue 11, dated 1st to 15th January 2009.
3. “Seawater Intrusion Problem in Coastal Aquifers”, published in magazine “Construction and Business Records”, volume 7, issue 13, dated from 1st Feb. to 15 Feb. 2009.
4. “Use of Water - Planning and Management”, published in magazine “Construction and Business Records”, volume 7, issue 15, dated from 1st – 15th March 2009.
5. “Inter-basin Transfer of Water for Development of Arid Region”, published in magazine “Construction and Business Records”, volume 7, issue 19, dated 16th – 31st May 2009.
6. “Conjunctive use of Water Resources”, published in magazine “Construction and Business Records”, volume 7, issue, and dated 16th – 30th June 2009.
7. “Roof Top Rain Water Harvesting”, published in magazine “Construction and Business Records”, volume 7, issue, dated 1st - 15th July 2009.
8. “Rural Rain Water Harvesting”, published in magazine “Construction and Business Records”, volume 7, issue 15, dated from 15th – 30th July 2009.

- **Dr.Vaishali Ghadyalji:**

“Communication Skills” Fourth Revised Edition in 2017, bearing ISBN No.978-93-85241-23-9, Nandu Publications, First published in 2009, reprinted in 2009, second revised edition 2010, reprinted in 2011, reprinted thrice in 2012, third revised edition in 2013, fourth revised edition in 2017.

- **Dr.Vaishali Wadhe:**

"Cloud Computing" bearing ISBN 978-3-639-71565-1 has been published and is been commercialised worldwide. It is internationally published by Scholar's Press. Scholars' Press is a trademark of OmniScriptum GmbH & Co. KG, Heinrich-Böcking-Str. 6-8, 66121, Saarbrücken, Germany. In Germany, its price is €89.90 (Euro). It is available on Amazon.com for \$138.

- **Dr.Harsha Mishra & Prof. Shahin Pathan:**

“Chemical composition of Kulthi Seeds -Nutritional Aspect”, 2011
ISBN-13: 978-3845423753 LAPLAMBERT Academic Publishing, Germany.
(Book/Monograph)

✓ ***Books without ISBN/ISSN numbers with details of publishers:***

- **Dr.Milind Nemade:**

1. Published book on “Principles of Computer Engineering”,
Publisher Name: Vipul Prakashan Girgaon, Mumbai in the year 1998.
2. Published book on “Filter Theory”,
Publisher Name: Vipul Prakashan Girgaon, Mumbai in the year 1999 (First Edition), 2001(Second Edition), 2003(Third Edition).
3. Published book on “Computer Organization and Architecture”,
Publisher Name: Vipul Prakashan Girgaon, Mumbai in the year 2003.
4. Published book on “Digital Computer Fundamentals”,
Publisher Name: Vipul Prakashan, Girgaon, Mumbai in the year 2005.

- **Prof.Namrata Gharat:**

1. Published a book on “Basic Electrical And Electronics Engineering”
Publisher Name: Vipul Prakashan, Girgaon, Mumbai in the year 2005

3.4.4 *Provide details (if any) of*

**research awards received by the faculty*

**recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally*

**Incentives given to faculty for receiving state, national and international recognitions for research contributions.*

The efforts put in by faculty members and students are well appreciated by various national and international organisations. The details are mentioned as below:

Recognition received by the Institute by various national and international organizations:

- The Institute has received ‘Best Engineering Institute Award for the year 2015-16’ by ISTE Maharashtra & Goa Section in 13th ISTE Annual State Convention for developments of the institute in engineering and technology streams on January 2016 .
- The Institute has received Best Academic Affiliate Partner Award by International professional body, “The Institution of Engineering and Technology (IET)” for conducting various technical and social activities for students and faculty members in Mumbai region and across India for the year 2015-16.
- The Institute has received Golden Category Award by AICTE CII IndPact Survey conducted for Industry Linked Technical Institutions Category for the year 2015-16.
- The Institute has received Active Chapter Award by NPTEL , IIT Bombay for using online video lectures for Learning by students and Faculty in the academic year 2015-16.
- The Institute has received AA Grade Award by NPTEL , IIT Bombay as valuable local chapter based on performance in online certification courses for the academic year 2016.

Recognition received by the faculty nationally and internationally:

- Dr. Suresh Ukarande, Principal has received ‘Best Engineering Principal Award’ by ISTE Faculty chapter for the year 2016-17 for Maharashtra & Goa Section in 14th ISTE Annual State Convention at BVCOE, Pune for his contributions to engineering & technology fraternity under UoM.
- Prof. Vaishali Gaikwad, Asst. Prof. from Dept. of IT has been awarded as “Best promising teacher for student engagements in technical and innovative activities” by The international Professional body, The IET.
- Dr.Vaishali Wadhe, Assistant Professor in EXTC Department has received “Chairman’s Award for Outstanding Faculty Performance Award-2014” under Somaiya’s Educational Achievement Awards 2014.
- Prof. Vivek Mane, Asst. Prof. of BS&H Dept. received prestigious ISTE- G.S.F.C National Award for “Best M.Tech. Thesis in Mechanical Engineering”. He has also received FIRST PRIZE in 44th ISTE Annual National Convention held at Thiruvananthapuram, Kerala on 27th November 2014. He was also awarded by “Provost Award for Academic Self Enhancement” on 57th Foundation Day Award 9th Sept. 2015 at Vidyavihar.

- Dr Amol S. Deshpande, Asst. Prof. of EXTC Dept. received a first position in the PhD Category (Engineering and Technology) at the University level for his research work entitled “Partial Discharge Analysis in High Voltage Insulation Systems” & represented Mumbai University in Inter-University State level Research Convention “AVISHKAR 2015” during 21-23 Jan 2015 at Nagpur.
- Prof. Kavita Bathe has received “Inter-disciplinary research award” by Somaiya Trust in 2015.
- Prof. Shyamal Virnorkar has received “Outstanding Performance in Teaching Award” by Somaiya Trust in 2015.
- Prof. Jyoti Wadmare, Asst. Prof. of Dept of Computer Engg. has received “Instrumental Role as a SPOC from NPTEL” for the year 2016. She has also been appreciated as “ NPTEL Brand Ambassador” at institute for the academic year 2015-16.
- Prof. Harsh Bhor along with student project group has received 2 nd rank at “ISTE Maharashtra Engineering Design award” held at VIT, Vellore, Tamilnadu in 2016.
- Prof. Nilambari Joshi has been awarded as “Promising Teacher for 2015-16” by Somaiya Vidyavihar trust.

3.5 Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

The industry-institute interface is set up by the institute to bridge the gap between industry requirements and academic curriculum. This program helps faculty members to co-relate classroom activities with real world applications. It aims at providing exposure to the students to the current industry trends, work culture and real-time problems being addressed and thus makes them industry ready.

The strategies followed to establish institute-industry interface are as below:

- Institute has industry resource persons as part of our Governing Body / Research Advisory Committee as well as Departmental Advisory Committee. Expert talks, workshops, seminars are arranged by the department as well as institute level by these experts for students.
- Industry Institute Interaction Cell takes an active part in reaching out to different industries and signing MoUs with those who are interested in providing internships to the students and guiding them by knowledge sharing.
- The institute organises pool campus recruitment drive and invites many industries as a part of it. Project competitions are organised to showcase students’ projects to Industry experts who are invited to judge the competition.
- Alumni committee reaches out to alumni to seek their involvement in guiding and training the students.
- Students are encouraged to participate in competitions organised by different industries.
- Real-time application development projects are undertaken by the Software Development Cell from Industries.
- Each of these committees has active involvement of faculty representatives from each department.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicised?

The institute promotes consultancy work since it believes the expertise of faculty members can be utilised constructively in solving real time problems. The institute has set up a separate Cell “Software Development Cell” (SDC) to undertake consultancy projects. SDC constitutes core group of faculty members. Additionally, as per project needs, other faculty members and students from different departments are encouraged to contribute. The institute reaches out to industries under parent trust as well as other institutes to seek consultancy work.

The work done by the cell is publicised in following ways:

- a. Brochures are printed and circulated to prospective clients.
- b. There is a separate marketing team involving a faculty and two students who arrange meetings with prospective clients to demonstrate the product/ideas.
- c. Details of the projects developed by the cell are publicised on the college website.
- d. The details of proposed project ideas / existing solutions are presented in brief to external visitors who visit the institute as part of GB, RAC.
- e. The cell has collaborated with RiIDL, Somaiya Trust’s R & D initiative, where we get a chance to showcase our products in their exhibitions/events.

3.5.3 How does the institution encourage the staff to utilise their expertise and available facilities for consultancy services?

The institute facilitates members contributing into consulting activities by following ways

1. Considering the demand of meeting timelines to deliver a solution, the institute reduces academic load and provides concession in administrative responsibilities of faculty members involved in consultancy projects.
2. For high priority consultancy projects, the institute also provides facility to avail of sabbatical leave for maximum 6 months and can be increased based on requirement.
3. The institute supports consultancy cell by paying travel allowances and seed money.
4. The institute also provides infrastructure, hardware /software facilities of the institute and procures need-based equipment.

3.5.4 List the broad areas and major consultancy services provided by the institution and revenue generated last 4 years.

The consultancy projects have done many projects across different business domains and provide technical solutions using expertise from different disciplines.

Consultancy is mainly provided in following areas:

- Web Applications development.
- Desktop Application development.
- Mobile Applications development
- Internet of Things.

- Geographical Information System
- Data mining.
- Real-time Location Tracking System

Different Business Verticals serviced through consultancy projects are as below:

- Agriculture
- Education
- Marine

The consultancy projects have generated Rs. 46,40,000 and also saved around worth Rs. 2,00,000/- of the Trust and the team was able to get funds of worthy Rs. 10,40,000/- for consultancy project till date as shown in Table 3.29 below.

Table 3.29 List of Consultancy Projects

Project Title	Customer Details	Revenue generated / Savings (in Rs.)
Mobile App for Farmers	GBL	46,00,000 10,00,000 (received)
Faculty Feedback System	KJSIEIT	30,000
Admission Process Management (KJSIEIT)	KJSIEIT	1,50,000
Admission Process Management (GVAIET)	GVAIET	80,000 (Invoice submitted) 40,000 received
Examination Management Application	KJSCSC	Installation in process
Soil Fertiliser Calculator	KIAAR	20,000
GBL Street Light Automation	GBL	30,000
KIAAR Autoclave Automation	KIAAR	10,000
Export Data to Vidyavihar Data Centre.	Somaiya, Vidyavihar	30,000
Fee Reconciliation Report	KJSIEIT	5,000
FE data export	KJSIEIT	5,000

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

The policy of Institution: It has been decided in the GB meeting to share income generated through consultancy in ratio 70:30 between staff involved in and institute(as per rules of the university).

The income generated will be utilised by the institute to

- Procure new hardware
- Expand infrastructure
- Procure new advanced software technology
- Use as Seed money for novel project ideas
- Train students and staff members for future prospective projects

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 *How does the institution promote institution-neighbourhood community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?*

Our Institute belongs to a charitable trust, known for the various philanthropic activities undertaken by them. We try to emulate the activities of our respectable founder late Shri Padmbhushan K.J. Somaiya in our own way. Many staff and students are involved in various service activities are trying in their own way to bring about a change in the society. Institute appreciates efforts of such students and staff. We believe it is a step towards accomplishing our mission “To inculcate ethical behaviour, responsibility and commitment among students.”

The following activities shown in Table 3.30 are examples of this.

Table 3.30 List of events organised

Chapter	Event	No. of participant	Date	Venue
Donations	Donation of unused/unexpired medicines, to Manav Jyot NGOI, stationery and books donated to Aarambh	Student Council	23/1/2017 to 25/1/2017	KJSIEIT
Green club- Creating Environmental Consciousness	Installation of Composting basket for canteen waste	10	20/1/2017	KJSIEIT
KJSIEIT, ISTE-Faculty chapter & WDC	Workshop on ‘stress relief through aerobics’	50	19/11/ 2016	KJSIEIT
IET & KJSIEIT	IET-Nurturing Intelligence for Curious Engineers -NICE-2K16 Regional Level Competition Organised by KJSIEIT-IET	National. Teams from Mumbai, Nashik, Dhule, Pune No. of participants 150	03/09/16	KJSIEIT
KJSIEIT & IET, CSI, IEEE	One day drive on theme “Engineering Education and Awareness”	55 groups (4-5 students per group)	1/09/16	School and Junior colleges, Mumbai and Navi Mumbai region
ISTE & NSS Chapter	International Yoga Day	40 (Staff + Students)	21/06/2016 to 23/06/2016	KJSIEIT
IEEE	Robotics Workshop	35	6/4/2016 to 7/4/2016	Nareshwadi
Team Dramebaaz	Street Plays	20	2/10/2015	Chunabhatti Station

NSS- KJSIEIT	Republic Day Celebration	20	26/1/2017	Towerwadi (Celebration of republic day with villagers and conducted seminar on importance of Higher studies)
	NSS Camp	20	26/12/2016 to 2/1 /2017	Towerwadi (Survey of sock pit, create awareness of cleanliness, dug 45 sock pit by NSS student with villagers)
	Voter Awareness Drive	50	10/10/2016 to 20/10/2016	KJSIEIT
	Station Beautification with them on education	150	02/10/2016 to 08/10/2016	Kurla Railway Station
	Nasha Mukti Maharashtra Rajya(rally)	27	1/10/ 2016	University (rally)
	Blood Donation Camp	69	23/9/ 2016	KJSIEIT
	Electricity Week (College)	35	8/3/2016 to 15/3/2016	KJSIEIT (Survey and create awareness to save electricity)
	Swachh Bharat Abhiyan	37	29/2/2016 to 3/22016	Chunabhatti Station
	Road Safety Campaign	41	12/01/2016 to 15/01/2016	Dadar, Sion
	Volunteering Camp	22	22/12/2015 to 29/12/2015	Nareshwadi
	Swachh Bharat Abhiyan	37	02/10/2015	Chunabhatti Station
	CPR(CARDIOPULMONARY RESUSCITATION)	38	29/09/2015	K. J. Somaiya College of Nursing (Given training to NSS students)
Faculty and willing students	Helping hand	04	2016-17	KJSIEIT (Financial help to our students by faculty)
	Helping hand	08	2015-16	
	Helping hand	19	2014-15	

	Helping hand	20	2013-14	KJSIEIT
	Blood Donation Drive	69	23/10/2016	
		46	12/10/2015	
		80	25/2/2015	
		59	7/10/2014	
		55	28/2/2014	

3.6.2 What is the Institutional mechanism to track students’ involvement in various social movements/activities which promote citizenship roles?

The student involvement in social movements and activities are monitored and tracked by following measures:

- Every department has a faculty coordinator whose responsibility is to gather information regarding students’/ staff’s achievements, be it in academic, co-curricular, extra-curricular and social activities.
- Every department has proctors, who are assigned, with a group of 20 students per proctor. These proctors act as mentors for the students for their duration in the institute. Their job is to track all the activities done by the students, their attendance record, their academic record and their social involvement as well.
- Institute has student council which plays a vital role in interaction with the students and getting details of their involvement in different activities.
- The coordinators of all professional bodies, hobby clubs and all other committees including those involved in extension activities submit a report of their activities every semester to IQAC.
- Departments submit a term-end report to IQAC every semester which contains an account of all the above data.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

Institute is concerned about its stakeholders who include students, parents, staff, alumni, recruiters, management etc. Their perception, opinions and suggestions are highly valued.

Students:

- Every semester twice the feedback is taken from the students regarding teaching learning process. Heads of Department analyses the feedback to take corrective action if required. This feedback is also considered during subject distribution. Proctors regularly conduct meetings during the semester to discuss various issues faced by the student and matters of importance are brought to the notice of higher authorities. Students can freely approach any faculty, principal, management and voice their opinions.
- We have a student welfare committee headed by the Dean Student welfare and

faculty coordinators looking after cultural, sports, and technical activities. A student council, which functions as the voice of students is part of this committee. We are able to gauge the pulse of the students through this committee and also through the many professional chapters.

Parents:

- The institute conducts Parent - Teacher Meeting (PTM) twice a semester and obtains feedback from parents. Parents are also informed about their ward's performance through regular communication via letters, phone calls and SMS. Parents are involved in the ecosystem of the institute by inviting them to be members of advisory committees, expert talks, judges for various events etc.

Staff:

- Departmental meetings, various committee meetings, Local Management Committee meetings ensure that views of the staff members are considered and taken into account in formulating any policy. Senior faculty are members of IQAC, DAB and DQC which are important in the decision-making process.

Alumni:

- Institute has a registered KJSIEIT Alumni Association. We also have a Dean Alumni and a team to assist him in establishing contact with the alumni. Alumni are invited as judges/ speakers for various activities and are also members of advisory committees of the department.
- Every year Institute conducts alumni meet. Alumni inputs are considered positively for improvement of the Institute.

Recruiters:

- Institute has Training and Placement Cell which interacts with industries and conduct training and recruitment programs for the students.
- Feedback from recruiters is taken into account for making students industry ready.
- Industry experts are part of DAB, R & D, IQAC, GB and LMC, and their suggestions are used to bridge the gap between industry and curriculum.

Management:

All the activities of the college are conducted with the approval of the management. Management interacts with the Principal on a regular basis and we also have two Governing Body meetings in a year. There are eminent personalities in the Governing Body who provide invaluable inputs to improve the functioning of the college.

3.6.4 How does the institution plan and organise its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

The college is regularly organising a number of extension activities which relate to academic, social, cultural and community service, all leading to building a healthy

society and nation. The institute reserves fund to support different social and extracurricular activities as shown in Table 3.31 below.

Table 3.31 Different social and extracurricular activity fund utilization

Activity	Expenditure (Rs.)	Year
NSS	22,000/-	2016-17
Robo-festival	76,000/-	2016-17
	45,000/-	2015-16
Environmental Activities	34,340/-	2016-17
	8,30,476/-	2015-16
	11,71,439/-	2014-15
	4,05,257/-	2013-14

- All the staff of the institute has donated salary of a day under PM Relief fund to support the tragedy happened in Uttarakhand in 2014 of Rs.1,28,523/-
- Faculty members and students contribute every year to the ‘Helping Hand Scheme’ to support economically backwards and academically good students.
- Institute regularly organises blood donation camps.
- Some students and faculty members train rural and tribal school students on recent technology like robotics. For example, a workshop robotics training level 1 and 2 was organised for school students from Karmaveer Bhaurao Patil Marathi and English medium school, Pratiksha Nagar, on 14th Aug 2016 by Roboclub in February 2017.
- Extension activities groom the students for overall development. It teaches them to be socially responsible hence resulting them to be good citizens.
- It inculcates qualities in the students like empathy, leadership, team building, communication, responsible social behaviour etc.
- We encourage final year students to take up projects of social relevance.

The details of donations are as shown in Table 3.32 & 3.33 below.

Table 3.32 Extension Activities and donations

Activity	Year	Activity name	Donation(Rs) to financially backwards students
Donation to financially backwards students by faculty	2016-17	Helping hand	40,000/-
	2015-16	Helping hand	69,000/-
	2014-15	Helping hand	80,000/-
	2013-14	Helping hand	1,29,000/-
Donations of Instruments	2015-16	Computer donated to Somaiya Vidyamandir, Laxmiwadi school	Approximate cost of 4,15,000/-
	2015-16	Donation of printers(7) to Somaiya Hospital	49,000/-

Table 3.33 Details of Blood Donation Camp

Sr. No.	Date	No. of Donors
1	23/10/2016	69
2	12/10/2015	46
3	25/2/2015	80
4	7/10/2014	59
5	28/2/2014	55

3.6.5 *How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?*

Students are made aware of extension activities through Google classroom announcements, website, emails, and display on notice boards and class announcements. The activities are scheduled without affecting students’ academics. Students are appreciated for their social activities by giving appreciation letters during events like Engineers day or during a parent-teacher meet and by highlighting their activities in Institutional Newsletter.

3.6.6 *Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from underprivileged and vulnerable sections of society?*

The institute through its extension activities promotes and inculcates values and responsibility in students. The active participation of students in social service activities gives them an opportunity to understand the lifestyle and standard of living of the underprivileged and their not so well to do peers, thereby instilling a feeling of empathy and courteousness. To ensure social justice and empower students from underprivileged and vulnerable sections of society the Institute is taking following efforts:

- NSS unit of the institute has conducted a camp at Nareshwadi - Children admitted to Nareshwadi are from underprivileged tribal families in the age group of 5 to 17 years.
- Ninety-five percent of them belongs to the local Warli tribal community with a few Kokanas, Katkari and Dodhi.
- About ten per cent are children of a single parent or are orphans of HIV infected and affected families.
- Our NSS volunteers have examined and repaired old computers to make them functional and upgraded the existing computers.
- They have coached 8th, 9th and 10th standard students in Mathematics, Science and English.
- Our students Interacted with children through sports, group games and competitions.
- They have conducted awareness programs on rainwater harvesting, and hygiene.

- Students are working on Teach for India NGO's initiative to extend education to all. The initiative focuses on surveying and analysing data constructively to identify lack of resources and to ensure their timely availability.
- Somaiya Robocell trains underprivileged children from rural areas in new technology like robotics. Annual Robo festival is conducted by the institute to encourage them and to appreciate their skills.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organised by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

It is our mission to impart ethical values, responsibility and commitment to students. Our extension activities are crafted to achieve the same. The expected outcomes are awareness of the needs of the underprivileged, empathy towards one and all and a sense of responsibility to contribute to the society.

Students working with NSS have reported that their experience with the tribal population of Nareshwadi has been cathartic. Same goes for students involved with all other extension activities be it tree-plantation, robot festival for school children, NICE, traffic regulation, collaborative projects etc. They have all reported a sense of accomplishment and joy. When selecting topics for the project, it is urged to find projects which are useful to the institute or to the society. This makes them analyse simple things and to come up with ideas to better them. They are left with a sense of purpose and a desire to do more.

Expected objectives of the extension activities are as follows:

1. Increase communication with underprivileged sections of society to understand their problems
2. To use technology and expertise to address their problems.
3. To use young minds and their efforts to improve the standard of living of the society.
4. Create awareness among society to save natural resources.
5. Contribute to societal needs through activities like supporting blood donation camp.

The results of the participation in the various socially relevant activities have resulted to inculcate qualities in the students like leadership, working in a team, communication, responsible social behaviour etc. It also helps to improve their emotional quotient.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? The detail on the initiatives of the institution that encourage community participation in its activities?

The institution is roping in communities to actively participate in all the extension activities. This has contributed to both community and institution interaction and development of the institution.

- Students and staff of the institute have worked on e-waste management initiative.

The models created are demonstrated to the parents and expert guests visiting the institute to create awareness of how e-waste can be utilised. Different award-winning projects are demonstrated during different events such as parent-teacher meeting, alumni meet, Somaiya foundation day. Underprivileged students are actively involved in the Robofest activity of our institute.

- The benefits to the local community from the various Extension Activities of the institute have been as follows:
 - 1) The foundation to turn India into a strong nation has to be laid down at primary and rural levels and so the quality of education right from the beginning should be excellent. That's why the students of KJSIEIT are conducting various workshops on robotic technology to impart their technical knowledge among school children in rural areas and trying to build the mindset of these poor students to learn and work on the upcoming technology to become a part of our "SKILLED INDIA". They are conducting Robotic Workshops in every school of our Somaiya organisation, since last three years.
 - 2) Cardiopulmonary resuscitation (CPR) training was organised by Somaiya hospital. NSS students participated in the activity where following points were covered:
 - Build confidence to save life.
 - Create a culture of health and safety.
 - Develop skills to handle cardiac emergencies (CPR).

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

The institute is always willing to initiate activities to bring betterment in the society. With the intention, it has worked with different organisations to promote various extension activities. Through these activities, the institute has formed a constructive relationship with the organisations working in rural areas. The list of organisations involved in extension activities are as below:

1. Somaiya Hospital, Ayurvihar campus, Sion, Mumbai
2. Nareshwadi Learning Centre, Dahanu, NH8, Dhundalwadi, Maharashtra 401610.
3. Teach for INDIA, NGO
4. Sharda English Medium, Kopargaon,
5. Somaiya Vidya Mandir, Sakarwadi,
6. Somaiya Vidya Mandir, Lakshmiwadi
7. K. J. Somaiya Secondary School, Nareshwadi, Dahanu
8. K. J. Somaiya English Medium, Samirwadi
9. S. K. Somaiya Vinay Mandir, Kannada School, Samirwadi, Karnataka
10. Karmaveer Bhaurao Patil High School, Sion

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

Dr Vaishali Wadhe has got state level award of "SAMAJ RATNA" by Mantralaya Varta, Mantralaya, and Maharashtra State at the hands of Shri. R. R. Patil, Home

Minister, Government of Maharashtra, for taking initiative in working towards the welfare of underprivileged, downtrodden and weaker sections of the society.
 Dr Vaishali Wadhe has got state level award of “SAMAJ BHUSHAN” by Beldar Samaj Seva Sangh, Nashik, Maharashtra, for taking initiative in working towards the welfare of underprivileged, downtrodden and weaker sections of the society.

3.7. Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities? Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

The institution has collaborated with many companies, industries, R & D organisations and other institutions for mutually beneficial relationships that include technical and personality development programmes for students and faculty, sharing of physical resources etc., The following Table 3.34 shows the details of some of our collaborations with various organisations.

Table 3.34 Details of MOU/NDA/Internship Program Signed with Industries

Industry Name	MOU/ NDA	MOU Signed Date	Details
Data Byte Services and Systems, Mumbai	NDA	07-05-2014	Development of Research Project
ARK Technosolutions, Thane	MOU	15-06-2014	Research Lab Setup, training to students and faculty, sponsoring projects
Gilbarco Veeder-Root Ind. Pvt. Ltd. Mumbai	MOU	11-08-2014	Internship Program for students
Copper Track Industries, Nashik	MOU	13-08-2014	Industrial visits, Campus Interview, Sponsor Projects, Guest Lectures and training programs for faculty and students etc.
Applied Digital Microsystems, Mumbai	MOU	15-09-2014	Sponsoring Research Projects, Sponsoring Students Projects, Industrial visit and guest lecturers etc.
R.S. Industrial Heating Systems, Mumbai	MOU	20-09-2014	Sponsoring Research Projects and Sponsoring Students Projects etc.
CTL Infocom Pvt. Ltd. Mumbai	MOU	06-12-2014	Sponsoring Research Projects, Sponsoring Students Projects and guest lectures etc.
Mastek Ltd. Mumbai	MOU	23-01-2015	Conducting Seminars, workshops, Internship to students/faculty, campus placements, training to faculty on advanced topics etc.
Eduvance Vanmat Technologies Pvt. Ltd., Mumbai	MOU	10-02-2015	Embedded System On Chip Lab setup, faculty development workshop, knowledge sharing on latest technologies etc.
KJSIEIT & KIAAR, Mumbai & Karnataka.	MOU	03-03-2016	KIAAR & KJSIEIT provides R & D project & Research Project undertaken by faculties of KJSIEIT for their PhD degree
Ediffy Communication Pvt. Ltd.	MOU	28-07-2016	To provide communication software services for the use of institute to communicate with students, services are T & P Cell, Intra-department communication, Admission procedure, Festivals and Alumni Networks.

Teach To Lead, Vikhroli, Mumbai	MOU	25-07-2016	Teach To Lead (TTL), better known as Teach for India (TFI) is a non-profit organisation which is part of the Teach for all global movement.
Ecstasy Educational Holiday Planner Pvt. Ltd. (EEHP)	MOU	30-08-2016	Promotion of indigenous technology and making students understand the current technology and scenario in industry
ACEVIN Solutions, Jogeshwari (E) Mumbai	MOU	13-12-2016	Guest Lectures, Student Placement, Projects Development, Faculty and Students Training Programs, Internship to students etc
Current Technology (C-Tech)	MOU	19-12-2016	Guest Lectures, Student Placement, Projects Development, Faculty and Students Training Programs, Internship to students etc

The Institute has also collaborated with following agencies without any formal MoU for various purposes as shown in Table 3.35

Table 3.35 Collaborations without formal MoUs

Sr. No.	Agency	Benefits
1.	eYantra IIT-B	Development and guidance for robotic projects and lab set up
2.	The IET, India	Financial and knowledge-based support to organise workshops, seminars etc.
3.	ARM University	Lab set up and development
4.	K. J. Somaiya Hospital	Development of research projects
5.	Aditya Jyot Hospital	Development of research projects
6.	Central Railways	Internship to students
7.	INUP, IIT-B	Development of research projects
8.	IP Academy	Guidance to file patents

3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

We have signed MoUs with many industries and organisations for the development of R & D activities. Refer Table in 3.34 & 3.35 for the details of MoUs and collaborations.

The major outcomes of these MoUs are:

1. Establishment of lab facilities with industry-specific hardware and software resources for carrying out research work.
2. Joint proposal submission to funding agencies.
3. Internships to students for carrying out project work.
4. Product development and commercialization of developed project works.

5. Staff and student development programs.
6. Bridging the gap between academia and industry.

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment/creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/library/ new technology /placement services etc.

The industry-institution interaction has contributed positively by equipping the students and faculty with exposure to new technology, hands-on training, internships, placement guidance and a thirst for knowledge. Refer table 3.34 for industry-institution interaction.

- T & P Guest Lectures by Industry person:
Training and Placement committee of our Institute invites industry persons and consultants for guiding and motivating students.
- Various students have availed of Internship opportunities extended by industries. Following Table 3.36 shows the details of Internships.

Table 3.36 Details of Internship with Industries

Sr.No.	Company Name	No. of students	Duration of Internship
1	ACEVIN Solutions	8	2 weeks
2	Teach to Lead	5	9 Months
3	HPCL	1	1 month
4	Fragum.Com	1	3 months
5	ARK Techno solutions	31	9 days
6	CDAC	30	25 days
7	Central Railway Workshop Matunga Mumbai	1	25 days
8	Indian Railways	6	10 days
9	Central Railways	4	1 month
10	BARC Mumbai	1	25 days
11	L&T Mumbai	1	1 month
12	Railway Internship Signal & Telecom Department,Byculla,Mumbai	3	10 days
13	RS Industrial Heating System	1	19 days
14	Xoriant Solutions,Powai	1	1 month
15	Gilbarco Veeder-Root India Pvt. Ltd	4	2 months
16	Godrej Infotech	1	1 month
17	Grow Fitter	1	7 months
18	Borehole Seismic	3	2 months

- Industry-Institution interactions resulting in new facilities for laboratories are as shown in Table 3.37 below.

Table 3.37 List of equipment/ software donated by Industries

Equipment/software	Name of Industry/Institute	Year	The amount in worth Rs.
Development Board, Ultra-Reliable Freedom, CorteX-M0+, 48MHz MCU, OpenSDA Debug Adapter	ACCS	2016	FREE (Rs. 3150/-)
Firebird V Robots(3 Kits)	e-yantra	2016	FREE (Rs 84,000/-)
3 IoT kits	IET	2016	FREE (Rs. 3 lakhs)
Antenna	Data Byte Services & Systems	2015	FREE (Rs. 10,00,000/-)
High-end Computer	Cognito IT	2015	FREE (Rs. 80,000/-)
Arm Cortex M0	From Cypress (cy8ckit-042psoc@ 4 pioneer kit) (04 kits)	2015	FREE (Rs. 2200/-)
Arm Cortex M0	From Freescale FRDM KL25Z (10 Kits)	2015	FREE (5,500/-)
Software	Keil professional software free license 100 users	2014	FREE (Rs. 2.6 Cr)
Arm cortexM3 boards	Arm cortexM3 boards (02 KITS)	2014	FREE (Rs.68,594/-)

3.7.4 *Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organised by the college during the last four years.*

Institute has taken special efforts to invite eminent scientists/ participants to contribute to the various events such as STTPs, FDPs, TDPs, SDPs through various workshops, seminars, guest lectures, expert talks etc. The role of these speakers has been to throw light on the recent trends in industry and research and to motivate our students and faculty for research related progress.

One day National Level Symposium on “Evangelising Internet of Things” was organised by KJSIEIT-IET on 5th October 2015. The institute invited founder members, managing directors, R & D heads of different companies working in IoT domain like Mahindra, TechMedia etc. The details are mentioned in the table below.

The symposium aimed at creating awareness among faculty and students about research opportunities in IoT, interdisciplinary projects, applications and challenges of IoT in real time problems. The details are as shown in Table 3.38 below:

Table 3.38 List of eminent speakers for National Level Symposium

Date	Speaker	Designation	Event
05/10/2015	Mr. Joy Rajan Cheruvathoor	Sr. V. P. Business Services, Vodafone, Mumbai	National Level Symposium on Evangelizing IOT
	Mr. Ashish Bedekar	Head IOT Labs, Mumbai	
	Mr. Amish Shah	MediaTeck Principal Architect, Mumbai	
	Mr. Anuj Ashokan	M2M Technologies, Mumbai	
	Mr. Vinit Vijay Raghavan	Founder, Solarian Foundation, Mumbai	
	Mr. Shekhar Sanyal	Country Head IET, Mumbai	

One day State level NPTEL awareness workshop was organised on 8th January 2016. The workshop gave insight into video lectures and certification courses offered by NPTEL. It motivated the students and faculty members to enrol for the courses and certification examination. Based on the overwhelming response, the institute was declared as Active Local Chapter by NPTEL in the academic year 2015-16. Institute awarded as “AA” grade for its performance in the academic year 2016-17. The details are shown in Table 3.39 below:

Table 3.39 List of eminent speakers for NPTEL awareness program

Date	Speaker	Designation	Event
08/01/ 2016	Dr. R.V.Shegaonkar	Director IIT-Delhi	NPTEL Awareness session
	Dr. Ananth	Professor, IIT-Delhi	
	Dr Prathap Haridoss	NPTEL Coordinator, IIT-Madras	
	Mrs Deepa Venkatraman	IIT-Madras	

3.7.5 *How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated-*

- a) Curriculum Development/ Enrichment
- b) Internship/ On-the-job training
- c) Summer Placements
- d) Faculty exchange and professional development
- e) Research
- f) Consultancy
- g) Extension
- h) Publication\
- i) Student Placement
- j) Twinning programmes

- k) Introduction of new courses**
- l) Student exchange**
- m) Any other**

The linkages established with institutions and industries by the departments have contributed to the enhancement of the academic experience of the faculty and the students. Total 15 MoUs are signed which are mentioned in Table no.3.34. Following are the benefits of signing different MoUs:

- **Curriculum Development/ Enrichment:**
 - Guidance to finalise project ideas from GB, LMC, DAB and RAC members and other experts from industry
 - To set up the infrastructure required to give the practical orientation of subjects in the curriculum.
- **Internship/ On-the-job training:**

Various students have availed of Internship opportunities extended by industries like

 - Gilbarco Veeder-Root Industries Pvt. Ltd. Mumbai
 - RS Industrial Heating System
 - Acewin Solutions
 - Teach to Lead
- **Professional Development:**

Faculty members have contributed in providing solutions to industry requirements. SDC members are involved in Application development for GBL, KIAAR.
- **Research:**

Research ideas are explored and solutions are developed for problems defined by K J Somaiya Institute of Applied Agricultural Research, Sameerwadi, Karnataka (KIAAR), Data Bytes Services and Systems and many other companies with which we have signed MOUs.
- **Consultancy:**

Consultancy projects are developed for GBL, KIAAR, KJSCS, GVAIET.
- **The introduction of new courses:**

NPTEL Online Certification courses which are collaborated with IIT-B.

3.7.6 *The detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations. Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.*

An Institute Industry Interaction Cell, Research and Development Cell and NSS are constituted by the Institute to ensure the smooth progress of research, consultancy and extension activities.

IIC is formed to integrate our efforts to bridge the industry-institute gap. The objectives of IIC are given below:

- To offer research, development and consultancy services to solve industrial problems
- To develop good work culture in students, arrange industrial training for students

and faculty

- To identify students project work in industries
- To develop research projects with industry experts
- To organise guest lectures, seminars by experts from industry at regular intervals to update the student's knowledge
- To promote entrepreneurship in technical education
- To arrange technical festivals and students design competitions

R & D Cell was formed to channelize and regularise research activities of the Institute. The objectives of the cell are:

- To facilitate and encourage students and faculty members to come up with innovative techniques using basic concepts of Science and Technology which will help to address societal needs in cost effective and efficient manner.
- To address problems across different verticals like agriculture, healthcare, finance, education and make the research work marketable.
- To raise funds to support and materialise innovative ideas of students and faculty members by collaborating with different research organisations and government agencies.
- To facilitate researchers to get Intellectual property Rights on their work.
- To create common research facility and incubation centre.

Besides these, Institute has taken following efforts and initiatives for the positive growth of the Institute.

- The Institute has several collaborations with organisations and institutes of national and international repute for its holistic growth.
- Students get placed with industry through collaborative work.
- Institute has a T&P Cell that takes care of placement of students.
- Students will be encouraged to take up study projects in consultation with industries and research institutions.
- Faculties are sponsored regularly to attend important workshops and seminars arranged by leading research organisations.
- The institute is in process of establishing IPR cell to promote working on innovative ideas and filing patents.
- The institute is also working on formulating IoT Lab, and incubation centre to facilitate research projects in these domains.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

Institute policy regarding infrastructure is driven by visualisation of future requirements of students, teachers and administrative staff. At present, the focus of the Institute is to create a physical infrastructure which is contemporary and at the same time, meets the norms laid down by the regulating authorities like AICTE and UoM.

The Institute campus is spread over 5 acres of land. The physical infrastructure includes well-equipped classrooms designed for regular chalk and talk as well as multimedia teaching. Laboratories are equipped with latest equipment and library is stocked with the latest books, journals and access to e-learning/ digital resources. The Institute also has a well-furnished and air-conditioned auditorium having a seating capacity of 400. It is used to conduct guest lectures, seminars/conferences and symposia as well as facilitates conduction of technical festivals (Renaissance), and annual cultural festival (Surge). A sports complex facilitated with outdoor table tennis, outdoor chess, tennis court, basketball court, AstroTurf football, skating, cycling and football ground, enables conduction of annual sports festival (Score) and other sporting events. There is an open gymnasium which aids in the development of physical fitness and is a stress buster after long hours spent in the classroom. The Infrastructural support is instrumental in fostering creativity, innovation and capabilities for self-directed lifelong learning in students.

The policy of the Institution for creation and enhancement of infrastructure is as follows:

- To meet the need of upgrading/ creating infrastructure that would support quality education and promote a good teaching-learning environment.
- Allocate funds for infrastructure development.
- Optimum utilisation of resources to carry out curricular, co-curricular, extra-curricular and research activities.

An estate committee is constituted to discuss and take decisions regarding infrastructure development and renovation in the institute. The committee includes the head of the institute, two senior professors from the institute, members of the trust project office (chief engineer, civil engineer and architect) and a management representative. The committee meets as per need to review and place proposals regarding the infrastructure requirements.

4.1.2 Detail the facilities available for

- a) Curricular and co-curricular activities –classrooms, technology-enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialised facilities and equipment for teaching, learning and research etc.***

In accordance with the Institute policy, we have well-equipped laboratories, classrooms, seminar/tutorial rooms and gardens. The details are given in Table 4.1a.

Table 4.1a: Institute Facilities

Sr. No.	Type of Facility	No.	Description of the facilities
1	Technology enabled learning spaces	09	Well ventilated classrooms with- <ol style="list-style-type: none"> 1. Multimedia projector, computer/ laptop with internet connectivity 2. For better visibility, most of the classrooms are tiered seating arrangement
		05	Classrooms with <i>Offee (Hyper Local Content Distribution Platform)</i> in addition to the above facilities
		02	Classrooms with smart and interactive boards in addition to everything mentioned in sr.no 1 row 1
2	Seminar Hall	02	Seminar hall with multimedia projector, computer/ laptop with internet connectivity
		01	The Institute has fully air-conditioned auditorium having seating capacity of around 400 with- <ol style="list-style-type: none"> 1. Multimedia projector, computer/ laptop with internet connectivity 2. Audio system 3. Tiered seating arrangement 4. Cushioned chairs
3	Tutorial spaces	02	Tutorial rooms with- <ol style="list-style-type: none"> 1. Multimedia projector, computer/ laptop with internet connectivity 2. Whiteboard
4	Laboratories	21	Laboratories with- <ol style="list-style-type: none"> 1. Adequate number of PCs on LAN with Internet connectivity 2. Adequate number of equipment/instruments 3. Multimedia Projector 4. Green board /Whiteboard
5	Computer Laboratories	22	Laboratories with- <ol style="list-style-type: none"> 1. Adequate number of PCs on LAN with Internet connectivity 2. Multimedia Projector 3. Air Conditioning 4. CCTV cameras 5. Printer 6. Whiteboard
6	Computer centre	01	The computer centre is used as a common computing facility. Other physical facilities are - <ol style="list-style-type: none"> 1. Adequate number of PCs on LAN with Internet connectivity 2. Multimedia projector, computer/ laptop with internet connectivity 3. Air Conditioning 4. Whiteboard
7	Server Room	01	Air Conditioned Server Room is provided for three important functioning server namely- <ol style="list-style-type: none"> 1. Antivirus server 2. Active directory server 3. Library and admission server and CCTV monitoring system

8	Drawing Hall	01	Drawing Hall with- 1. An adequate number of Drawing tables, Drawing Boards and other furniture. 2. Multimedia Projector, Computer/ laptop 3. Green Board
9	Workshop	01	Workshop with appropriate machines, tools and fixture for fitting, carpentry, welding and plumbing work
10	Botanical garden	Yes	Our Institute is situated in Ayurvihar complex which has a 3-acre botanical garden “ <i>Vanaspatyam</i> ”.
11	Animal house	NA	NA
12	Specialised facilities and equipment for teaching, learning and research	Yes	Language laboratory for developing communication skills Repertoire of The National Programme on Technology Enhanced Learning (NPTEL) videos E-library Google Apps For Education (GAFE) membership Offee (Hyper Local Content Distribution Platform) <ul style="list-style-type: none"> • Parabolic antenna • Weather monitoring station • Various Development Boards/Workbenches • 32 channel Logic Analyser and pattern generator • In circuit emulator • NI Elvis Hardware and Rotary Inverted Pendulum • 250KVA Diesel Generator for Power backup
13	Internet and Wi-Fi facility	Yes	The Institute canteen and library area are Wi-Fi enabled, Password and User-id have been given to all students and staff to avail this facility. All the PCs (except one which is available at examination cell) in the Institute are on the LAN and has Internet connectivity having 56 Mbps bandwidth.

b) Extra-curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc. –

Extra-curricular and co-curricular activities help students to develop their personality and soft skills essential for professional life. These activities offer students the opportunity to spend time with others of similar interests. Sports most often have the effect of fostering strong team-building skills and training students in possessing long-term goals. Institute emphasises extra-curricular and co-curricular activities that can arm students with many of the skills which future employers will be looking for. It is listed in Table 4.1b.

Table 4.1b: Extra-Curricular Activities

Sr. No.	Type of Facility	Yes/ No	Description of the facilities
1	Outdoor Games	Yes	The Institute has several facilities for outdoor games like box cricket, football, volleyball, lawn tennis, Astroturf football, cycling, skating, outdoor table tennis and outdoor chess.

2	Indoor games	Yes	The gymkhana room is equipped with table tennis, carom and chess.
3	Gymnasium	Yes	Open gymnasium
4	Auditorium	Yes	The Institute has fully air-conditioned auditorium having seating capacity of around 400 with- 1. Multimedia projector, computer/ laptop with internet connectivity 2. Audio System 3. Tiered seating arrangement 4. Cushioned chairs It is used to carry out co- curricular and extra-curricular activities.
5	NSS	Yes	Institute started NSS from the academic year 2015-16. NSS committee comprises coordinator and staff members from various departments. There are 50 students associated with NSS unit.
6	NCC	No	--
7	Cultural Activity	Yes	The committee comprising of the coordinator and staff members from various sections along with the student council organises and conducts various cultural events throughout the year. For this following infrastructure, facility is provided by the Institute <ul style="list-style-type: none"> • Ground • Auditorium • Classroom • Discussion Room
8	Public speaking, Communication skills development	Yes	The auditorium is used for an expert talk on personality development and language laboratory with O'rell software & audio-visual facility is used for soft skills development.
Yoga, health and hygiene etc.			
9	Yoga	Yes	Workshops for yoga and aerobics under the guidance of experts are conducted.
10	Health	Yes	First aid kit is available in every department and with institute office. For major treatment full- fledged Somaiya hospital is located nearby the institute. Yearly free medical check-up, bone density and cardiac evaluation for staff are carried out. Psychologist visits the Institute twice a week for counselling students and staff. Health awareness campaigns are conducted for students as well.
11	Hygiene	Yes	The Institute ensures cleanliness in the Institute on the stringent basis. 1. The Institute has outsourced the housekeeping staff for maintaining a high standard of cleanliness in the Institute. 2. Water filters with cooler are available at strategic locations which are accessible easily from anywhere in the building.

			<ol style="list-style-type: none"> 3. Canteen committee monitors the functioning of canteen regularly. Canteen Audit is conducted periodically 4. AMC for Air Conditioner. 5. AMC for water filter ensures 100% uptime. 6. Vending machine and incinerator for sanitary napkins in a ladies toilet. 7. Pest Control measures twice a year. 8. Dustbins on every floor and in every room. 9. Vermicular composting for canteen and garden waste.
--	--	--	--

4.1.3 *How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilised? Give specific examples of the facilities developed/augmented and the amount spent during the last four years. (Enclose the Master plan of Institution/campus and indicate the existing physical infrastructure and the future plan expansions if any)*

Institute has an adequate number of classrooms hence only minimal sharing between departments is required. There are also an adequate number of laboratories for every department barring occasional sharing of specialised equipment.

To ensure that the available infrastructure of the Institute is in line with its academic growth, every year budgetary provisions are made for the renovation of facilities. HOD’s propose the required additions or renovations of their departments. This is approved by estate committee and budget allocations are made accordingly.

The facilities developed during last four years are:

The last four years has seen major relocation, renovation and modification of administrative offices, library, examination cell, HOD rooms, workshop and air-conditioning of the auditorium. Reorganisation of space was done to create faculty rooms and cabins for in-charges, office for IQAC, discussion room, and medical counselling room. Provision has been made to accommodate various bodies like e-Yantra, Cyber Security and Research Cell, IoT cell, IPR cell, Robotics Cell, Software Development Cell in a new extension building of approximately 1700sq.mts. This also helped us to meet the space requirements as per AICTE norms. A new butterfly garden and ring well has been added.

The major infrastructure developments are listed below.

- **Computerization of the campus**

1. Computerization of the campus through use of biometric attendance system for staff, HR software system, attendance monitoring system, feedback system, admission software, RFID in library
2. Wi-Fi facility and strengthening of Internet bandwidth
3. Group SMS facility
4. Use of Google App for education
5. LED TV display
6. Automated control of lights and fans.
7. Motion sensors on staircases and washrooms
8. Public address system

- **Green campus**
 1. Butterfly garden
 2. Ring well facility
 3. Vermicular composting unit for canteen and garden waste.
- **Safety measures**
 1. CCTV surveillance
 2. Motion sensors on staircases and washrooms
- **Sports and physical fitness**
 1. Football
 2. Volleyball
 3. Lawn tennis
 4. AstroTurf football
 5. Cycling and Skating
 6. Open Gymnasium
 7. Open table tennis and Chess

The amount spent during the last four years is shown in Table 4.2

Table 4.2: Budget Utilization for Infrastructure Development

Sr. No.	Facility developed/ Augmented	Amount (in Lakhs)			
		2013-14	2014-15	2015-16	2016-17 (budgeted)
1	Digitization/Computerization of campus	24.09	10.69	24.21	42.5
2	Furniture	16.01	2.95	Nil	10.74
3	Equipment	34.94	41.53	30.56	24.06
4	Safety measures	6.98	5.38	6.8	2.81
5	Future extension plan	Nil	19.93	Nil	575
6	Playground and Green campus	5.95	68.64	27.02	4

**Occupancy Certificate, Master plan of the institute and floor-wise layout details are included in Annexure 6*

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

The Institute ensures that physically disabled students are provided necessary help. They are given special care by the staff. The institution supports the active academic participation of physically disabled students by providing necessary facilities such as ramp, elevator, grab bars in lifts and toilets. The elevators are large enough to accommodate wheelchairs.

4.1.5 Give details on the residential facility and various provisions available within them: (hostel, recreation, Computer, medical, library, Internet and Wi-Fi)

Most of our students are from Mumbai and the transport facility in Mumbai is

excellent. Most of them are day-scholars as a result. The hostel facility for outstation students is provided by Somaiya Trust at Vidyavihar and Ayurvihar campuses. There are two hostels which can accommodate 408 girls and 524 boys between them. A third hostel is under construction.

Hostel rooms are well equipped and have the internet facility. For hostel students, recreational avenues like gymnasium, jogging track and other common facilities and conveniences like laundry are available.

For visitors, 26 guest rooms are available at the same venue. Guest rooms are well-equipped with the amenities like intercom, the internet, television, air-conditioner etc.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

The provisions made available to students and staff in terms of health care are-

- A psychologist visits the Institute twice a week for counselling sessions.
- For medical emergencies, a medical college and hospital belonging to the trust are available in near vicinity.
- Institute provides group Medclaim, group insurance and accidental policy to teaching and non-teaching staff.
- For students, Institute has implemented *Amartya Shiksha Yojana* policy and also provides group insurance policy.
- Institute provides specialised care and treatments to its employees like basic free medical check-up camp, cardiac camp and diabetes check-up etc. at the Somaiya hospital belonging to the same trust. The Institute provides medical treatment at a concessional rate in Somaiya hospital for students, faculty and their family members.
- For the students, free eye check-up camp, sessions of physiotherapy at concessional charges and special discount on the total billing is available at the Somaiya hospital.
- First-Aid boxes are available in the Institute within every department.

4.1.7 Give details of the Common Facilities available on the campus—spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

The details of the common facilities available on the campus are shown in Table 4.3

Table 4.3: Common Facilities Available on the Campus

Special Unit	Dedicated space available?
IQAC	Yes. A dedicated room to hold meetings
Grievance Redressal Unit	No. Meetings are held in Library or Principal’s cabin or board room
College Women Development Cell (CWDC)	Yes. A dedicated room to hold meetings
Placement Unit and Career Guidance	Yes. TPO cabin and a discussion room

Counselling	Yes. A cabin where students can meet the counsellor
Health Centre	Medical college and hospital belonging to the trust is available in vicinity
Canteen	Yes
Recreational Spaces	Football ground, AstroTurf football, open gymnasium, open table tennis, open chess, tennis court, cycling track, boy's and girl's common room for indoor games.
Safe Drinking Water Facility	Yes. Water filters and coolers at strategic locations.
Auditorium	Fully air conditioned with a seating capacity of 400 persons.

4.2. Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What have significant initiatives been implemented by the committee to render the library, student/user-friendly?

Yes. Since 2007, Library committee is active. The present committee is listed in Table 4.4

Table 4.4: Library Advisory Committee

Sr. No.	Name	Designation
1	Dr.Suresh Ukarande	Chairman
2	Dr.Sunita Patil	Advisor
3	Dr.Pratibha Gokhale	External Advisor
4	Mrs.Gauri Gothivrekhar	Librarian, Convener
5	Mr.Shreyas Vaidya	Student Representative
6	Prof. Jignasha Dalal	Member
7	Prof. Sandhya Deshpande	Member
8	Prof. Shaheen Pathan	Member
9	Prof. Reena Lokare	Member
10	Prof. Prashant Upadhyay	Member
11	Mrs.Jyoti Tikam	Member

The library has implemented the following policies and practices according to the advice of the members from time to time.

- Students are allowed to borrow up to 6 books for a period of one month.

- The library catalogue is available online on the link <http://114.143.198.3/opac/>.
- Online book reservation and online book renewal facility are given. Students can renew the book from home provided it is not reserved by any other student.
- More than 500 online journals (viz. IET, IEEE, Springer, ACM, ASME, Science direct digital library). There is a Google App for e-journal access and stakeholders can take benefit of this facility from anywhere in/out of the campus at any time. There is no limit for concurrent users.
- The library has eleven computers with Internet facility. There is a dedicated computer for NPTEL lecture series having 8TB hard disc. Wi-Fi connection is provided in the library for uninterrupted internet connection to every reader in the library.
- The library implements the free book bank facility for SC/ST students funded by social welfare department, Government of Maharashtra and UoM. There is also a book bank facility for all regular students and alumni at a nominal cost to fulfil their academic needs.
- IET UK physical book borrowing facility is available to all IET members Library also has external memberships such as IIT Bombay library Membership, DELNET membership, IETE life membership. Global Common Circulation (GCC) model enables every student to borrow books from the library of any of 34 Somaiya institutions.
- The library has taken keen initiatives in arranging book exhibitions spreading the awareness amongst the reader community. Book exhibitions comprise of new books as well as less read collection of our own library collection.
- Open access facility is available. Library staff helps students for searching books.
- For the reader's convenience, various e-facilities such as a reminder for due dates, reminders for overdue books, reminders for book renewals and book reservations are e-mailed.
- Students opt to refer the old question papers while preparing for the examination. Old question paper files are maintained and all question papers since December 2012 (CBGS pattern) are scanned and uploaded on institute website.
- To enhance the usage of library resources and make the readers familiar with library facilities, Library orientation program for all students is done every year. Current contents of latest arrived print journals and list of latest arrivals in the library are periodically e-mailed to all readers on Somaiya e-mailing list for ready reference.
- In addition to the central library, each department has its own departmental library for the faculty and students.

4.2.2 Provide details of the following :

- *The total area of the library (in Sq. Mts.)*
- *Total seating capacity*
- *Working hours (on working days, on holidays, before examination days, during examination days, during vacation)*
- *Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)*

The Library details are mentioned in Table 4.5

Table 4.5: Library Details

Particulars	Details
Total area of the library	410sq.mts.
Total seating capacity	90
Working hours	
On all working days	8.30 a.m. – 7.00 p.m.
During examination days(weekdays)	8.00 a.m. – 7.00 p.m.
During examination days (Holidays)	10.00 a.m. – 5.00 p.m.
Layout of the library	Library has separate reading area, digital library and reference section

Additional reading facility-

- The Somaiya medical college of the same trust which is available in the same campus Institute library reading room is available 24x7 hrs.
- GCC- is a facility that enables students to avail reading room of any of 34 Institutes under the Somaiya Trust.

4.2.3 *How does the library ensure purchase and use of current titles print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.*

Based on the requirements of curriculum and research interests, the faculty recommends books and journals to the library. There is also a provision to accept student recommendations directly. The items for purchase are shortlisted from the consolidated requirements by the library committee. This is done before the start of the semester to meet the new requirements. Book exhibitions are also held every year to involve everyone in the process and to simplify the acquisition of new books.

The Library purchase record is listed below in Table 4.6

Table 4.6: Library Purchase Record

Library holdings	2013-14		2014-15		2015-16		2016-17	
	Number	Total Cost (in Lakhs)	Number	Total Cost (in Lakhs)	Number	Total Cost (in Lakhs)	Number	Total Cost (in Lakhs)
Text books	711	2.97	591	2.63	678	3.16	202	0.99
Reference Books	111	0.5	99	0.4	90	0.43	7	0.032
General books	253	0.43	84	0.14	19	0.018	54	0.089
College book bank scheme			148	0.62	477	2.10	114	0.51
Journals/ Periodicals	34	0.17	27	0.22	27	0.33	36	0.63
e-resources	284	8.27	300	11.21	455	3.46	500	3.71

External Library membership	-	-	-	-	IIT Library	0.31	IIT Library	0.31
	-	-	-	-	IETE life membership	0.5	IETE life membership	-
	-	-	-	-	DELNET membership	0.16	DELNET membership	0.16
	-	-	IET digital library	3.00	Three Year subscription			

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library Collection?

- **Online Public Access Catalogue (OPAC)-**
 Our library has OPAC catalogue. It also includes data about all libraries in Somaiya Campus of total 34 Institutes libraries. The link for the same is <http://114.143.198.3/opac/>. This same site can be used for book preservation and renewal.
- **Electronic Resource Management package for e-journals and federated searching tools to search articles in multiple databases:**
 In the recent past, we have implemented EBSCO Discovery package with open Athens, thereby eliminating the need of multiple logins to the different databases we have subscribed to. A Google application is available for everyone in the Somaiya group to access not just the catalogue of books, but also the databases. We have a subscription to as well as the open access resources. <https://library.somaiya.edu/home>. Every person, employee/ student can log in with their Somaiya ID from anywhere, to check the catalogue or download/print publications. This has proved to be a really convenient application, especially for faculty pursuing research. Figure 4.1 shows screenshot of EBSCO discovery service.
- **Library Website and in-house/ remote access to e- publications**
 All the information pertaining to library viz. resources, facilities, rules, events are available under library page which is a submenu of the Institute website. The link of the same is <https://www.somaiya.edu/kjsieit/academics/Library>. There is also a Google library app available for remote access of e-journals to every member of the Somaiya community
- **Library Automation-** The library is automated with the in-house software BOOKWORM and using barcodes.
- **Total Number of Computers for Public Access-** The Internet section comprises 11 computers available only for students. One PC is dedicated for NPTEL usage and One PC for OPAC.
- **Total Numbers of Printers for Public Access – 3**

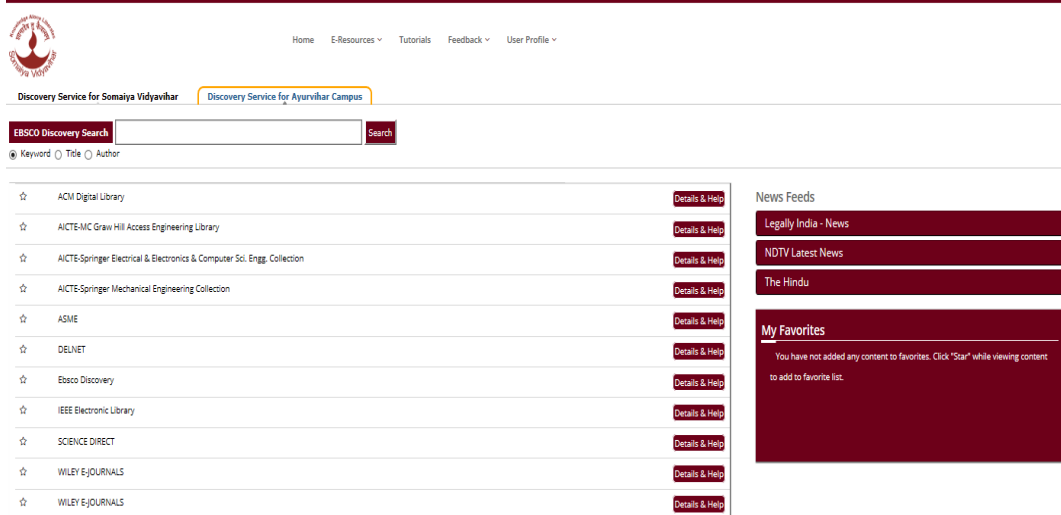


Figure 4.1: EBSCO Discovery Service

- **Internet Bandwith-** 56mbps. Separate additional line for Library software with bandwidth of 2mbps.
- **Institutional Repository-** Old Question papers, a list of student’s projects developed in previous years are uploaded on Library page and the soft copy of students’ projects is available with departmental library PC. 8 TB of NPTEL lectures are available in Library.
- **Content Management System For e-learning:** We have subscription for Google Apps for Education (GAFE). A few faculty members are using Moodle on a trial basis.
- **Participation in Resource Sharing Networks/Consortia-** DELNET, IET, GCC in Somaiya Vidyavihar Trust Institutes.

4.2.5 Provide details on the following items:

<i>Average number of walk-ins</i>	1270
<i>Average number of books issued/returned</i>	2186
<i>Ratio of library books to students enrolled</i>	18500/1200 = 16:1
<i>Average number of books added during last three years</i>	1120
<i>Average number of login to OPAC</i>	40
<i>Average number of login to e-resources</i>	256
<i>Average number of e-resources downloaded/printed</i>	547
<i>Number of information literacy training organised</i>	20 Separate workshops for students and faculty
<i>Details of “weeding out” of books and other materials</i>	Refer table 4.7

- Total number of Weeding books volumes (Breakup as follows): 1805 (refer Table 4.7)
- Total number of write off titles: 300

Table 4.7: Weeding out Record

Date	Remark	Quantity
04.04.2011	Donated	42
15.06.2011	Disposed off	395
07.10.2013	Disposed off due to termite	2
07.01.2015	Lost books disposed of	1366

4.2.6 Give details of the specialised services provided by the library

Library specialised services are listed below in Table 4.8

Table 4.8: Library Specialized Services

Service	Descriptions
<i>Manuscripts</i>	Nil
<i>Reference</i>	E-journals, IIT Bombay library, GCC Somaiya facility
<i>Reprography</i>	Photocopy machine available
<i>Inter Library Loan Service(ILL)</i>	IET,GCC
<i>Information deployment and notification</i>	E-Alerts about due dates and new arrivals of the library including e-mails and SMS alerts. Online facility to check individual’s library account.
<i>Download</i>	Facility to download E-journals and e-book’ https://library.somaiya.edu/ An App also provided through Somaiya mail itself.
<i>Printing</i>	Students can print academic documents from library
<i>Reading list /Bibliography compilation</i>	On a request made available. Shelf list displayed on every rack.
<i>In-house/remote access to e-resources</i>	All resources accessible through http://library.somaiya.edu/ App available in Somaiya mail itself.
<i>User orientation and awareness</i>	Conducted at regular intervals for all students and staff
<i>Assistance in searching databases</i>	Rack details of books available in online catalogue
<i>INFILBNET/IUC facilities</i>	Nil

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the Institute.

The following support is provided by the library staff to the students and teachers of the Institute-

- The Students are allowed to borrow 6 books for one month each. Students can renew books online provided it is not reserved by some other student.
- College book bank scheme enables the student to keep a complete set of books for a complete term apart from the regularly issued books at minimal charges.

- Reserved category students are eligible to keep a complete set of books for a complete term free of charge.
- Orientation for any new facilities introduced by the library and for using the library resources more effectively is delivered time to time to all staff and students.
- Old technical journals are bound and catalogued for future use. This section proved helpful for project work.
- Faculty and students are made aware of new arrivals and content pages of print journals through e-mail.
- Question papers available in print form as well as uploaded on Institute website under library section.
- List of student's projects developed in previous years is uploaded on library page for reference purpose of upcoming batches.
- Revised as well as old syllabi copies since 2001 are available in the print format.
- Alumni library membership which facilitates alumni of KJSIEIT to borrow two books for one month. Minimal deposit is taken for availing this facility.
- GATE Practice software: This software comprises of sessions for GATE examination and aptitude preparation. The student immediately gets the score for the examination.
- Book Exhibition: Every year library arranges for book exhibition through publishers or their representatives on occasions like Marathi Bhasha Gaurav Din and APJ Abdul Kalam birth anniversary.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

The library is accessible by lift and the doors are wide enough for the entry of wheelchairs. The differently able students are attended to on a priority basis and they receive help from library attendants. The EBSCO discovery service is available to students for downloading research papers. Using the OPAC service they are able to do online reservations and renewal of books.

The classmates/guardian of physically handicapped students is allowed to issue books on their behalf.

4.2.9 Does the library get the feedback from its users? If yes, how is it analysed and used for improving the library services? (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)

Library gets its feedback from students and faculty on e-mail and personal communications. The library committee analyses feedback and recommend steps for improvement. Extending library timings, book bank scheme, increase in collection of books on general reading and competitive examinations etc. are a result of the feedback.

4.3. IT Infrastructure

4.3.1 Give details on the computing facility available (Hardware and Software) at the institution.

Computing facility details are mentioned in Table no. 4.9a, 4.9b and 4.9c.

Table 4.9a: Computing Facility

<i>Number of systems</i>	667 . Different configurations ranging from 2GB-4GB RAM and Intel Pentium Duo to Core 3i processors are available. All computers are stand alone with 300GB- 500GB hard disk. All computers are on LAN
<i>Computer-student ratio</i>	1:2
<i>Standalone facility</i>	Yes
<i>LAN facility</i>	All computers except one in examination section are on the LAN
<i>Wi-Fi facility</i>	Wi-Fi facility is available in the Library and Canteen.
<i>Licensed software</i>	Yes. (Refer table 4.9b)
<i>Number of nodes/ computers with Internet facility</i>	All nodes
<i>Any other</i>	3 servers, 78 printers, 6 scanners, 43 LCD Multimedia projectors, 57 Network switches, 2 smart interactive boards, routers, 5 Office content management tool.

Table 4.9b: List of Licensed Software

Sr. No.	Institute/ Dept.	Name of Software	Date of Purchase	Qty	Amount (Rs.)
1	COMP	Turbo C++ Version 4.5 with one full pack	08/11/2001	1	3900
2	COMP	MS Office2000	08/11/2001	1	11750
3	BS & H	Auto Cad 2002 Full Pack AE with Media 1 User License	22/04/2002	1	37500
4	BS & H	Auto Desk Inventor Series for single NW Auto Cad 2002	21/01/2003	1	230781
5	COMP	Turbo C++ Suite 1 Media & rest paper License	14/02/2003	39	78000
6	EXTC	TINA PRO Educational Version Software	14/02/2003	1	17000
7	EXTC	TINA PRO Student Version Software	14/02/2003	2	12000
8	COMP	MS SQL 2000 Server with 22 CAL LIC AE	14/02/2003	1	45000
9	COMP	MS Visual Studio.Net Prof. 2002 MOLP NL AE with Media kit	04/08/2003	22	64900
10	COMP	Turbo Assembler 5.0 AE (TASM)	04/08/2003	1	4250
11	COMP	Oracle 9i Database Server STD Edition	04/08/2003	22	237600
12	COMP	MATLAB	22/07/2003	10	387268
13	IT/COMP/ EXTC	Turbo Assembler 5.0 AE (TASM)	31/03/2005	67	127300
14	IT/COMP/ EXTC	MS Office 2003 Prof with one media	31/03/2005	30	72900
15	IT	MS Visual Studio.Net Prof. 2003 with Media kit	31/03/2005	22	55950
16	COMP	Visual Prolog Version 6.2 with one full pack	31/03/2005	23	103500
17	IT/COMP/ EXTC	Turbo C++ Suite AE	24/03/2005	115	176575

18	COMP	Oracle 9i Std (5 Users) with Media kit	31/03/2005	5	130000
19	EXTC/ ETRX	Matlab - Lic No. 252948	24/05/2005	10	532538
		Signal Processing		10	
		Image processing		10	
		communications		5	
20	EXTC	Multisim Education version 9. 5 station node - locked	02/05/2006	1	143550
21	EXTC	Commsim Education Version 7 5 station Node - locked	02/05/2006	1	183150
22	COMP	MSDN Library 2005 win32 English 1 YR CD	14/07/2006	44	337935
23	COMP	MSDN Academic Alliance	01/03/2006	1	45000
24	COMP/IT	Rational Suite Enterprise Studio	31/03/2006	30	600000
25	ETRX	Tina Pro (5 users)	14/07/2006	1	79560
26	ETRX	VHDL Simulation facility (5 users)	14/07/2006	1	42120
27	EXTC /ETRX	Matlab lic No. 331693 (IndiaSoft)	28/11/2006	10	362467
		Control System		5	
		Computer Vision System		5	
		Statistics		10	
28	EXTC/ETRX	Sc51 'C' Compiler for 8051 including IDE, Simulator and VCG	22/04/2006	1	23660
29	BSH	Autodesk Product Auto Cad 2008	05/01/2008	20 Users	274300
30	ETRX	Scientech - LAN (Netsys) Simulations Software Simtel (10 users)	03/01/2009	1	276120
31	ETRX	Mentor Graphics HEP Category 1-IC Design/Custom IC Design	04/06/2009	1	400000
32	BSH	Linguaphone L21 with Eyespeak	02/07/2009	5	38950
33	EXTC/ ETRX	MATLAB - LIC No. 607136	05/10/2009	30	699927
		Simulink		5	
		fuzzy logic		10	
		Image processing		30	
		Neural Network		10	
34	EXTC/ ETRX	Proteus Virtual System Modeling Software	23/10/2009	10 Users	265200
35	ETRX	NI Lab VIEW CORE Software (50 users) Batch : M73x94489	30/03/2010	1	444600

36	EXTC	MATLAB Software Upgrade (Lic.- 252948) Lic. Type – Concurrent Lic. Key - Perpetual	22/03/2010	10 Users	333425
		MATLAB Software Upgrade (Lic.- 331693) Lic. Type – Concurrent Lic. Key - Perpetual		10 Users	115277
		MATLAB Wavelet Toolbox (Latest Version)		05 Users	46006
37	IT	Oracle 11g Standard Edition One - Named User Plus Perpetual Licenses	14/06/2010	20	309458
38	EXTC/ ETRX	ED Win XP version 1.71	07/08/2010	20 Users	780938
39	ETRX	MICROWIND package	08/04/2011	10 Users	580388
40	EXTC	ED Win XP version 1.90	19/05/2011	1	630000
41	EXTC	MATLAB (ADCC)	18/06/2011	30	335081
		Image Processing Toolbox		10	67620
42	EXTC/ ETRX	MATLAB LIC. No. 697192	17/10/2011		1043316
		Upgrade of LIC. No. 607136		30	
		Upgrade of LIC. No. 252948		10	
		Upgrade of LIC. No. 331693		10	
		SIMULINK		10	
		Fuzzy Logic Toolbox		10	
		Image Processing		25	
		Wavelet		5	
		communication system		5	
		DSP System		15	
		Signal Processing		25	
		Control System		5	
Computer Vision System	5				
Statistics	10				
43	KJSIEIT	Mobile Application Device License	12/10/2012	36	170100
44	Library	EBSCO Discovery Services 1 YR Renewal Period: 1st Jan. 2014 - 31st Dec. 2014	02/01/2014		151440
45	ETRX	Crossware ARM development Suite	20/01/2014	10 Users	510693
46	ETRX	Crossware 8051 C Cross Compiler	20/01/2014	10 Users	393041
47	KJSIEIT	Grading based Exam Processing System	04/02/2014	1	114000
48	KJSIEIT	Adobe ETLA professional license	22/07/2014	292	411342

49	BS&H	Orell Digital Language Lab (ODLL) Std. End. 1 Teacher Console & 20 Student Console	20/09/2014	21	102375
50	EXTC/ETRX	MATLAB TAH license & Tool Boxes (For All Staff & students)	06/01/2015	Unlimited	735427
51	Library	EBSCO Discovery Services 1 YR Renewal Period: 1st Jan. 2015 - 31st Dec. 2015	27/01/2015		128889
52	KJSIEIT	Easy pay Web Software - Sensys	18/03/2015	148	13700
53	SDC	Microsoft Visual Studio Pro MSDN ALNG Lic SAPk OLV E 1 Y Acadm AP	26/05/2015	2	6808
54	KJSIEIT Accounts	Tally.Net Subscription - Gold Sr. No.- 771089364 (1/10/2015 - 30/09/2016)	31/08/2015	1	10800
55	T & P	Soft Tech GATE Practice Software	27/10/2015	Unlimited Users	45000
56	Library	EBSCO Discovery Services 1 YR Renewal Period: 1st Jan. 2016 - 31st Dec. 2016	14/01/2016		143046
57	EXTC/ETRX	MATLAB TAH License & Tool Boxes (For All Staff & students)	23/01/2016	1	697033
58	T & P	SoftTech Aptitude Test Practice Software	05/02/2016		78750
59	SDC	Visual Studio Pro wMSDN ALNG Lic SAPK OLV 1Y Acadm AP	09/03/2016	5	18933
60	KJSIEIT	Adobe Creative Cloud Licenses Service Period: 26/09/2016 - 25/09/2017	26/09/2016	5	150206
61	ETRX	Mentor Graphics (25 users for 3 years) HEP- Back End: IC Nanometer Design:	14/10/2016	25	260000
62	EXTC/ETRX	MATLAB TAH License & Tool Boxes (For All Staff and Students)	30/01/2017	Unlimited Users	786500

System Software

Sr. No .	Institute/ Dept.	Software Details	Date of Purchase	Qty	Amount (Rs.)
1	COMP	Microsoft Windows NT Server 4.0 AE (5 users)	12/11/2001	1	19000
2	COMP	Red Hat Linux 7.1	08/11/2002	1	6500
3	COMP	MS Windows 2000 Server with 22 CAL, 1 Media & rest paper license	14/02/2003	22	14000
4	KJSIEIT	MS Windows 2003 Server Std.	31/03/2005	2	9800
5	KJSIEIT	MS Windows 2003 Server CAL	18/03/2005	77	20790
6	KJSIEIT	MS Windows 2003 Server Media Kit	18/03/2005	1	1500
7	COMP	Windows XP Pro English UPG OLP NL AE	14/07/2006	29	902488

8	KJSIEIT	Cyberoam CR 100i Unit (HW & SW)	04/05/2009	1	18116
9	KJSIEIT	Kaspersky Endpoint Security for Business Advanced (Antivirus) Public Sector License for 1 yr	16/08/2014	417	114793
10	KJSIEIT	Microsoft Windows Server 2012 R2 Std. Edn.	30/08/2014	3	40908
11	KJSIEIT	Windows SL 8.1 SNGL OLP NL Academic Legalization Get Genuine	12/12/2014	160	836000
12	BS & H	Microsoft Windows Server 2012 R2 Std. Edn.	24/12/2014	1	13636
13	KJSIEIT	Cyberoam 1000iNGXP Unit (HW & SW)	24/04/2015	1	437561
14	KJSIEIT	Microsoft Windows Server 2012 R2 Std. Edn.	30/05/2015	1	2688
15	KJSIEIT	Microsoft School Campus Agreement	09/03/2016	120	362052
		O 365 Pro Plus Open Faculty ShrdSvr			
		ALNG SubsVL OLV E 1Mth Ac dmc AP (Yearly) WIN EDU ALNG Upgrd SAPk OLV E 1Y Ac dmc Ent			
16	KJSIEIT	Kaspersky Endpoint Security for Business - Advanced (Antivirus) Public Sector License for 1 yr.	10/03/2016	249	58100

Table 4.9c: Annual Maintenance Contracts

Sr. No.	Institute/Dept.	AMC (or Renewal)Details	Date of Purchase	Amount (Rs.)
1	KJSIEIT Exam Cell	CBGS Style Exam Software (AMC : 2015-16)	07/10/2015	17100
2	KJSIEIT	Tally Annual Support Contract ASC for Tally ERP 9 Period: 01/04/2015 - 31/03/2016	31/05/2016	13483
3	KJSIEIT	Cyberoam SVSP - 1000NGXP-R36 (3 years AMC)	14/06/2016	796264

4.3.2 The detail on the computer and the internet facility made available to the faculty and students on the campus and off- campus?

On Campus:

All the computers on the Institute are provided with the internet facility including the computers in the laboratories and in the faculty and staff cabins. Institute has subscribed internet leased line connectivity of 56 Mbps. Library and canteen areas are Wi-Fi enabled. Students and staff can browse the Internet using their mobile phones and laptops. NPTEL videos / web contents (8 TB) are available for viewing on campus.

Off Campus:

- All the students and staff members have provided an e-mail ID in ‘somaiya.edu’ domain
- APPS in GAFE like Google Classroom
- Employee self- service portal
- All the online library services
- MATLAB campus license which can be installed on personal laptops.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT Infrastructure and associated facilities?

Computer systems are upgraded as per the requirements of University Syllabus for each branch. Licensed software is installed as per the requirements. The Institute always tries to upgrade to the latest technology to provide the best education to students. Two interactive / smart classrooms and 5 Office boxes are available in the Institute. All classrooms are equipped with LCD multimedia projector with an internet connection. We have upgraded our internet bandwidth to 56 Mbps and connecting all computers in the institute with LAN. Upgraded IT infrastructure facilitates the use of Somaiya Trust level facilities for all institutions in a group such as GCC, Somaiya e-mail etc. With the help of upgraded software students are participating and winning in reputed project competitions like State level inter-university competition ‘Avishkar’, Mastek Deep Blue, ARM, etc.

4.3.4 Provide details on the provision made in the annual budget for procurement, up gradation, deployment and maintenance of the computers and their accessories in the institution. (Year wise for last 4 years)

The budget allocated for procurement, up gradation, deployment and maintenance of the computers and their accessories during last four years is mentioned in the Table 4.10

Table 4.10: Budget Allocation

	2013-14	2014-15	2015-16	2016-17
Budget Allotted (in Lakhs)	71	33	126	93

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided Teaching/ Learning materials by its staff and students?

Extensive ICT is the need of the hour and to make it possible, our institute provides various facilities such as,

- Institute has subscribed Internet Leased Line Connectivity of 56 Mbps and each computer is connected to the internet.
- Classrooms are equipped with LCD multimedia projectors and are internet enabled.
- We have started using Wi-Fi enabled content sharing tool ‘Office’ for more effective teaching. We have installed Interactive Smart Boards and are in use.
- There is a separate area in Library which provides computer facility to use the internet for accessing the online journals etc. One dedicated computer has NPTEL

videos. Institute had purchased NPTEL video lectures in 2009. From the last year, 2016 Institute has become an active centre for NPTEL and has been awarded “AA grade” by NPTEL for the period July to December 2016.

- Students and staff have facility to improve their language skills using Interactive Language Learning Software, O’reil.
- We are in a phase where we are experimenting with various learning management systems. There is provision to upload lecture notes and assignments on the Institute website. As a member of G-suite for Education, all apps are available to use. Most of us are using Google apps like drive, Gmail, docs, forms, calendar, sheets, slides, and sites. Google classroom is used by the majority of the faculty. PowerPoint slides are uploaded in the classroom. MCQ tests and assignments, course exit and student exit surveys are also conducted through Google classroom. A few faculty members are conducting classes on MOODLE.
- Institute has a public address system and group SMS facility for sending messages.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to online Teaching-Learning resources, independent learning, ICT-enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

The institute realises the need of moving with the times. We employ methodologies which engage the students in the classroom activities. The majority of the faculty uses Google classrooms. Notes and assignments are uploaded in the classroom so that students have access to it at their convenience. Assignments are conducted as MCQ’s by many faculty members. The assessment is done online with the help of tools like Flubaroo. Google classroom also facilitates the flipped classroom model, where short video clips or lecture notes are uploaded in the classroom before the actual lecture and students are expected to come prepared to class to enable a healthy discussion in the classroom. Some other methods which are employed are group presentation and mini-projects which enhance their understanding of the subjects.

Some faculty use virtual labs for teaching or practical. We also have practice software for GATE and other competitive examinations. An interactive language laboratory is available for improving communication skills.

Recently we have purchased ‘Offee’, which enables implementation of teaching methodologies like TPS (think, pair, share) and also is an invaluable tool for analysis of student performance. Smart-Interactive boards are another feature which will enrich the experience of teaching learning. We also have a subscription to various online journals.

Our campus atmosphere is vibrant and students are encouraged to participate in technical, cultural and sports activities. There are many instances where we have emerged victorious in National and International level competitions. Institute sponsors student participation in prestigious events. Care is taken to organise training programmes which enable them to participate in these events.

By all of the above efforts, the Institute has been able to place the student at the centre of the teaching-learning process.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

No, National Knowledge Network connectivity is available only for Government Institutes

4.4. Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilisation of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

Regulatory bodies like AICTE, DTE and UoM require a certain minimum standard for many of the operational aspects. The management complies with and in certain aspects even surpasses these statutory requirements. The annual budget for the Institute campus needs prior approval by the Governing Body. It involves procurement of equipment for each department’s infrastructural development and facilities like developing a garden, playgrounds, gymnasium etc. The infrastructural development in the institute ensures the best quality material and facilities. Following Table 4.11 shows maintenance budget utilised during last four years-

Table 4.11: Maintenance Budget Utilisation

Sr. No.	Name	Maintenance Budget Utilization(in lakhs)			
		2013-14	2014-15	2015-16	2016-17
1	Building	6.80	88.36	62.30	12.00
2	Furniture	1.07	1.66	4.87	1.11
3	Computers	0.55	0.58	1.16	1.35
4	Lift	2.70	0.28	1.38	0.97
5	Water Purifier	0.16	0.07	0.01	0.08
6	Air Conditioner	1.69	0.58	0.57	1.13
7	Cleaning /Repair &Maintenance	11.56	10.46	13.82	12.29
8	Networking	1.15	Nil	4.87	0.35
9	Fire Fighting Equipment	0.20	0.17	0.10	2.80
10	Garden/Ground	0.37	0.36	0.34	0.34
11	Electrical	1.63	0.87	1.02	1.26
12	Water Tank	0.04	0.04	0.08	0.08
13	Biometric Machine	0.04	0.04	0.04	0.04
14	Miscellaneous	0.14	Nil	0.39	0.12

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the Institute?

The institute has a maintenance system for all essential available facilities. The request for maintenance is entered in a register at the Institute level or in the laboratory. At the department level, technical assistants repair the equipment/computers most of the time. For electrical repairs, we have a dedicated person for the job. In the case of giving the order to an external agency, we follow rules of the trust, which includes calling for quotation, purchase orders, negotiations, invoice preparations etc. For major civil works the estate committee, consisting of the Head of the Institute, two senior professors from the institute, members of the trust project office (chief engineer, civil engineer and architect) and a management representative decides the course of action.

Maintenance of different facilities:

- **Cleaning and sweeping:**
An authorised agency has the annual contract of cleaning and sweeping of the passages, classrooms, washrooms, lifts, surroundings etc. The office staff monitors their work and maintenance issues.
- **Garden:**
The cutting, cleaning, watering, soiling etc. activities in the garden are outsourced to an external agency.
- **Electrical maintenance:**
The activities related to maintenance of electrical fittings, public address system, diesel generator (DG), pump room, etc. are supervised and done by Institute's electrician.
- **Lift:**
Institute has an annual maintenance contract with the authorised agency and the crew does the maintenance along with lift room.
- **Water purifier:**
The equipment maintenance is done by the authorised agency with which the institute has an annual maintenance contract.
- **Watercooler:** The Institute has AMC of all the water coolers with Vocational Training Institute, Vidyavihar which is sister concern of the Institute.
- **Air conditioner:**
The Institute has AMC of all the air conditioners with Vocational Training Institute, Vidyavihar which is sister concern of the Institute.
- **Overhead and Underground water tank:**
Institute has an annual maintenance contract with the authorised agency to clean the drinking water tanks.
- **Network system:**
The following facilities are well maintained by assistant network administrators
 - Website updating and maintenance
 - Wi-Fi system
 - Mobile attendance
 - HR Software system

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?

The calibration of selective equipment is undertaken by the departments. The Institute has a team of qualified assistant network administrators for maintaining computers and networking facilities.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, a constant supply of water etc.)?

- The Institute's electrician and the supporting staff are responsible for the upkeep of electrical equipment and their maintenance. There are hardly any voltage fluctuations in the power supply in Mumbai. Institute has an uninterrupted supply of electricity and in the case of power cut, generator power backup facilities are available at the Institute.
- The laboratory support staff is well trained and can repair the most equipment. They maintain and upkeep the equipment in their supervision. Equipment and chemicals are placed at proper and safe places.
- There is an overhead and underground water tank with water pump for constant supply of water. Quarterly cleaning of water tanks is done by the authorised agency. The Institute has an annual maintenance contract with the agency of water purifiers who takes care of repair and maintenance of the system.
- Annual inspection and updating in fire safety are done from the fire brigade department.



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Criterion-V :

Student Support And Progression



CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student mentoring and support

5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes. The Institute publishes its updated prospectus annually on its website, and a printed copy of the same is available to students aspiring for admission. The brochure contains admission details like intake, type of seats, fee structure, document checklist, information about institute infrastructure, departments, facilities provided, the different welfare schemes and scholarships, results, placements, collaboration with industries and student activities and training programmes. It also contains information related to anti-ragging rules and various scholarships on offer.

The Institute is committed to transparency in the admission process and admission is strictly as per rules of the DTE/ (ARA), Government of Maharashtra. Even the institute level admissions are based on merit and are transparent. All relevant important updates regarding admission are notified to all concerned through group e-mail facility or group SMS, notice board and Institute website on a timely basis. This ensures our commitment and accountability.

5.1.2 Specify the type, number and amount of institutional scholarships / Freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

The details of different institute level scholarships are available on our website www.somaiya.edu/scholarships Institute scholarship details are mentioned in Table 5.1

Table 5.1: Institute Scholarships.

Sr. No.	Institute level Scholarship / aid details	Eligibility	No. Of Students availed Scholarship			
			2013-14	2014-15	2015-16	2016-17
1	Helping hand scheme for KJSIEIT students	Students cannot afford to pay the expenditure of Engineering studies, can avail the funds from Helping hand every year	21	19	09	04
2	Institute Merit cum Means scholarship COMP 01 IT 01 EXTC 06 ETRX 03 Total 11 Scholarship	Economically weak students with excellent academic record. Having distinction Scholarship Amount: 50% fee concession in Tuition Fee finalised by Shikshan Shulka Samiti for the academic year. A total amount of around Rs.59,659 per student is earmarked yearly for the students.	NA	01	06	04

3	Scholarship & fees concession for children of staff	Children of staff members having income under 5 lakhs studying in institutes under trust are paid 50% of tuition fee.	NA	01	01	02
4	Somaiya Scholarship for Women	Open to all Somaiya Vidyavihar / Somaiya Ayurvihar women students with financial need having a good educational track record.	00 NE	00 NE	01	00 NE
5	Somaiya need based scholarship	Open to all Somaiya trust students with financial need and having excellent academic track record	No student found satisfying all the criteria			

*NE: Not Eligible *NA: Not Applicable

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

Following Table 5.2 shows the details of State /Other Scholarships

Table 5.2: State/other Scholarships

Sr. No	Name of Scholarship	No. Of Students availed Scholarship				
		2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
1	SC/VJNT/OBC/SBC	121	107	63	71	*102
2	Minority State Government	51	64	63	59	62
3	Minority Central Government	---	---	7	2	05
4	EBC	71	71	52	42	79
5	ST	3	3	1	1	2
6	Teacher Ward Scholarship	2	2	2	2	0
7	Institute-Merit Cum Means	---	---	1	---	4
8	University EBC	---	---	1	5	4
9	TATA Scholarship	---	---	---	15	15
10	Somaiya Scholarship for Girl	---	---	---	1	---
11	AICTE J & K PMSS Scholarship	---	---	---	0	1
Total		248	247	190	198	*274
% Students receiving Scholarships		18%	18%	14%	14.3%	20%

**In process*

All the institutional scholarships are disbursed timely

5.1.4 What are the specific support services/facilities available for :

✓ **Students from SC/ST, OBC and economically weaker sections.**

Our college is a Gujarati Linguistic Minority Institute. The students who belong to

SC/ST, OBC and the economically weaker sections are given admission under state government reservation policy. The reimbursement of fees is done by means of freships /scholarships provided by the state government. These students are provided with every possible help during their stay in the Institute.

The library has a 'Book Bank Scheme' for different categories of students. For financially weak students, the Institute offers a "Helping Hand Fund" in which eligible candidates are provided with some amount as a help. At the trust level, the Somaiya Trust provides financial support and women's scholarship. There is also a scheme 'Earn while you Learn' through which students can earn by working at the library or as teaching assistants for a specific period.

✓ **Students with physical disabilities**

We have only three students with physical disabilities at present. College makes all effort to cater to their special needs. A ramp is provided for entry into the building/ hostels and lifts with grab bars are available. Grab bars are also installed in the washrooms. Differently abled students are catered to on a priority basis and are not required to maintain a queue for their work at the library, institute office, canteen etc. Somaiya Medical College belonging to the Somaiya Trust is at 200m distance. In the case of a medical emergency, ambulance facility is also available. Physically challenged students are also provided extra facilities as per University rules during Examinations.

✓ **Overseas students**

Institute has no NRI quota, so there are no overseas students in the Institute.

✓ **Students to participate in various competitions-National/International.**

Mentoring and financial aid are provided to students participating in prestigious competitions. Students are encouraged to approach the relevant faculty or departments allocate faculty having expertise in a specific area for mentoring the potential students in the competitions. Laboratories and Institute premises are available to students for preparations. Institute provides considerable financial aid for participation in all prestigious events at regional or national levels. Aid is also given to students involved in extension activities and cultural events like street play. Students participating in sports are given sports kits in addition to the above. Seed money is given for student projects approved.

✓ **Medical assistance to students: health centre, health insurance etc.**

All students are provided with a group health insurance policy, "Yuva Raksha" at the time of admission every year. Medical insurance "Amartya Shiksha Yojana" is also provided to the students.

First aid kit is available in every department. Medical facility and ambulance are provided by the adjacent Somaiya Hospital belonging to our trust during emergencies. A psychologist is appointed to visit our premises twice a week. To create awareness, the doctor has conducted an orientation session for the students. Many students avail the help of the counsellor to deal with their problems.

✓ **Organising coaching classes for competitive exams**

The Institute regularly conducts Personality Development Programmes, soft skill classes and aptitude tests for the preparation of campus placement. The Training and Placement Cell (T & P) in association with the departments conduct these activities routinely. A dedicated training and placement hour is provided in the time table right from second-year classes. Mock aptitude tests and grooming sessions are conducted during training and placement hour. Books and aptitude test software are available in the institute/department library for the preparation of CAT, GATE, GRE, TOEFL, etc. awareness programs are conducted to motivate the students to take up jobs in government sector.

✓ **Skill development (spoken English, computer literacy, etc.)**

To enhance the communication skills of the students, the Institute has developed a “*Language Lab*” with *O’reil audiovisual software*. Grooming sessions are organised there for improving communication skills and placement potential of students. Being an Engineering college, computer courses are part of our curriculum. A computer centre is developed for this purpose. Under various professional bodies, workshops and seminars for students are regularly organised.

✓ **Support for “slow learners”**

Our teaching learning process is student centric. Slow learners hugely benefit from the assignments, question banks and notes, PPT’s which are posted on Google Classrooms. Teachers discuss question banks and test paper solutions in class. Extra and remedial classes are also conducted for weaker students. University solutions are available with faculty and in the departmental library and are available to students. Students are free to approach faculty at any point of time especially during preparatory leave, to solve their doubts. Every class has a WhatsApp group/Google classroom /Somaiya e-mail group which includes faculty. Through these groups, students are able to contact faculty anytime. Most of the faculty offer guidance to students through these groups. Classrooms are open to students for group study during their preparatory leave. The library has extended working hours and is also open on Saturdays.

From the current academic year, the Institute has initiated gap analysis and conduction of prerequisite lectures for academically weak students. This has been effectively implemented in the first year. After every module, multiple choice questions are asked to verify the understanding of the particular module. For subjects like Mathematics, the faculty conducts special sessions. Such additional instruction helps the students who have failed to understand the subject matter. As a result of this, the percentage passing for Mathematics has improved.

In addition to the above-mentioned efforts, there is also a strong mentoring system. Every faculty is a mentor for a group of 20 students. Regular counselling is conducted to understand and sort out their difficulties and to motivate them. Mentors are also in touch with parents, especially parents of defaulter students and parent-teacher meetings are conducted twice a semester.

Library timings up to 7.00 pm in the evening on working days are an added advantage. Students have the facility to access libraries of other Somaiya Institutions through Global Common Circulation Facility of the Trust.

✓ **Exposure of students to other institutions of higher learning/ corporate/business house etc.**

In a bid to expose students to industries and institutions of higher learning, industrial visits are arranged and many experts from industry and institutes like IIT Bombay are invited to deliver seminars and conduct expert lectures. Sessions on business etiquettes are organised by the training and placement team. The IIC and placement cell facilitates opportunities for industry internship for students. Technical workshops are arranged for students to enable them to get hands-on experience in their area of interest. Students also participate in competitions organised by different industries or corporate houses like Google Summer of Code, ACCS ARM India Design Challenge, Texas instruments India Innovation Challenge, TCS code Vita, Deep Blue by Mastek, and CODECHEF by Directi etc. To consolidate our efforts we have created an Industry Institute Interaction Cell (IIIC). This cell has enabled MoU with various industries and plays a key role in arranging industrial visits and internships.

Institute has a membership to access IIT Bombay Library, and is an academic affiliate partner of the Institution of Engineering and Technology (IET) and has a professional membership of CSI, IETE, ISTE, IEI and IEEE. We have local chapters for the outreach programmes of IIT like NPTEL and e-Yantra under NMEICT. We have also set up an Embedded Systems lab in association with ARM University Program and Edivance Technologies.

✓ **Publication of student magazines**

Every year Institute publishes a student's magazine, "Aura" comprising of various articles, students' chapter events, stories, and poems, paintings by students and staff. This magazine is distributed among all the stakeholders of the Institute. Also, technical papers and articles of the students are published in the magazine "Tantradnya", which is the Institute newsletter published quarterly and circulated online. In addition to this, departments also have their own newsletters circulated online every semester.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

At the trust level, we have set up Research Innovation Incubation Design Lab (RiiDL <http://www.RiiDL.org/>) which has received 5 crore grant by Central Government of India. RiiDL promotes entrepreneurship by

- Conducting entrepreneurship related sessions in institutions through student e-cells and associated faculty
- Holding competitions on the campus like Makers Mela.
- Incubating and mentoring new businesses, promoting ideas for patenting
- Consulting for students and faculty seeking input on starting their company

The Institute E-Cell conducts seminars, workshops and expert lectures on entrepreneurship skills and awareness.

The impact of these seminars and workshops can be seen clearly as in last few years eleven students of our institute have set-up their own organisations/ start-ups. A few students are currently working with RiIDL on their innovative ideas.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc

- ✓ ***Additional academic support, flexibility in examinations***
- ✓ ***Special dietary requirements, sports uniform and materials***
- ✓ ***Any others***

Institute strongly promotes participation of students in extracurricular and co-curricular activities for their overall development. We have a Dean Student Welfare, who deals with all the issues related to students. There is a faculty sports coordinator, a cultural coordinator, a technical coordinator and a magazine coordinator. They coordinate the Institute level sports, cultural and technical activities. The team also plays a key role in deciding the policies of the Institute related to student activities. Students also play a vital role in the decision making. We have an active student council and all the institute level activities happen under the umbrella of the student council.

Students are encouraged to participate in both technical and extracurricular activities. The institutional strategies to encourage students include

- Time allocation for extracurricular activities and sports is made in the academic calendar itself. Any committee/ person organising or conducting an event has to include their event in the academic calendar, which is then approved by DQC followed by HOD, IQAC, Dean Academics and finally Principal. Care is taken to schedule all events in such a way that regular classes are not affected.
- Institute provides mentoring and financial support for events like ROBOCON and prestigious technical and cultural and sports activities. Institute has extensive sports facilities.
- 3-4 days are earmarked for sports and cultural activities in the even semester, for conduction of our annual events “Score” and “Surge” which are intercollegiate sports and cultural events. Institute conducts technical festival “Renaissance”, a two-day event in the odd semester, and “Oscillations”, the annual IETE event in February/March. Engineers Day and Science Day are celebrated by inviting eminent personalities. We also conduct a project competition for students at the end of March to enable final year students to showcase their projects.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT /GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.

The Training and Placement Cell of the Institute arranges expert talks and training programs for competitive examinations. The library has books for GATE, GRE, CAT etc. preparations. Institute has set up a dedicated COEPS Cell for conduction of awareness programs related to civil services. The Institute has software for conducting practice sessions for GATE and aptitude tests. The list of students appeared and qualified in various competitive exams are as shown in the following Table 5.3.

Table 5.3 Students qualified in competitive examinations

Sr. No.	Year	GATE		GRE/CAT		TOEFL/IELTS	
		A	Q	A	Q	A	Q
1	2012-2013	3	0	4	4	1	1
2	2013-2014	9	5	4	3	2	2
3	2014-2015	27	2	10	10	1	1
4	2015-2016	32	4	22	22	3	3
5	*2016-2017	14	-	34	-	18	-

A- Appeared Q- Qualified *Result Awaited

5.1.8 What type of counselling services are made available to the students? (academic, personal, career, psycho-social etc.)

- The Institute has a well-established student mentoring system. Faculty members as proctors are allotted to a group of 20 students for counselling of various problems of students. Meeting of Proctor with the students is conducted regularly to discuss academic performance and progress. Proctor also addresses any other personal issues the student may face.
- Parent-teacher meetings (PTM) are arranged twice in a semester to discuss academic performance and progress of the student.
- A psychologist is appointed for counselling the students to promote good mental health. Through counselling, it improves students quality of life. It helps them to deal with stress and other pressures, handle anxiety and fear, resolve family related problems etc.
- T & P cell provides career-related counselling sessions and training programs. The E-Cell provides entrepreneurship related counselling sessions. Alumni student's lectures are organised to guide them about industry working environment.
- Students are also free to approach any faculty to seek guidance on any matter and discuss their concerns.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If yes detail on the services provided to help students identify job opportunities and prepare themselves for an interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

Yes, the institute has a well-structured mechanism for career guidance and is shown in Figure 5.1. The Principal, along with the T&P Officer and departmental coordinators are there to support students for guidance and career development. A faculty from every department work as department coordinator for placements. They constitute the placement committee headed by placement officer. Student coordinators from every department are also part of the T & P cell.

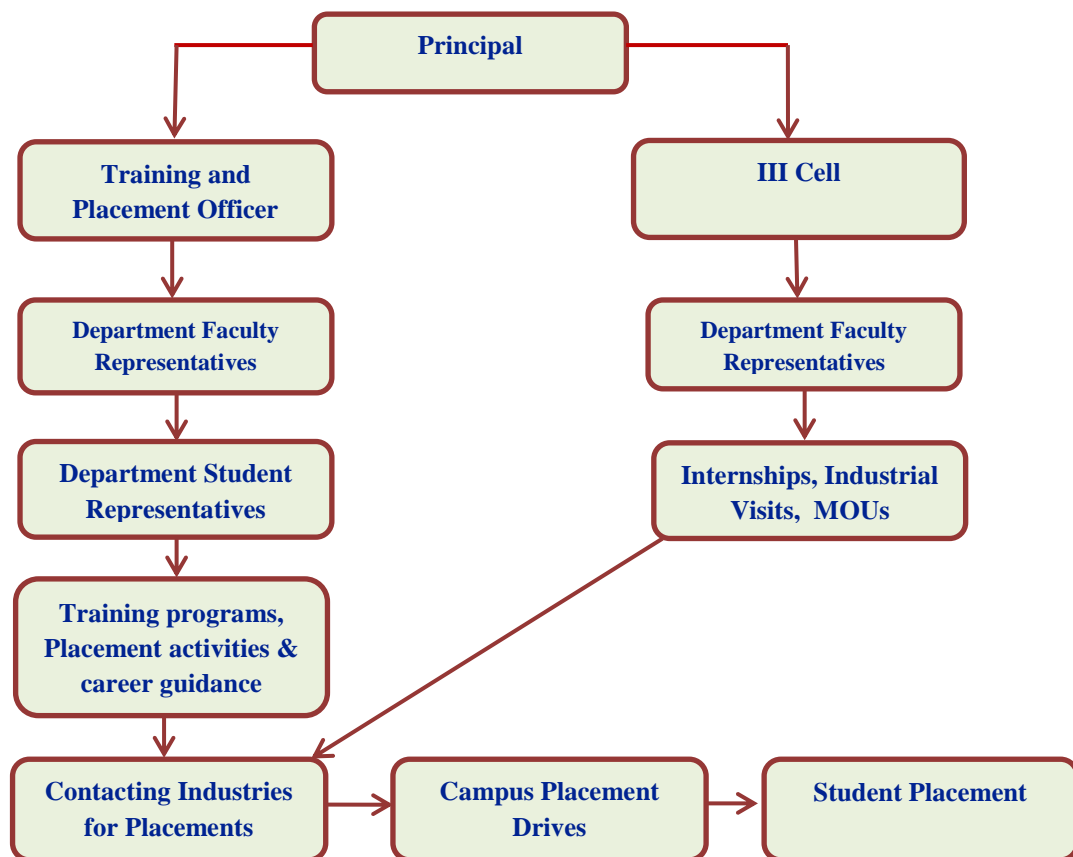


Fig 5.1: Structure for placement and career guidance service

Starting from the second year classes, Institution has earmarked a dedicated T&P hour in the timetables of every class. Training programmes are usually conducted during this slot. Institute has aptitude and GATE test practice software and a language lab to hone the communication skills.

The activities of the T&P cell may be summarised as given below:

- Collecting and maintaining student’s data for placement.
- Facilitating campus recruitment drives and maintaining related records.
- Arranging Expert/guest lecturers of industry personnel, short-term training for students to groom them for better placements and personality development.
- Informing students about the vacancies offered by government and other agencies.
- Collecting feedback from industry and employers, and utilising it in a positive way.

- Arranging for training activities which enhance aptitude and soft skills.
 - Motivating and guiding students for pursuing higher education.
- Placement of Students done in last five years is mentioned in Table 5.4

Table 5.4 Placement Details

Sr. No.	Name of Company	Branch	2012-13	2013-14	2014-15	2015-16	2016-17
1	Accenture	All	72	37	51	82	78
2	Mastek	All	8	8	4	0	0
3	Financial Technology	All	2	0	0	0	0
4	Canopus Instruments	All	1	0	0	0	0
5	Tech Mahindra	All	1	20	4	0	0
6	Bank of America	All	3	0	0	0	0
7	CSC	All	12	5	6	0	0
8	MT Educare	All	3	0	0	0	0
9	IMRB	All	3	0	2	0	0
10	Vercheska	All	4	0	0	0	0
11	Infosys	All	-	46	54	56	49
12	L & T	All	-	-	13	5	8
13	Other	All	-	25	-	-	-
14	Inscripts	All	1	0	0	0	0
Total			111	146	134	143	135*

**ongoing*

The IIIC helps in bridging the gap with industry, by securing internships and projects for students and helps in making them industry ready.

5.1.10 Does the Institution have a student grievance redressal cell? If yes list (if any) the grievances reported and redressed during last 4 years.

Yes, the Institute has a Student Grievance Redress (SGR) cell. It consists of Chairman, coordinator and faculty representatives. The contact details of the members are published on our website. In addition to this, our proctor system helps in attending any grievance of the students. Students can also drop their grievances in the suggestion box placed at the office in the Institute. The grievances are redressed by taking the appropriate actions. In the case of any serious grievance, the committee holds a meeting and give their recommendations to the Principal. During last 4 years,

there has been no grievance of a serious nature. Only suggestions regarding infrastructure and other facilities have been received and they may be summarised as follows:

- Approach road for college and street lights on the pathway.
- Less number of books in library related to general reading and competitive exams, the library timing.
- Improvement for canteen facility.
- Sports related facilities.

The above grievances are redressed by providing a pathway for college from the nearby railway station and installation of solar street lights along with pathway. Book bank scheme is started for students and competitive examination and general reading books are made available in the library. Library timing is extended. Hygienic food is available in canteen. There has been a considerable improvement with respect to sports facilities. Football ground, AstroTurf ground, Volleyball ground, open gymkhana, outdoor table tennis, open carom and cycling track are made available to students for practice.

5.1.11 What is institutional provision for resolving issues pertaining to sexual harassment?

Institute has framed policies as per the guidelines of UGC and UoM to address the cases if any, pertaining to sexual harassment in the college campus. Institute has a College Women Development Cell (CWDC) and anti-sexual harassment committee which caters to complaints of harassment. However, till date, no such case of sexual harassment has been reported in the Institute. The College Woman Development Cell consists of Coordinator, Secretary, NGO-member, faculty and students from different departments.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during last 4 years and what action has been taken on these?

Yes. The Institute has an Anti-Ragging Committee to attend to complaints regarding ragging and to monitor the behaviour of senior students towards junior students. The details of the committee are published on website, prospectus and notice board. Posters regarding anti-ragging and helpline numbers of members are displayed at different places in the Institute premises. There is also an *Anti-Ragging Squad* comprising of faculty members who takes surprise rounds to monitor for any untoward activity. At the time of admission, it is mandatory for every student to fill up an affidavit declaring that they will abstain from any form of ragging. No such instances have been reported till now.

The student council also plays a big role in preventing ragging and creating harmony between the freshmen and senior students. Student Council is involved in the orientation session for newly admitted students and has interaction with them. They also arrange a fresher party for them. Various professional bodies build a good rapport with the newly admitted students. Professional bodies involve new students in various activities organised by them.

5.1.13 Enumerate the Welfare scheme made available to students by the institution.

Institute has started several welfare schemes for the benefit of students. Many of them are already mentioned in table 5.1 and 5.2. Some of the other schemes are:

1. Institute has a Student Grievance Redress Cell, Anti-Ragging Committee and CWDC to sort out any form of internal grievances.
2. There is a well-established proctor system. Every faculty is allotted around 20 students who are mentored by them and they keep track of all their activities.
3. Institute helps students to get government Insurance Policy i.e ‘Amartya Shiksha Yojna’ as well as Students health group insurance of University of Mumbai i.e ‘Yuva Raksha’ since four years.
4. Institute provides books to needy students under ‘Book-Bank Scheme’(BBS) which is as follows:
 - BBS is funded by Social Welfare Department Government of Maharashtra. Students enrolled under SC scholarship are eligible for availing this scheme.
 - BBS funded by Vidyarthi Kalyan Bhavan, Mumbai Vidyapeeth - All the reserved category students are eligible for availing this scheme.
 - BBS funded by KJSIEIT – All students of KJSIEIT are eligible for availing this scheme. Each student who opts for the scheme is issued one book per subject for the semester against a sum of Rs. 700/-. This is in addition to the 6 books available for issue to every student in the campus.
5. SVV has instituted student exchange schemes with a few foreign universities. One of our students has done internship from Hong Kong University.
6. Seed money is given to student projects and participation in technical, sports competition.
7. Institute funds are well known national competition participation like ROBOCON.
8. Institute budgets funds for annual technical, cultural and sports festivals for students.

5.1.14 Does the institution have a registered Alumni Association? If yes, what are its activities and major contribution for institutional, academic and infrastructure development?

KJSIEIT has a registered alumni association. The annual gathering of KJSIEIT Alumni, “Alumnite” is held in January every year. There is an interaction session with staff and alumni. These interactions with alumni have provided invaluable feedback for improvements, and have helped forge associations which have benefitted the Institute.

Contributions

- 1) **Donations:** Mr Prashant Nair, a former student of Computer Department, 2010 batch has donated a high-end computer worth Rs. 80,000/- for Alumni Cell.
- 2) **Workshops:**
 - Mr Ritesh Shah had conducted Summer Internship program on Quad Copter and Raspberry Pi with Linux for EXTC and ETRX students.
 - Mr Hiren Panchal and Mr Ritesh Shah Conducted workshop on 3D Printing for EXTC & ETRX students.

- Mr.Prashant Nair has provided internship on Big Data and Analytics to Computer and IT students.
- Mr.Kunal Panchal had conducted a workshop on “Developing Mobile Applications with the power of HTML 5” for Computer students.
- Mr.Hardik Patel has conducted one day workshop on “Customised online page for Event Organising” for EXTC students.
- Mr Ritesh Shah had conducted Summer Internship program on Quad Copter” for EXTC students.

3) Seminars/Guest Lectures:

- Mr Sagar Thareja has conducted an expert lecture on Entrepreneurship for EXTC students.
- Mr Yaksh Rawal has conducted a guest lecture on “VLSI Design for ETRX students.
- Mr Mayank Purohit delivered a lecture on ” SQL Injection” for Computer and IT Engineering students.
- Mr Gaurav Valecha has conducted a seminar on Introduction to MEMS, opportunities in core Electronics Engineering for ETRX students.
- Mr Miheer Maniyar has conducted a workshop on PCB designing for ETRX students.
- Mr Maharaja Balpandi delivered a guest lecture on “VLSI Design” for ETRX students.
- Ms Ankita Rajadyaksha delivered a lecture on “ Facing the Interview Board” for ETRX students.
- Training and placement-Mock Placement by our alumni: Gaurav Bhor, Kulsum Sayed for IT department students.
- Mr Gaurav Bhor. Delivered lecture on “Wireless Networking”, “Basics of Networking” for IT department students.
- Ms Kulsum Syeda conducted a lecture on “Software Testing” for IT department students.
- Ms Shivani Oza Conducted “Introductory lecture on Mobile Communication” for EXTC students.
- Kapish Agrawal delivered lecture on “Networking Devices and Architecture” for IT department students.
- Mr Anish Pagnis conducted one day workshop on “Ubuntu applications and products” for IT department students.
- Mr Vimal Chaubey has delivered a lecture on “Data Mining” for IT students.
- Mr. Mahesh Kolhe has delivered a lecture on “Application of BI in Industry” for IT department students.
- Mr. Mitesh Shah has delivered a lecture on “Basics of SDLC” for IT department students.
- Mr Mayank Purohit has delivered a lecture on “Public Key Infrastructure”, “PHP” and “Security” for Computer department students.
- Mr. Shantanu Deshmukh has delivered a lecture on ”Advanced JAVA”.
- Mr. Kunal Panchal has delivered an expert talk on “Project Development Strategies for final year Computer department students.
- Mr. Chintan Patel has conducted expert lecture on ”JAVA” for Computer

department students.

- Mr.Sagar Maniar has conducted expert lecture on "JAVA Collections" for Computer department students.
- Mr.Satish Paul has delivered lecture on "PHP" for Computer department students.
- Mr.Pranab Bose has delivered a lecture on "Ethical Hacking" for Computer department students.
- Mr.Suresh Kumar has delivered a lecture on " Search Engine Optimisation" and "Introduction to big data and Hadoop" for Computer department students.
- Mr Anupam Upadhyay delivered a lecture on "4G Network and Mobile Communication" for EXTC students.
- Mr Hara Ekagar Singh has given Motivational Talk on "Job Opportunities" for EXTC students.
- Mr Akash Bhansali has delivered a lecture on "Higher studies in Solar Systems" for EXTC students.

4) Involvement in Institute Activities:

- Mr Kenil Jain CEO of One Roof Technology, Mr Dhaval Dattani CEO of FUDS international has provided internships to the students and also Judged the Project Competition " KJSIEIT – INTECH".
- Mr Kunal Panchal and Mr Suresh Kumar Judged the Project Competition "KJSIEIT – INTECH.
- Mr.Vimal Chaubey Judged the Project Competition "KJSIEIT – INTECH. He is also contributing to the organisation of IET-NICE regional and state level competition.
- Mr Akshay Sawant has taken initiation for Projects given to the final year students
- Some of the alumni are members of DAB and other advisory committees.

5) MoUs with Industries:

- Mr Mayank Purohit and Ms Harpreet Kaur has helped Institute secure MoU with Mastek.
- Current student team from second year IT and second-year Computers has completed a project titled "Alumni Portal" for college under the guidance of our Alumni Mr Shivang Doshi and Mr Gaurav Bhor.

Following Table 5.5 shows the number of alumni activities conducted in various departments:

Table 5.5 Alumni Activities

Sr. No.	Year	Total number of Activities
1	2013-14	06
2	2014-15	25
3	2015-16	16

5.2 Student Progression

5.2.1 *Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.*

The institute provides undergraduate engineering programmes. Our results are better than the UoM average results for the past four years. Every year, many students seek admission for post graduate courses in engineering and management in Indian and foreign universities.

Following Table 5.6 shows the details of student progression for last four years.

Table 5.6 Student Progression record for last four years

Student Progression Percentage				
Academic Year	Campus Placement	Off Campus *Placed	UG to PG	Entrepreneur
2012-13	49.1	64.9	17.8	1.0
2013-14	49.4	44.1	12.0	3.1
2014-15	62.9	36.9	8.1	2.0
2015-16	73.7	11.8	2.8	3.4
2016-17	58.0	NA	NA	NA

**The off-campus data includes a few students who are placed through off campus. This data has been collected from alumni students and LinkedIn accounts.*

5.2.2 *Provide details of programme wise pass percentage and completion rate for the last four years(cohort-wise/batch wise as stipulated by the university)?Furnish programme- wise details in comparison with that of the previous performance of the same Institution and that of the Institutes affiliating university within the city/district.*

As per the academic performance of the student in the Table 5.7 given below, it is clear that the Institute has excellent results as compared to UoM results and other prestigious Institutes in Mumbai.

Table 5.7 Academic Performance of Students

Academic Performance: Comparative Summary						
Programme	Institute	Pass percentage				
		2011-12	2012-13	2013-14	2014-15	2015-16
B.E.(EXTC)	UoM	80.29	86.49	86.43	87.78	--
	KJSIEIT	86.27	89.61	98.56	91.37	96.09
	KJSCOE	91.07	90.1	94.6	93.5	93.2
	RAIT	82.05	87.2	89.34	94.3	-

B.E.(COMP)	UoM	97.40	94.81	94.12	98.51	--
	KJSIEIT	97.40	94.81	94.12	98.51	100
	KJSCOE	90.07	98.58	92.21	95.36	96.1
	RAIT	85.9	89.3	90.7	100	--
B.E.(IT)	UoM	89.47	100	96.25	96.12	--
	KJSIEIT	97.10	92.47	96.25	98.61	97.10
	KJSCOE	90.21	89.13	83.12	91.56	94
	RAIT	97	96	99	95	--
B.E.(ETRX)	UoM	79.15	78.21	83.08	80.08	--
	KJSIEIT	88.40	79.74	83.33	82.19	86.15
	KJSCOE	85.21	83.8	88.73	81.08	87.662
	RAIT	83	71	83	79	--

The data for other colleges are taken from SSR Report of Institutes.

*KJSCOE: K.J Somaiya College of Engineering, Vidyavihar, Mumbai.

*RAIT: Ramrao Adik Institute of Technology, Nerul, Navi Mumbai.

5.2.3 How does the institution facilitate student progression to a higher level of education and/or towards employment?

The T & P Cell strive to place students in industries and in corporate houses by providing training programs, arranging interviews and session for soft skills development. The Institute organises an annual Job Fair for students as part of ISR for the benefit of fresh graduates. We have a variety of training programmes which groom students for placements.

Various services such as various expert talks, workshops and internships are arranged for students. In addition, mentorship, alumni interaction, mock test and Interviews are conducted. The latest books are made available in the library for various competitive examinations. External library memberships like IIT Bombay Library, DELNET, IETE membership are invaluable resources for students. GCC facility is provided by Somaiya Trust, through which students can avail all resources of 39 institute libraries under Somaiya Trust. This facility provides wide exposure to students.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

Special support is provided to students by all departments for weak students. Remedial lectures are conducted for students, especially failed students in order to clear their concepts and for improvement. Counselling is done by the subject teachers as well as the HODs. Proctor system is in place to mentor student individually and keeps track of the progress of the student. Psychologist counselling to students is available. Extended time for payment of fees is made available to students at risk of dropout due to financial issues. EBC and Helping hand scheme are there to support the financially weak students. Somaiya Trust scholarships are available for the needy students.

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

The Institute organises various sports, technical, cultural and other extracurricular activities for the overall development of the students. Students participate in various sports competition such as:

Indoor Games: Chess, Table Tennis, Carom

Outdoor games: Cricket, Football, Volleyball, Lawn Tennis, Open Table Tennis, Open Gymnasium, Garden Chess.

Following Table 5.8 shows the participation of students in various indoor and outdoor games at different levels.

Table 5.8 Details of Participation of Students in Sports Activities

Details of Participation in 2015-16				
Sr. No.	Game	Level	Participant	Ranking
1.	Fencing	National	Archana Rajeshirke	---
2.	Football	University – Intercollegiate	Men's Team	---
3.	Volleyball	University – Intercollegiate	Men's Team	---
4.	Cricket	National level at MIT	Men's Team	---
5.	Badminton	Intercollegiate	Mausami Sabnis	Winner
6.	Badminton	Intercollegiate	Amruta Vibhute	Winner
Details of Participation in 2014-15				
Sr. No.	Game	Level	Participant	Ranking
1.	Fencing	University – Intercollegiate	Archana Rajeshirke	Silver Medal
	Fencing	National	Archana Rajeshirke	---
2.	Football	University – Intercollegiate	Men's Team	---
3.	Volleyball	University – Intercollegiate	Men's Team	---
		Intercollegiate	Men's Team	Winner
4.	Cricket	National level at MIT	Men's Team	---
5.	Badminton	Intercollegiate	Mausami Sabnis	Winner
6.	Badminton	Intercollegiate	Amruta Vibhute	Winner
Details of Participation in 2013-14				
Sr. No.	Game	Level	Participant	Ranking
1.	Fencing	University – Intercollegiate	Archana Rajeshirke	Bronze

2.	Football	University – Intercollegiate	Men's Team	---
3.		Intercollegiate	Men's Team	participant
4.	Cricket	National level at MIT Pune	Men's Team	---
		Intercollegiate at TCOE, Mumbai	Men's Team	Semi finals
Details of Participation in 2012-13				
Sr .No.	Game	Level	Participant	Ranking
1.	Fencing	University – Intercollegiate	Archana Rajeshirke	Participant
2.	Fencing	University – Intercollegiate	Manna Aniket Arun	Participant
3.	Badminton	Institute of Chemical Technology, Matunga -	Amruta Vibhute	Participant
4.	Badminton	Institute of Chemical Technology, Matunga -	Mausami Sabnis	Participant
5.	Football	University -Intercollegiate	Men's Team	Participant
6.	Football	KJSIEIT – Intercollegiate	Men's Team	Runner-up

Sports Activities at the Institute Level

Intercollegiate sports festival of the institute “SCORE” is held in the month of February-March every year. In Score, tournaments for various games are organised. A large number of students and staff members participate in these tournaments.

In SCORE, Chess, Carrom, Table tennis, Badminton tournaments are organised in the Institute as indoor games. As outdoor games, Cricket, Box Cricket, Football, Rink Football, Volleyball, Dodgeball, Throw ball tournaments and an array of events are organised. Tournaments in different categories are organised. The details are given in the Table 5.8.

Following Table 5.9 shows the details of student’s participation in cultural events at different levels and program calendar for sports and cultural festival.

Table 5.9 Details of Participation of Students in Cultural Activities

Sr No.	Date	Activity	Level	Number of students participated
1	25/02/16-26/02/16	Cultural Festival Surge 2K16	Intra college	266
			Intercollege	80
2	20/02/15-21/02/15	Cultural Festival Surge 2K15	Intra college	243
			Intercollege	130
3	25/02/14-26/02/14	Cultural Festival Surge 2K14	Intra college	176
			Intercollege	89
4	25/02/13-26/02/13	Cultural Festival Surge 2K13	Intra college	530
			Intercollege	80

Cultural Activities at Institute Level

Intercollegiate cultural festival of the Institute “Surge” is held in the month of February. Programme calendar of the “SURGE” is mentioned in Table 5.10 Various inter and intra college events such as art exhibition, street play, inter and intra dance, fashion show, persona, Mumbai’s got talent, singing competition, DJ Night etc. are organised as the mega events of the cultural festival.

Table 5.10 Program Calendar of SURGE

Sr. No	Date and Year	Event
1.	28/02/2017 & 1/03/2017	Sports Festival
	2/03/2017 & 3/03/2017	Cultural Festival
2.	23/02/16 & 24/02/16	Sports Festival
	25/02/2016 & 26/02/2016	Cultural Festival
3	16/02/2015 & 18/02/2015	Sports Festival & Cultural Festival
	20/02/2015 & 21/02/2015	Cultural Festival
4.	17/02/2014, 18/02/2014 & 20/02/2014	Sports Festival
	21/02/2014, 22/02/2014	Cultural Festival
5.	24/02/13-25/02/13	Sports Festival
	25/02/13-26/02/13	Cultural Festival

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State /Zonal / National / International, etc. for the previous four years.

Following Table 5.11 shows the details of student’s achievements at different levels:

Table 5.11 Details of Students Achievements

Academic Year	Activity	Level	Student Participation	Student Achievement
2015-16	Co-curricular	University/Zonal	30	1 st , 2 nd prize
	Extracurricular	University/Zonal	70	1 st , 2 nd prize
		State	5	---
		National/International	44	--
Cultural	University/Zonal	28	1 st , 2 nd , 3 rd prize	
2014-15	Co-curricular	University/Zonal	18	1 st , 2 nd prize
		State	04	--
		National/International	15	--
	Extracurricular	University/Zonal	156	1 st , 2 nd prize
		State	4	--
		National/International	87	--
Cultural	University/Zonal	8	1 st , 2 nd , 3 rd prize	

2013-14	Co-curricular	University/Zonal	17	1 st , 2 nd prize
		State	1	--
		National/ International	3	--
	Extracurricular	University/Zonal	43	1 st , 2 nd prize
		National/ International	85	--
Cultural	University/Zonal	17	1 st , 2 nd , 3 rd prize	
2012-13	Co-curricular	University/Zonal	38	1 st , 2 nd prize
		National/ International	2	--
	Extracurricular	University/Zonal	37	1 st , 2 nd prize
		National/ International	267	--
	Cultural	University/Zonal	38	1 st , 2 nd , 3 rd prize

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

Alumni Feedback: Alumni meet is conducted every year and their feedback is obtained. Alumni are invited for guest lectures, seminars, for the conduction of workshops and internship programs to make the students aware of industry requirement. They are also members of advisory committees like DAB and IQAC, providing invaluable advice for the improvement of the Institute.

Workshops and training programs are arranged by the T&P cell and the departments based on feedback from Industry and alumni about industry requirements.

Students Feedback: The student feedback is taken at the mid and end of the semester to improve the teaching-learning process.

Based on Alumni feedback more number of seminars, industrial visit, guest lectures and internship programs are arranged for industrial exposure to students. The faculty members are advised or appreciated by the HOD according to their feedback.

Parent feedback: There are two parent-teacher meetings in a semester during which their feedback is collected.

Industry Feedback: Industry feedback is collected by T&P cell. They organise training programs for students based on this feedback.

In addition to the above, alumni, students, parents and industry persons are members of different advisory committees at Institute and department level. We also have eminent industry personalities on our Governing Body. Many of the activities we plan are based on their counsel.

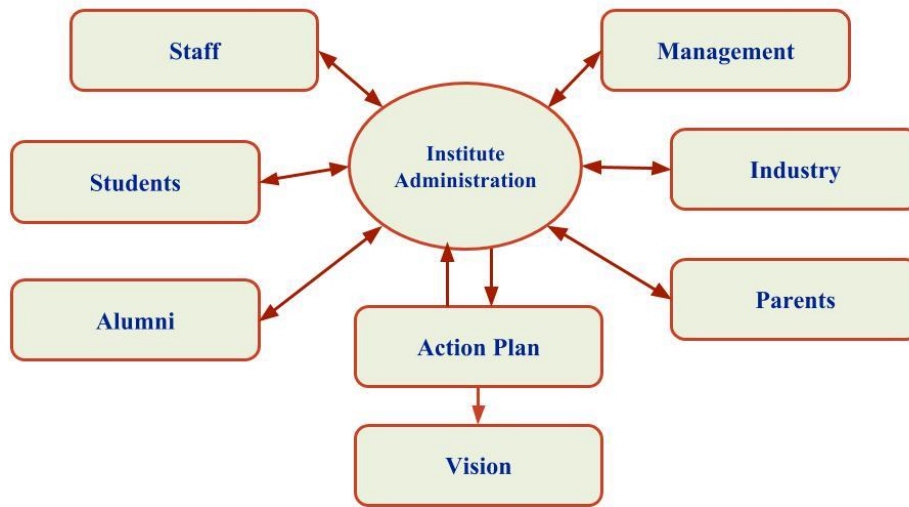


Fig. 5.2 Feedback Mechanism

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

The Institute launched its first Magazine—“**AURA**” in the year 2005. Since then, it has encouraged students to exhibit unique concepts that hone the creativity facets. The Team Aura organises an annual two-day art and literary festival—‘**Carpe Diem**’. Apart from the Institute Magazine, events such as “Illustrate” – Best out of waste articles, “Erase” -Students are provided shaded sheets and are required to draw with the help of an eraser. “**Micro-tales**”-Participants are expected to write a short story or express an emotion within 6 lines with a given word, “**#Hype**”- a debate competition, “**Telly-wise**”- a quiz conducted as per popular demand, “**Photo-synthesis**”- a photography competition, “**Envision**”-Participants are given a unique picture and instructed to write down their interpretation of the picture. Such events are instrumental in promoting the literary and creative aspects of their personality. The Institute Newsletter—“**Tantradnya**” is assisted by the team of students who contribute to the magazine release. The Newsletter is released tri-annually and covers the core events of the Institute.

Students are encouraged to prepare banners, posters and brochures of the various institutional activities which show their creativity. Following Table 5.12 shows the details of students technical publications in National Conference, International Conference and International Journals from various branches:

Table 5.12 Student Technical Publication Details

Sr. No	Publication	Technical Publication done by number of students		
		Year 2014-15	Year 2015-16	Year 2016-17
1	National Conference	21	03	03
2	International Conference	01	05	03
3	International Journal	34	58	34

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Yes, The Institute has a student council. The Student Council carries out various student welfare activities throughout the year. The selection of students in student’s council is carried out by the Dean Student welfare, with the help of faculty coordinators/ In charges for sports, cultural, NSS, technical, Magazine etc. The Selection for core committee member is based on criteria such as previous working experience in the committee, good academic record, good communication skills, good public relations etc. Interviews of the aspirants are conducted to finalise the members. Approval of selected committee members are validated by the Principal. Faculty and students are involved in coordinating the selection process. The activities are funded by the college and also from sponsorships received. The proposed budget for all activities is approved by Principal.

Objectives of Student Council:

To provide essential support required for academic and co-curricular activities of students

- To prepare plan and execute programs for holistic development of the students
- To work with sports, cultural and technical activity in-charges for organising programmes
- To enable effective participation of students in the student's related activities
- To engage students in socially relevant activities
- To attend to the grievance of students and provide them with all possible support

The following Table 5.13 shows constitution of student council for the Academic Year 2016-2017:

Table 5.13 Details of student council

Sr. No	Name of Student	Position	Class
1	Krupal Patel	General Secretary	TE- ETRX
2	Vatan Shah	It.General Secretary	TE - IT
3	Karan Bhavsar	Cultural Secretary	TE - IT
4	Moksha Shah	Treasurer	TE - IT
5	Badal Kotak	Technical Secretary	TE - IT

6	Siddhesh Panchal	Sports Secretary	TE - COMPS
7	Manan Trivedi	Chief Executive Officer	TE - EXTC - B
8	Paromita Chakrabarti	Public Relations Officer	TE - ETRX
9	Nisha Iyer	Ladies Representative	TE - IT
10	Shreyas Vaidya	Library Representative	TE - ETRX
11	Kunjali Khuman	NSS head	TE - ETRX

The student welfare activities organised are as follows:

1. Cultural Festival (Surge)
2. Technical Festival (Renaissance)
3. Sports Festival (Score)
4. Independence Day
5. National Youth Day.
6. Campus Ganpati Festival
7. Extension activities.
8. Republic Day.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

The Institute has various academic and administrative bodies that have student representatives on them such as T&P, IQAC, Library, DAB, Student Grievance Committee, Class Representatives, Alumni Association, Various professional bodies,

Anti Ragging Committee, CWD cell, Student Council, other than this there are various dedicated staff and student teams ,cells & clubs which organises various activities for the specialised interest of students like Cyber Security & Research Cell, IOT cell, Project Competition cell, Robotics cell.

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution? Any other relevant information regarding Student Support and Progression which the college would like to include.

One of the strengths of the Institute is the young and dynamic faculty. There have been no retirements till date. A few former faculty who have left the institute due to varied personal reasons are contributing to the institute as external examiners, experts for technical competitions, expert lectures etc. Alumni meet (*Alumnite*) is conducted every year to build a strong network of the institution with them. To collaborate with the Alumni, conduction of various activities such as technical workshops, guest lectures and seminars are organised as elaborated in section 5.1.14 Programming club, Infinite club, Hobby club, COEPS cell, Street Play team, Nakshatra team etc.



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Criterion-VI : *Governance Leadership and Management*



CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1. State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Our Institute belongs to the prestigious Somaiya Vidyavihar Trust. The Founder of our trust is the late Pujya Padmabhushan Shriman Karamshibhai Jethabhai Somaiya a noted entrepreneur and philanthropist. The motto envisaged by our founder is: ज्ञानादेवतुकेवल्यम् i.e; "Knowledge alone liberates". Our aim is to build a more inclusive society with access and opportunity for all. The trust strives for excellence in education. The vision and mission of our Institute is aligned to the vision of our founders.

Vision of the Institute

To be universally accepted as a synonym of quality, excellence and commitment in the field of engineering education by nurturing talent and transforming young minds to realise their potential and become future ready engineers.

Mission of the Institute

- To provide students with an extensive knowledge of engineering to refine their professional skills.
- To nurture creativity and innovation while encouraging multidisciplinary interaction.
- To train students to be industry ready and capable of working effectively as an individual and in a team.
- To inculcate ethical behaviour, responsibility and commitment among students.

The Institute has defined its distinctive characteristics in the mission statement as follows:

In our mission statements, we have laid emphasis on the holistic development of students. We have identified the need to nurture their talent, leadership, values and teamwork capabilities. Our mission focuses on the interest areas such as industry, leadership and responsible citizenship through teaching, research and extension activities. The mission enables every individual to identify and solve problems of society by empowering the students and staff to work on the needs of the society and all stakeholders.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Our Institute K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai is established by Somaiya Vidyavihar Trust, the Charitable Trust

under Society Reg. Act XXI of 1860 as BOM-71/1959 GBBSD dated the 9th day of September 1959. The Institute is affiliated to UoM. The conduct of all the activities related to the academic requirements of engineering syllabi is in accordance with the objectives approved by the UoM. The Institute Governing Body (GB) has eminent educationists from India and abroad as its members. GB is the apex body with complete authority.

The role of the GB is to:

- To approve the vision and mission of the institution, strategic plans and annual budgets, ensuring that these meet the interests of all stakeholders.
- To ensure the establishment and monitoring of proper, effective and efficient systems of control and accountability
- To monitor institutional performance and quality assurance arrangements, which should be, where possible and appropriate, benchmarked against other institutions nationally and internationally
- To put in place suitable arrangements for monitoring the head of the institution's performance.

The Principal, Vice Principal, HODs, Deans and coordinators of different committees monitors and analyses the routine administration and academic work and coordinates to review the progress and interim development plan for the departments, teaching and non-teaching staff and the students. These reviews form the basis of recognising strength and accomplishments. They identify the gaps for further up-gradation and improvisation. Resource allocation is finalised by this group.

The duties/responsibilities of the Principal:

- To monitor and conduct academic activities as per the University syllabus and conduct examinations.
- Admission of students and maintenance of discipline of the college.
- To monitor & manage the administration of the institution, organise meetings of GB and LMC.
- To review Institute policies, procedures, and recommendations for appointment, salary, retention and/or promotion of faculty, and ensuring that all policies are followed.
- To make the employee and students aware of the rules, policies and procedures of the Institute and see to it that they are enforced.
- To see that the Institute complies with the rules of UoM, AICTE and DTE.
- To provide leadership and motivation to all staff to use 'job' related work as an opportunity for learning and self-development externally and internally.
- Assure quality at every level by guiding and working in close coordination with the Deans, HODs and in-charges of committees and Section heads and to devise effective means of measurement of quality through the Internal Quality Assurance Cell (IQAC).
- To promote industry institution interaction and research and development activity.
- To create an environment of team spirit and help all to take ownership of their work while offering complete freedom for innovations in day to day academics and administration
- To initiate recruitment of teaching staff and non-teaching staff as per rules laid down by the University of Mumbai and Somaiya Vidyavihar time to time.

- To communicate with the University of Mumbai, Directorate of Technical Education, All India Council for Technical Education and University Grants Commission for compliance.

For efficient administration, various Institute level committees are constituted, the important ones being Academic Committee, LMC, IQAC, R&D, IIC, T&P, Alumni and Student Welfare Committee.

The Local Management Committee:

The Local Managing Committee comprises of Management representative, nominated members and elected representatives of teaching and non-teaching staff. The principal is the Member-Secretary. The LMC is responsible for proposing and supervising policy decisions in compliance with the vision and the mission of the Institute. Following are the duties and responsibilities of Local Managing Committee:

- To prepare the budget and financial statements;
- To recommend to the management the creation of teaching and other posts;
- To make recommendations to the management for the improvement of the standard of teaching in the college;
- To formulate proposals for supplementary budget sanctions.
- To advise the principal regarding the intake capacity of various classes, preparation of timetables, distribution of the available teaching workload and such other matters relating to the internal management of the college and discipline of the college students as may be referred to it by, the principal, from time to time.
- To consider and make recommendations on the inspection report, if any;
- To consider and make recommendations on the report of the local inquiry committee, if any;
- To prepare the annual report on the work done by the committee for the year ending on the 30th June and submit the same to the management and GB.
- To perform such other duties and exercise such other powers as may be entrusted by the management and the university

Academic Committee headed by Dean Academics:

- To prepare an academic calendar
- To oversee timetable preparation and resource allocation.
- To ensure timely completion of syllabi through effective monitoring of the department.
- To conduct an internal academic audit.
- To organise external academic audit.
- To evaluate departmental performance and provide support if and when needed.
- To monitor attendance and analyse monthly attendance reports.
- To schedule all extra-curricular and co-curricular activities in academic calendar in the most effective manner and organise various faculty and staff development programs for continuing education.
- To provide recommendations to the Principal on policies and procedures, especially in the academic area;

IQAC:

- To frame policies to direct the institution towards academic excellence.

- To Develop and apply quality criteria for the various academic and administrative activities of the Institute.
- To develop audit and feedback mechanisms to monitor the implementation and realisation of defined criteria.
- To Dissemination and documentation of information on the various quality parameters of higher education;
- To review the policies and criteria to keep up with the current trends.
- Preparation of annual quality assurance report based on the quality parameters/assessment criteria developed by the relevant quality assurance bodies in the prescribed format.

Research and Development Cell:

- To Formulate and recommend policy for the strategic development of research and enhancement of the quality of the Institute's performance and environment related to innovation and research.
- To advise the Principal and management on national and international trends in the development of performance indicators for research, the appropriate use of funds allocated to research and research infrastructure, proposals for change in policy and any other research-related matters that may arise from time to time.
- To generate grants for research activities from external sources like CSIR, UGC, AICTE, DST, DAE etc.
- To Reviews research proposals submitted by faculty and make recommendations for Institute grants and sabbaticals.
- The committee also has the responsibility of preparing projected and revised budgets for research.

Student Welfare Committee (SWC):

- The SWC is the point of contact for all student related activities. They monitor the pulse of the students through interaction with the student council.
- To guide the student council in all activities and counsel students for any issue that may arise.
- To assist students for effective organisation of extracurricular and co-curricular activities in and outside the campus.
- To maintain a ragging free environment in the Institute with the help of Anti ragging committee.

Industry Institute Interaction Cell (IIIC):

- To augment the research and consultancy activities by forging ties with relevant industry.
- To improve placement opportunities for students.
- To arrange industrial training and industrial visits and internships for the students and faculty.
- To organise seminars, symposiums, exhibitions and workshops on latest technological advancements, evaluation of project work with the collaborative efforts between industrial experts and to organise industrial visits.

Alumni Cell:

- To work closely with the Alumni, ensuring strong and productive relationships

with the Institute and implement alumni programs that support the Institute's strategic plan.

- To maintain alumni database records, maintain regular communication with them and collect information by means of surveys, correspondence, website, etc.
- To educate graduating students about alumni benefits and engage them in programs for Institute development.
- To raise funds for select special projects and events in collaboration with alumni
- To manage Corporate Social Responsibility (CSR) funding, relationship management with companies, public firms and trusts for offering scholarships, special officials or guests, alumni and industry for sponsored lectures/ talks.
- To manage donations from alumni

6.1.3 What is the involvement of the leadership in ensuring:

- ✓ *the policy statements and action plans for fulfilment of the stated mission*
- ✓ *formulation of action plans for all operations and incorporation of the same into the institutional strategic plan*
- ✓ *Interaction with stakeholders*
- ✓ *Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders*
- ✓ *Reinforcing the culture of excellence*
- ✓ *Champion organisational change*

✓ Ensuring the policy statement and action plans for fulfilment of the stated mission:

Our mission stresses on improving the professional, interpersonal and teamwork skills of the students while nurturing creativity and ethical behaviour. Our management takes full responsibility to provide the financial resources and infrastructure for fulfilling our mission. Management has also ensured that guidance from eminent personalities in academia and industry is available for us through the GB and other advisory committees. Everyone is made responsible for the different activities required for accomplishing the mission by creating many groups and committees. The action plans of these committees or departments are submitted by the in-charges, Heads and Deans concerned. Principal takes reviews of the working of these committees periodically. This ensures that each and every person is involved in realising the mission.

✓ Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan:

All HODs, deans and committee in-charges give short term and long term plan for their respective sections. This is reviewed many times before preparing the Institute strategic plan. The strategic plan is presented by the Principal in the GB meeting. The academic calendar is prepared considering, activities by all committees and student chapters. Departmental calendars are also prepared in alignment with Institute calendar. The DQC decides the list of activities that will be carried out in the department, from the proposed list of activities.

✓ **Interaction with stakeholders:**

Leadership has made provision for interacting with and obtaining feedback from all stakeholders. Student interaction is through the Student Council and various students committees and chapters. Current students and alumni students are part of advisory boards like DAB and IQAC and DQC. Institute has a Proctor system and proctor meetings are a window to interact with the students. Feedback from students is also obtained every semester through an online feedback system which also provides anonymity, thereby giving students an opportunity to speak their mind.

Institute conducts an orientation program for first-year students and their parents to share the working model of the system. Regular parent-teacher meetings every semester are another feature. Parents are also part of departmental advisory committees.

For interacting with alumni, Institute has a registered body of Alumni and we conduct alumni meet once a year to share the experiences, progress of the alumni and discussing with them about how the alumni can associate with the organisation to empower and motivate their juniors who are learning in the Institute. There is also an alumni portal through which feedback is obtained.

Interaction with Industry experts through IIIC, T&P cell, R&D cell and industry experts on board/various committees enable us to get the industry perspective.

✓ **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders:**

Feedback from different sources are analysed by departments and it is discussed during HOD meetings and changes are incorporated in our action plan based on inputs. The activities during the year are planned according to needs of students and current trends in industry.

✓ **Reinforcing the culture of excellence:**

Quality is the main motto while organising any program in our Institute. The objectives of any program we organise are clearly defined and mapped to the PO of the department. The annual “Somaiya Awards” for the faculty, staff and students, acknowledges excellence in teaching, research, and extension activities. Also, on the occasion of Teacher's' Day and Engineers' Day, we felicitate our students for best rank and result in the examinations, their achievement in sports and curricular and extracurricular activities and teachers for 100% results in the courses they have taught as well as their research publications in journals and conferences. It helps to motivate students, faculty and staff to improve their quality of teaching and learning and service and inspires them to become the best in the organisation.

✓ **Champion organisational change:**

“To improve is to change, to be perfect is to change often.” Continuous performance analysis and improvement are woven into the strategy for realising our vision. Changes are incorporated considering input from all sources and review of all strategies is done on a regular basis.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

We have systems in place to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time. This involves committees whose functions supplement each other. The key committees are depicted in fig. 6.1

The AC (Academic Committee) and PAC (Program Assessment Committee) monitor the teaching process including syllabus coverage and feedback. DQC (Department Quality Cell) plans the activities needed for bridging gaps and achieving the program outcomes. The DAB (Department Advisory Board) reviews the process involved and gives input to improve overall performance. IQAC provides frameworks for implementation and measurement of quality and conducts an internal audit. R&D cell takes care of research and project related criteria and IIC concentrates on improving industry liaisons. The student community interacts with leadership through the SWC which deals with the student council and various professional chapters. Alumni feedback is channelized through a dedicated alumni committee. All the inputs are communicated by the principal to the GB and vice versa.

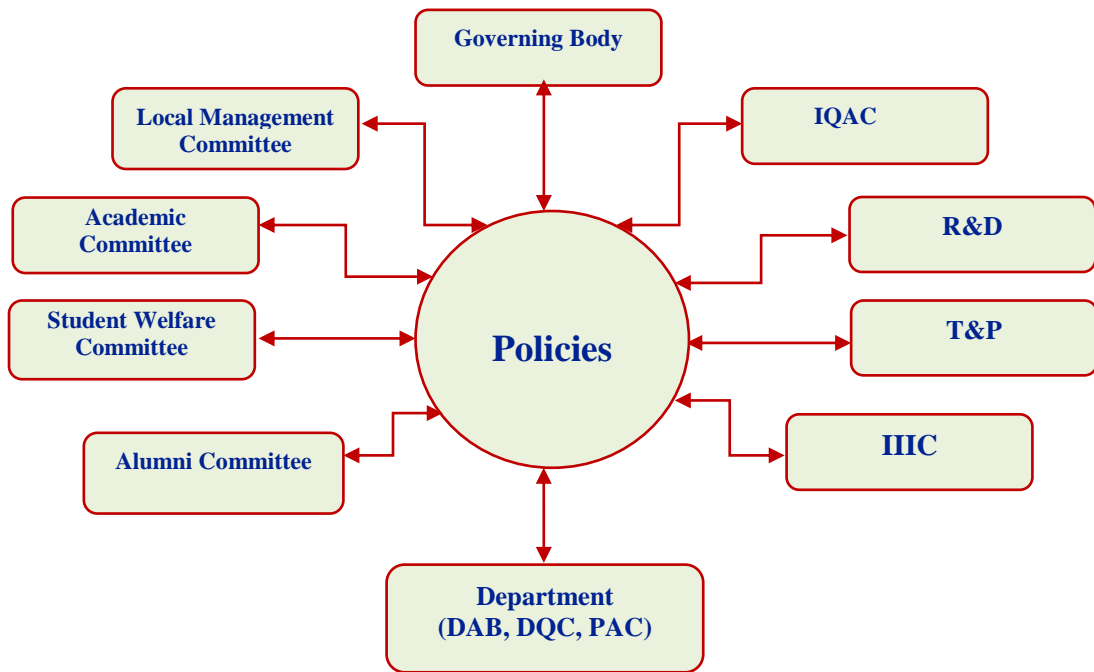


Figure 6.1: Implementation and Revision of Policies

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

The Institute is affiliated to the UoM, state of Maharashtra. Institute nominates its representatives to various statutory committees to provide administrative, academic and curriculum development inputs.

- The Chairman of our Trust, Shri. Samir Somaiya is an alumnus of Ivy League universities like Cornell and Harvard. His experience and vision plays a huge role in the development strategy of our college.
- Shri V. Ranganathan, Secretary of SVV Trust and member of our GB is a retired

Municipal Commissioner of Mumbai

- The members of our Governing Body are eminent personalities in the field of education and industry. We have on board Dr, Larry Professor, Cornell University, UK , Dr V.N Gupchup, who is ex-chairperson, National Board of Accreditation, and many other professors from prominent Institutes.
- Our Provost, Dr Rajan Welukar, was previously the Vice Chancellor of University of Mumbai and was instrumental in bringing about many reforms in the University.
- Our Principal, Dr Suresh Ukarande is former Dean, Faculty of Technology, UoM. He has been accorded a second term in an equivalent position to the Dean as coordinator of Faculty of Technology, UoM due to his outstanding contributions made to the University during his tenure. As Dean, Faculty of Technology, he has been instrumental in implementing a number of policy decisions related to Teaching-learning and evaluation. Some of the important reforms are enumerated below:
 - He has presided over two syllabus revisions in the University of Mumbai. He introduced Credit and Grading System for the first time in University of Mumbai from the academic year 2012-13. From the academic year 16-17, he has introduced the choice based credit system in engineering colleges under UoM.
 - Under his leadership, many measures were implemented for the Faculty of Technology, to eliminate instances of malpractice and to streamline the processes related to examinations and evaluation. The e-delivery of question papers to all the Engineering colleges from the first half of 2012 examination onwards by E – delivery (DEPDS) and stopping the hand delivery mode and the onscreen assessment, moderation and revaluation of engineering examination papers by the Faculty of Technology from December 2013 examination were crucial in this regard. The examination system was modernised and made more user-friendly by introducing the online updating of examiners panel from 2013 and online acceptance of exam forms for engineering students.
 - Under Dr S K Ukarande’s leadership, Faculty of technology have taken a great initiative in inculcating research culture among the teachers and students:
 - The number of research centres under university was increased, enabling the increase in intake from 50 to 400.
 - The conduction of many workshops and seminars, lead to Gold and Silver medals by UoM in the statewide inter-university research convention Avishkar.
 - Enabled a robotic revolution in the education domain by the introduction of e-Yantra, a project by IIT Bombay under NMEICT.

He is also a member of a number of committees in UoM and other Universities. The important ones are given below:

- Chairman, Board of Studies in Civil Engineering of University of Mumbai
- Member of Academic Council, Senate, Management Council and Board of Examinations, UoM.
- Vice Chancellor’s Nominee on Staff Selection Committee at many Engineering Colleges.
- Member, Board of Studies in Civil Engineering of Dr Babasaheb Ambedkar Marathwada University.

- Member, Research and Recognition Committee in Board of Studies in Civil Engineering of Dr Babasaheb Ambedkar Marathwada University.
- Member, National Executive Council of ISTE.
- Local Sectional Secretary, Engineering Science Section, 102nd ISC 2015 of Indian Science Congress Association.

To acknowledge his many accomplishments in the field of education, he was conferred the "**Best Engineering College Principal Award 2017**" by ISTE Maharashtra and Goa Section, under 14th ISTE Annual State Convention held at Bharti Vidyapeeth University COE, Pune on 17th February 2017.

- Dr Sunita Patil, Vice Principal is a Vice Chairman, for IET Mumbai Local Network. She has also represented as a Vice Chairman, Young Professional Section of IET Mumbai Local Network for the year 2015-16. She is also a:
 - Member of Board of Studies of KIT, Shivaji University.
 - Adjunct Professor for KIT, Shivaji University.
 - Session Chair For National symposium on Advance Computing at Walchand College of Engineering, Sangli, Shivaji University.
 - Appointed as a member of Moderation Committee of UoM in Computer Engineering and Information Technology for First and Second Half 2016.
- Dr Milind Nemade, HoD Electronics is an adjunct professor in Saraswati college of Engineering Mumbai. He is also:
 - Editorial board member IJARFC.
 - Reviewer for IJST
 - Technical Program Committee member for ICNTE 2017 and ICSPICC 2016
 - Session Chair for ICETCC 2017
 - Member of the Vigilance Squad to the Examination Centers
 - Moderation Committee Member
- Dr Jayashree Khanapuri is a reviewer for International Conference, VESIT, Chembur

These leaders are able to set the standards required by faculty to take the Institute towards its vision. The Principal has administrative autonomy and he in turn gives freedom to the department heads to execute academic plans. Faculty is entrusted with responsibilities proportionate to their abilities and aptitude.

6.1.6 How does the college groom leadership at various levels?

The Principal and top management guides every committee/department and reviews the output periodically. Almost every committee has a departmental representative who implements the activities of the committee in his/her department with complete cooperation from the head of the department. This improves their decision-making capabilities and increases involvement in the Institute activities. Senior faculty are in-charges of the committees and are given full authority to take proper decisions for the smooth working of the committee and with full involvement of the committee members, organise quality events for the progress of the students.

Institute has student council where students are the members of the council and they have full authority to conduct events for the students. They are working under the teacher coordinators. Students are also members of a few advisory boards like IQAC and DAB. All committees and student chapters enjoy freedom within the framework of rules. Top leadership intervenes only if policy issues are involved.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments/units of the institution and work towards decentralised governance system?

The Institute believes in promoting a culture of decentralised governance system with well-defined coordination and inter-relationships. Adequate autonomy and freedom are given to all the departments to carry out the teaching and learning process smoothly. HOD is the primary decision maker and he is assisted by class teachers, PAC and DQC. Inputs from all stakeholders are collected before decisions are enforced. Similarly, HODs are involved in implementing most rules at Institute level.

The type of formative assessment and teaching methodology for any subject is the prerogative of individual teachers.

- The faculty is given the opportunity to function as team leaders for committees and the activities of these committees are decided by them. Also, the faculty is given the opportunity to conduct events and programmes at department and Institute level.
- The student council and student chapters are allowed to plan and conduct events. This shapes their personality and enhances leadership skills.
- Non-teaching faculty are also involved in all the events and sometimes take the lead in organising them, and this enforces the culture of participation and decision-making capabilities.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes. The Institute promotes a culture of participative management. There are many committees formed for the smooth functioning of the Institute/ Department and different faculty members, non-teaching staff and students are participants of these committees. Representatives of all stakeholders, i.e.; students, faculty, non-teaching staff, parents, alumni and industry representatives are members of different advisory committees. This gives everyone an opportunity to be part of the decision-making process. Decisions are taken considering feedback received from all stakeholders. Also, we have SVV domain services including email through which anyone can interact with anyone else in the organisation and this is an ideal forum for the amalgamation of ideas and suggestions.

6.2. Strategy Development and Deployment

6.2.1. Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and renewed?

We had always followed a quality policy dictated by our mission and vision. There were systems and practices in place which helped us manage the academic and administrative affairs smoothly. However, awareness related to accreditation has made us realise the importance of having a formally stated quality policy. We have

put into words all the criteria we were already practising. We have also taken into consideration expectations of all stakeholders, be it students, faculty, management, alumni, parents and the committees of UoM like the local inquiry committee and DTE inspection team over the years. All suggestions were compiled and debated before finalising them. The shortlisted statements were finally approved by our Governing Body.

Quality Policy:

- To conform to the requirements of regulatory authorities viz; All India Council for Technical Education (AICTE), Directorate of Technical Education (DTE) and UoM.
- To maintain transparency and fair practices in admission and recruitment processes.
- To ensure continuous evaluation and examination process.
- To ensure best academic ambience by providing high-end equipment in the laboratories, computers, learning resources and smart classrooms.
- To ensure a safe and secure environment for all stakeholders.
- To promote industry Institute interaction, research and development, placements, technical, co-curricular and extracurricular activities.

We have deployed our policy on the Institute website, printed in journals, manuals, and on display boards in the Principal room and laboratories.

6.2.2. Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes. The Institute has a perspective plan for development. HODs and all deans, IQAC and section in-charges are asked to submit the strategic plan for their respective departments and portfolios. The suggestions of the DAB and DQC of the department are considered for the departmental strategic plan. Other committees/ sections like IQAC, library, R&D cell, IIIC etc. consider the suggestions put forth in their respective advisory committees.

All the plans are reviewed by the Principal and the Institute strategic plan is prepared, which is finally put up before the GB. The annual budget is also prepared considering the yearly requirements of the departments. The different aspects considered in the development plan are new infrastructure for curriculum and sports, academic initiatives, research and development.

6.2.3. Describe the internal organisational structure and decision-making processes.

The GB includes eminent academicians from India and abroad, industrialists, financial consultants and nominees of the state government, UoM and AICTE. We believe in empowering faculty and delegating responsibility. Many committees exist in the Institute for effective administration and meeting of objectives. These committees include teaching and non-teaching staff members and students. New proposals may be put up by an individual or a committee and it is first placed before the concerned committee who then forwards it to the next higher authority with appropriate remarks. Proposals are usually related to curricular and co-curricular

activities, infrastructure requirements, modifications or maintenance, research related or is of a personal nature. The decision can be taken by the first level itself if the matter at hand is within its ambit. All decisions are communicated to the next higher authority for information and for transparency. In this way, faculty take responsibility for their actions and are involved in the decision-making process.

All activities are conducted as per the academic calendar. This is decided after considering activities proposed by all committees and departments. Dean Academics and Dean Student Welfare takes care of activity related proposals and research proposals involve dean R&D and also Dean IIIC if required. Important proposals need the approval of principal and also of trust if required. *Please refer figure 6.2.*

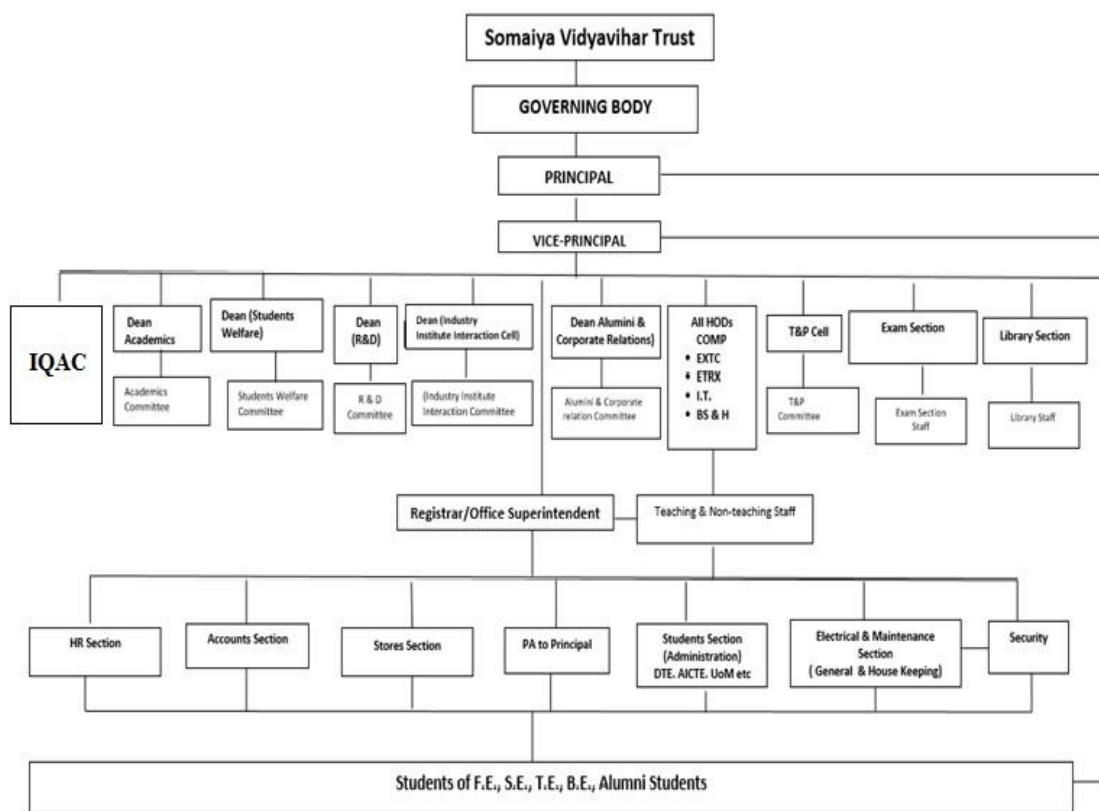


Figure 6.2: Organisational chart of the Institute

6.2.4. Give a broad description of the quality improvement strategies of the institution for each of the following

- ✓ **Teaching and Learning**
- ✓ **Research and Development Cell**
- ✓ **Community engagement**
- ✓ **Human resource management**
- ✓ **Industry interaction**

✓ **Teaching and Learning**

The academic cell under Dean Academics contributes a great deal to improve the teaching-learning process. Preparation of academic calendar, the timely completion of

syllabus, the preparedness of faculty, and arranging for external academic audit is done by Academic Committee. Date wise lesson plan preparation helps the teachers to make a proper plan for coverage of the syllabus and to make arrangement in advance for extra lectures if needed to cover the syllabus. Mid-semester, the Academic Committee takes a review of the coverage of syllabus from the teachers and prepares a mid-academic report. The Academic Committee has arranged an external academic audit of the departments.

IQAC conducts programs on teaching learning improvement strategies and pedagogy, usage of ICT, calculation of attainment of CO and program articulation matrix, and has developed formats which make the process of assessment transparent and easy.

IQAC has also developed a format for continuous evaluation of students based on a rubric, and this is also communicated to the students. IQAC audits the course file to monitor and gives suggestion regarding course outcomes and assessment methods.

End semester, a term-end report is prepared by every department briefly covering all the activities of the entire semester. This report also helps in preparing the departmental newsletter.

✓ **Research and Development Cell**

The Institute has a Research and Development Cell. The cell is responsible for a research policy to promote research at various levels. The faculty is encouraged to attend as well as organise FDPs, STTPs. Institute organises workshops, seminars and expert talk on latest trends and technology. The faculty is encouraged to write research proposal and patents for different funding agencies and to publish research articles at national and international forums.

✓ **Community engagement**

- **NSS cell:** NSS cell is engaged in the social activities and is organising various events like Road Safety week, cleanliness drive, blood donation drive, voter's awareness drive, etc. NSS has a tie up with NGO. Our NSS has conducted cleanliness drive at Chunabhatti railway station two times. Cleanliness cum beautification drive on the theme of the **right to education** was conducted at Kurla station. They have also conducted a camp in the tribal areas of Nareshwadi and Towerwadi and adopted Towerwadi village for their social work. They conducted a seminar on "Higher studies" for the villagers of Towerwadi. They also conducted a flag hoisting ceremony at Towerwadi, Panvel on 26th Jan 2017.
- Blood donation camp is organised every semester in association with Somaiya hospital.
- **Robotics Cell:** As the foundation to turn India into a strong nation has to be laid down at primary and rural levels, the quality of education right from the beginning should be excellent. The students of our institute are conducting various workshops on robotic technology to impart their technical knowledge among school children in rural areas and trying to build the mindset of these poor students to learn and work on the upcoming technology and to become a part of "SKILLED INDIA". The cell conducts Robotic Workshops in every school of Somaiya Trust, since last four years.
- **College Women Development Cell:** In view of spreading a positive environment for women, the Institute has formed College Women Development Cell (CWDC). It is engaged in various activities to create awareness on topics concerning women

development.

- **Nakshatra:** Objective of this committee is to spread awareness of Marathi language which is our native language of the State. It is responsible for conducting cultural activities by famous Marathi writers and celebrities and conduct programmes to celebrate Marathi Bhasha Diwas every year.
- **Helping hand:** KJSIEIT-Helping Hand for poor students to get scholarships and department appreciations help to motivate the community towards their efforts for excellence.
- **Dramebaaz Team:** Dramebaaz, our street play team of students is engaged in doing awareness about save a girl child, education and various social issues. These issues are addressed in front of the public by the activity of street play at various places. They are trained by the faculty and non-teaching staff of our Institute.
- **Green club:** Institute has a green club for creating environmental awareness and maintaining the greenery of the campus. Composting of canteen waste is initiated by this club.

✓ **Human resource management**

The HR department is involved in the overall development of faculty and staff.

- As per Maharashtra government norms, gratuity, provident fund, medical insurance is given to all the non-teaching members and Group medical Insurance is given to non-teaching Staff.
- Local Travelling Allowance is allowed to staff and faculty
- To encourage higher studies and to enhance academics as well as the career of teaching staff a facility of paid leave (prescribed in higher education policy) is given to deserving candidates wanting to pursue higher studies.
- To encourage extra co-curricular activity all non-teaching staff members are allowed to participate in intercollegiate sports and Cultural activities.
- No Professional tax to the handicap staff members.
- To encourage the faculty members to participate in Research and Development activity, sponsorship is provided for participation in workshops and conferences as per policy.
- Institute has a policy of reimbursing Rs. 50,000/- P. A. of the tuition fee of children of non-teaching employees enrolled for undergraduate studies in institutions under Somaiya Trust.
- Non-teaching faculty members are sponsored for higher studies.
- Lady staff is given up to 180 days maternity leave and 7 days paternity leave for male staff members.

✓ **Industry interaction:**

Institute has formed Industry Institute Interaction Cell which works closely with Training and Placement cell, Alumni committee and E cell. The duties and responsibilities of this cell are as follows:

- To develop close links between Industry and Institute by interaction programs and to encourage industry for recruitment of students.
- To conduct Industrial Training and Industrial Visits and opportunities for in-plant training for the students and faculty.
- Organising seminars, symposiums, exhibitions and workshops on latest technological advancements, evaluation of project work with the collaborative

efforts between industrial experts and Institute departments Industrial Visit.

- Widening and effectively implementing the area of R&D and consultancy between the industries and the Institute.
- Motivate the students to become successful entrepreneurs.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

Information is shared during meetings and interactions with all stakeholders. There are two GB and LMC meetings in a year and monthly meetings of heads of institutions at trust level. Head of the Institution conducts regular meeting with HODs. Periodic meetings are held with the committee members and coordinators of all committees as per requirement. The frequency of meeting depends on the portfolio of the committee. Common meeting with faculty is held whenever required and at least twice a semester. Parents, teacher meetings are a regular feature of our Institute and a few parents are on DAB. There is regular and constant interaction with students besides meetings with Student council which enable to gauge the pulse of the students. We also have a suggestion box in the common corridor.

An activity report is submitted by departments and committees every semester. All this information is published as a college newsletter, in addition, all departments publish a newsletter every semester which is mailed to faculty and students of that department.

6.2.6 How does the management encourage and support the involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

- The management is always encouraging and supporting the involvement of faculty and staff in improving the Institutional process. Institute appoints faculty as in-charges, coordinators, members and Deans of various committees for the effective functioning of the institute.
- Institute is giving them the opportunity to organise various training programs, workshops. The operational framework of the various committees and sections are framed by the members and team leaders with the approval of Principal.
- Faculty and staff are motivated and appreciated for their best performance in the academic and institution related activities by means of Somaiya Awards held annually during our Founders day celebrations.
- Facilities like LTA, LTC, mediclaim, group insurance are provided to staff.
- Faculty and staff are motivated to complete their higher studies.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The management council has taken several resolutions for the betterment of the Institute in the last year. A summary is given in Table 6.1:

Table 6.1: Governing Body Resolutions

Domain /Area	Resolution/Point discussed	Status of implementation
Infra-Structure Development	To construct structure for removing AICTE deficiency	New academic building of 1700 sq.mtr construction is started and will be ready to use for academic purpose from June 2017 Work in progress.
	Renovation of Auditorium	The auditorium is air-conditioned and the stage is modified. Work Completed
	Restructuring of existing laboratories and classrooms as per new AICTE requirements	EXTC labs are modified and reallocated. Work in progress.
	Garden before building	Yet to be started.
	Solar street light on pathway	Work Completed
Faculty	Fulfilment of the cadre ratio of Faculty as per AICTE norms	Interviews were conducted and two faculty members have been selected for the post of Professor. No candidate was found suitable for Associate Professor. The faculties of Assistant Professor post are sufficient. Work Completed
	Modifications and Amendment in the Higher Studies Policy 2012 and inclusion of QIP Centre colleges in the first category.	Provost Dr Rajan Welukar chaired meeting with Principals of KJSIET, KJCOE and Polytechnic and it was decided to find out the list such a reputed QIP Centre and Institution. it was also decided to find out certain strategy and make arrangement in the budget Work in Progress.
	Mediclaime policy for all non-teaching staff	Implemented Work Completed
	Reimbursement of Rs. 50,000/- P.A. of the tuition fee for the wards of Class III and Class IV employee (for annual salary less than 5 Lakhs)	Implemented Work Completed
	Seed money for faculty R & D projects	Implemented Work Completed
	Full support for staff up-gradation	Implemented
Student Welfare/ Development	Improve facility for recreation	Open TT, open chess and open Gymnasium are installed Work Completed
	Formation of various active technical cells like a Robotic cell, Cybersecurity cell, IOT cell, Programming club(Infinite club), Vyom the astronomy club.	Allocation of faculty representatives and inauguration of cells are done Work Completed

Academics	Improve ICT facilities	Projectors and internet connection provided in all classrooms. Interactive smart boards installed in two classrooms. Office provided to each department. Work Completed
	Module exit survey to be done	Work in progress
	Crash course for mathematics	Will be conducted every semester
	Group activities and active learning should be encouraged	A few faculty members are implementing the same.
	GAP Lectures	FE has started implementing bridge test lectures/doubt solution lectures.

6.2.8 *Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?*

Accreditation is a step towards autonomy and after getting accreditation, the institute will make efforts for autonomy.

6.2.9 *How does the Institution ensure that grievances/complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder relationship?*

The following grievance committees/facilities exist in the Institute:

- **Internal Grievance Complaint Cell:** This committee is constituted in order to help the employees, students and parents to record their complaints and get their problems related to academics, resource allocation and personal grievances solved.
- **Women Grievance Cell/College Women Development Cell:** Institute has formed Women Grievance Committee with the aim to provide women a platform to complainant about any unwelcome behaviour and to protect women from sexual harassment.
- **Anti-ragging Committee:** Ragging complaints are handled by Anti-Ragging Committee as per AICTE guidelines. On recommendations of these committees, the issues are forwarded to the Principal for a final decision. All employees of the Institute have to cooperate to the fullest possible manner in any internal investigation conducted by these committees.
- **Effective Proctor System:** Students can discuss any issue troubling them with their proctors.
- **Psychologist:** The services of a professional counsellor are available to students. There need not be any intermediary for this and students and staff are free to take appointments on their own.
- **Parent Teacher meeting:** Feedback of parents is taken during these meetings. Also Head of Department and faculty are always available for parents.

- **Prevention of unfair means committee:** To look into unfair means and cheating issues during examinations.
- **Eradication of sexual harassment committee:** A redress mechanism for catering to complaints pertaining to sexual harassment

6.2.10 *During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?*

Mr Ashok Shelke, a non-teaching staff has contested his termination from college for unauthorised activities.

Dr.Vaishali Wadhe, assistant professor EXTC Department, has filed a case against UoM and the Institute for promotion related grievances.

Both the cases mentioned above are sub judice.

6.2.11 *Does the Institution have a mechanism for analysing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?*

Every semester, feedback of student regarding the teaching-learning process is taken. We use an online feedback system which ensures anonymity of the student. The analysis of this feedback is done and the remarks are conveyed to the teachers for improvement by the Head of the departments. Course exit survey is also filled by the student for every course in every semester and final year students complete a programme exit survey. Institute also collects feedback from alumni. These feedbacks are analysed and appropriate measures are taken to rectify any deficiencies. From the current semester, we have started system of module exit survey, for early identification of lacuna in the teaching-learning process.

6.3. Faculty Empowerment Strategies

6.3.1 *What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?*

The institution supports the teaching and non-teaching staff to enhance professional development by:

- Sponsoring for higher studies.
- Encouraging faculty to obtain membership of professional bodies.
- Recognising and rewarding talent.
- Interacting with the outside world by organising and participating in intercollegiate events.
- Motivating faculty to organise or attend state level, national level and international level conferences/seminars/workshops/symposia.
- Providing a well-equipped library
- Encouraging faculty to take up research projects.
- R&D policy has provision to provide seed money for projects and sabbatical leave if required.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

Institute organises various activities for overall development of the faculty.

- The activities are conducted on technical topics related to curriculum and emerging areas, personality development, physical and emotional wellbeing, cultural and social topics, environmental issues, and research and development.
- Every year STTPs/FDP's of emerging technology areas are conducted in the Institute.
- Technical assistants are sent for training programmes on repair and maintenance. We have also organised a technical development program (TDP) for lab assistants in association with Western Region Instrumentation Centre (WRIC).
- Classes on Google apps are conducted for both teaching and non-teaching staff for keeping them up-to-date with the latest technology.
- At the trust level, numerous programs are conducted for spiritual well-being, hobbies, emotional quotient etc.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

We follow the performance based appraisal system for faculty and nonteaching staff. Annual self-assessment is done by every faculty to find out his/her strength and weaknesses. For this, the self-appraisal form for faculty and librarian is detailed designed by the IQAC Cell of the Institute in accordance with the UGC form. The performance appraisal form consists of two parts.

- i. Self-appraisal and
- ii. Appraisal by reviewing officer.

The form is designed to enable overall evaluation of the faculty. A meeting is held with individual faculty, principal, and HOD to discuss the filled form. The faculty are appreciated for excellence in performance and also asked to improve in areas they lag. This ensures transparency in evaluation and improves accountability

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions were taken? How are they communicated to the appropriate stakeholders?

As an outcome of the review of the performance appraisal reports by the management, yearly increments are given to faculty after evaluation of their appraisal form. The Evaluation of the appraisal of the faculty is done by the head of the department. Then one to one meeting of the faculty is conducted with the head of the department and principal. Faculty are appraised about their strength and weaknesses and asked to improve in areas they are lagging. This review is also taken into consideration while recommending staff for the Somaiya awards.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Professional Development:

- The faculty has the option of opting for full salary or half salary for proceeding on study leave for PG and PhD program. They have to sign a bond accordingly. Additional Increments after completing ME/M.Tech / PhD are given to the faculty.
- Memberships of professional bodies are sponsored. They are also reimbursed up to Rs. 8000/- for attending seminar/ workshop/publication. An additional amount may be sanctioned if it is an international event.
- Non-teaching staff also receives support for higher education.
- Every year on the occasion of the founders Day the teaching and nonteaching faculties are felicitated for their exemplary contribution.

Health and Insurance Schemes

- Medical leave
- Maternity and paternity leave
- Group Mediclaim facility is available for non-teaching staff.
- Group insurance scheme
- Health check-up camps are organised for teaching and non-teaching members.
- Staff and immediate family have discounted rates for using Somaiya Hospital facilities.

Financial Benefits

- LTA facility is provided to non-teaching staff
- Reimbursement of Rs. 50,000/- P.A. of the fee forward if studying in institutions under Somaiya trust.
- The Employee’s Co-operative Credit Society Ltd.” managed by the teaching and support staff, which provides loan facility on a short term and long term basis.
- Diwali Festival advance is given for support staff.

Table 6.2 (a) and 6.2 (b) shows the details of employers availing welfare schemes.

Table 6.2. (a): Employees availing welfare schemes.

% of Employees who available the welfare schemes							
Financial Year	Total Employees	LTC (Home Town)	LTC (Maharashtra Darshan)	Group Insurance	Medical Reimbursement	ML	PL
2012-13	79	12	6	100 % Non-teaching Staff are covered	100 % Non-teaching Staff are covered	12%	11%
2013-14	74	53	2			8%	13%
2014-15	80	12	0			15%	11%
2015-16	76	19	0			6%	11%
2016-17	71	9	0			4%	12%

Table 6.2. (b): Employees Sponsored for Higher Education under welfare schemes

% of Employees who available the welfare schemes							
Financial Year	Total Employees	Sponsored for PhD	Status of Completion	Sponsored for M.E.	Status of Completion	PhD (%)	M.E. (%)
Before 2012	33 faculty have completed ME with sponsorship before 2012						
2012-13	74	1	Three faculty completed their PhD post-graduation	NIL	NIL	1.26%	Nil
2013-14	80	4		NIL		5%	Nil
2014-15	76	Nil		NIL		Nil	Nil
2015-16	71	2		NIL		2.81%	Nil

In addition employees in KJSIEIT enjoy the following facilities:

Campus level sports are being organised for teaching and non-teaching members.
 Diwali Gift as decided by establishment section.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

- The primary reason behind the high faculty retention in our Institute is that though faculty is accountable for the responsibilities assigned to them, they appreciate the freedom and independence given to them.
- The faculty is given opportunity and facility to groom their personality and technical and leadership skills.
- Monthly salary is given regularly and as per norms.
- Suitable candidates are promoted to higher posts.
- They have the opportunity to involve in industry, research and consultancy projects.
- Every year, Institute felicitates the faculty who have good publications for that academic year or have other commendable achievements like projects or research grant or excellent results to their credit.
- Faculty are encouraged to attend as well as organise development programs, seminars, workshops and orientation programs.
- Sabbatical leave is sanctioned for the faculty who are involved in industry and consultancy projects.
- We have a good library facility with latest books, journals and e-journals, etc.
- LTA facility is available.
- Medical treatment is available at concessional rates at Somaiya hospital.

6.4. Financial Management and Resource Mobilization

6.4.1. What is the institutional mechanism to monitor effective and efficient use of available financial resources?

Every department and section are asked to submit the budget for the next financial

year in early December every year. Section heads of T&P, Exam, Library, IQAC, R&D and heads of all departments plan and design the budget according to the infrastructural and maintenance requirement of laboratories, student and staff activities etc.

The budget allocations to departments are considered after allowances are made for salary and expenses for administration and maintenance like electricity, water, telephone etc. After sufficient discussion, the budget requirements are finalised and approved in GB.

6.4.2. *What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.*

Management has appointed auditors for external as well as internal audit. Both internal and external (statutory) audits are done twice a year. Physical verification of cash and fixed deposit receipts, stock registers, vouchers etc. are done. Observations are recorded and discussed with College Accounts department / Principal and clarifications obtained. A copy of the internal audit Report is made available to external auditors also for discussion and finalisation of annual accounts. The final audit report is presented to GB for approval.

6.4.3. *What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.*

Major Sources of institutional receipts/funding are:

- i. Tuition fee and development fee from admitted students
- ii. Financial support from the Somaiya trust, if required

The audited income and expenditure statement of previous four years is as given in **Table 6.3:**

Table 6.3 Income and expenditure statement

Details of Income and expenditure (amount in lakhs)					
Particulars	2012-2013	2013-2014	2014-2015	2015-16	2016-17 (unaudited)
Income	1226	1405	1460	1641	1631.53
Expenditure	1167	1282	1488	1809	1581.01

6.4.4. *Give details on the efforts made by the institution in securing additional funding and the utilisation of the same (if any).*

Additional funding is sourced through:

- i. Consultancy fund
- ii. Research grants received
- iii. Sponsorships received from professional chapters.
- iv. Loan, if needed
- v. Rent obtained by lending premises for conduction of other courses or activities to outside agencies.

The utilisation of the funds for various activities is shown in **Table 6.4:**

Table 6.4 Budget Utilisation

Details of Income and expenditure (amount in lakhs)					
		2013-2014	2014-2015	2015-2016	*2016-2017
Consultancy Fund Amount utilized	Income	0	0	0	10.35
	Expenditure	0	0	0	6.35
Research Grant Received	Income	1.94	1.72	1.78	4.3
	Expenditure	1.94	1.72	1.53	2.3
Rent From Auditorium & Class Room	Income	6.50	5.52	4.40	17.51
	Expenditure	1.62	1.38	1.10	4.38

**till date*

6.5. Internal Quality Assurance System (IQAS)

6.5.1. Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalising the quality assurance processes?

KJSIEIT has always been quality conscious. There were quality check mechanisms implemented by the Management, Principal and Heads of Departments over the years. To streamline these activities a formal IQAC was constituted consisting of the following members in February 2015. IQAC committee has a senior faculty as the Chief Coordinator and Principal, Vice Principal, HOD's and one or two senior faculty members from every department as its members. Last year, representatives of Industry, Academia, alumni and students were added to the advisory committee. This has brought in a fresh perspective to the functioning of the committee.

The quality policy of the Institute states that the Institute will strive:

- To conform to the requirements of regulatory authorities viz; All India Council for Technical Education (AICTE), Directorate of Technical Education (DTE) and UoM.
- To maintain transparency and fair practices in admission and recruitment processes.
- To ensure continuous evaluation and examination process.
- To ensure best academic ambience by providing high-end equipment, computers, learning resources and smart classrooms.
- To ensure a safe and secure environment for all stakeholders.
- To promote industry Institute interaction, research and development, placements, technical, co-curricular and extracurricular activities.

The IQAC is responsible for devising measures to improve quality in all facets of the institution and for streamlining the procedures already in existence. IQAC provides suggestions for improvement of the Institute in areas related to teaching-learning, co-curricular, environment, and extension activities of the Institute and parameters for appraisal of faculty and programmes. IQAC has organised workshops and training programs on pedagogy, accreditation etc. The IQAC has been instrumental in improving the use of ICT by faculty. IQAC also conducts an internal audit of course files and has made concrete efforts towards implementing outcome-based education, thereby supplementing the activities of the academic committee. By these initiatives, we aim to realise the objectives of our Institution viz.

- To focus on persistent improvement in processes related to teaching, learning and evaluation and to promote a culture of research and development among staff and students.
- To develop technical and interpersonal skills so that the students translate knowledge into action contributing to the benefit of the society.
- To enhance the learning experience of students by honing their skills through diverse activities to make them versatile.

More freedom coupled with accountability concerns has made our Institute initiate internal quality assurance mechanisms and institutionalise it.

b. How many decisions of the IQAC have been approved by the management/authorities for implementation and how many of them were actually implemented?

The following decisions of the IQAC have been approved and implemented by the management /authorities, such as:

- Revision of vision, the mission of institute and department, development of a formally stated quality policy.
- Adoption of many modifications in the teaching-learning process, use of Bloom's taxonomy, calculation of attainment of course outcomes, the creation of program articulation matrix of departments etc.
- Transparency in the assessment of laboratory and term-work with the use of rubrics and a framework for the continuous evaluation of students and rubrics and log books for projects.
- Creation of standard formats for many activities and making these documents easily available to everyone in the Institute through a website for IQAC.
- Standardising the filing and documentation system of departments and Institute.
- Modification of faculty appraisal form to meet requirements of UGC performance based appraisal form.
- Commencement of Institute level newsletter-"Tantradnya".
- Formation of departmental, library and IQAC advisory committees
- Organised as well as conducted training programs on pedagogy and NBA and NAAC accreditation for staff.
- Conducted training programs on Google Classrooms and ICT
- Steps towards a greener campus through green audit and composting of canteen waste.
- Improved extension activities by donations to orphanages.
-

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

The IQAC has representatives from the Alumni Association of the Institute and external experts. Their comments and suggestions are communicated to the management for further consideration. The IQAC advisory board is newly constituted and includes

1. Dr Ramesh Vasappanavara, Principal, Ramrao Adik Institute of Technology
2. Dr Prashant Shingare, Director of Renewable Energy Business at Emerson Network Power.
3. Yaksh Rawal, Integration and Yield Engineer at Global Foundries (alumni).

Dr Ramesh Vasappanavara has provided invaluable guidance with respect to NAAC documentation.

d. How do students and alumni contribute to the effective functioning of the IQAC?

The Institute has a registered Alumni Association which tends to strengthen the stakeholder relationship, participate in the decision-making process and fosters Institute development. Alumni has come forward to assist both in placement activities and training programs for students. Their services are effectively utilised in the developmental activities of the Institute and invited as judges, or to conduct seminars, internship program etc.

We obtain alumni feedback during the yearly meet and whenever they visit the campus. A program exit survey is conducted when they leave the institute. We utilise these feedback to improve the Institute.

Alumni are also members of advisory committees. One of our alumni, Mr Yaksh Rawal is a member of IQAC.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

The IQAC consists of Heads of Department and faculty from all departments. Periodic meetings are conducted to plan and coordinate the activities. All information is relayed to the departments through email and also by the constituent members. Any suggestions for improvement are conveyed to the Principal and the matter is further discussed in HOD meetings. The IQAC also has its own website open to the staff of the Institute, which can be reached through a link on the Institute website <https://sites.google.com/a/somaiya.edu/iqac-tech/home?pli=1>. The various policies and formats and circulars brought out by IQAC and information related to accreditation and teaching-learning is available on this site. So every person in the Institute has kept abreast of the activities initiated by IQAC.

6.5.2. Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalization.

Yes, the institution has an integrated framework for Quality assurance of the academic and administrative activities. The academic functions and related administrative matters have been streamlined by forming different functional

committees. Periodic review of all activities is conducted. The academic audit has led to remedial measures which will improve the teaching learning process. The modification brought to the evaluation process of faculty, by adopting a performance based appraisal system has seen an increase in the involvement of faculty in conducting various curricular, extra-curricular and extension activities.

6.5.3. *Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.*

Yes, the institution provides training to its staff for effective implementation of the quality assurance procedures. The institution always makes sure that the decisions based on the findings of the IQAC are fully adhered to. The academic, as well as the administrative working, is further smoothened by conducting time to time training sessions for the teaching and technical staff of the Institute. These training programs have helped the staff of the institution work in a better and more promising way. Non-teaching staff are willingly attending seminars or STTP's conducted on accreditation.

6.5.4. *Does the institution undertake Academic Audit or another external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?*

Yes. The Institute has a comprehensive plan to audit implementation of the various policies related to teaching-learning. At the end of the current semester, the IQAC conducts yearly audit department wise to check the fulfilment of outcomes and implementation of pedagogy. Before the commencement of the new semester, an internal academic audit by the academic committee is carried out. The internal academic committee also monitors the regular audit conducted by HODs. This year we had an external academic audit conducted by faculty from prestigious accredited Institutes. The feedback given by them has been very useful and has resulted in some policy decisions. The Institute is using the audit as a catalyst to bring about change and improve academic and non-academic domains.

6.5.5. *How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?*

The methods adopted by our Institute are aligned to the requirements of regulatory authorities like NBA, NAAC, UoM and AICTE.

6.5.6. *What are institutional mechanisms in place to continuously review the teaching-learning process? Give details of its structure, methodologies of operations and outcome?*
The following are the mechanisms in place for continuous reviewing of the teaching-learning process:

Department Advisory Board: It is constituted by the HoD, Senior Professors, Alumni, parents and Industry representative and eminent academicians. This

committee has the authority to analyse and redefine PEOs and POs when deemed fit, based on feedback from stakeholders. They give advice on the proper functioning of the department and advice on achieving the program outcomes.

IQAC: The committee recommends various policies and processes to strengthen and improve all areas. IQAC especially lays stress on improvement of teaching learning and assessment methods.

Academic committee: It is headed by Dean Academics, the committee audits every semester the process of course content delivery, the details of which is maintained in a course file by every faculty. This audit ensures that the teacher is well prepared in advance for teaching a course and plans various methods and strategies for effective teaching and evaluation. Regular monitoring of the teaching-learning process is also conducted by AC

Department Quality Circle: It is constituted by HoDs and senior professors of the department. This committee is responsible for planning and ensuring the quality of the various curricular and co-curricular activities of the department. The various training programmes in the department are planned as per their advice after assessment of program articulation matrix.

Program Assessment Committee: PAC does continuous monitoring of the teaching-learning process. They prepare monthly reports on the programme delivery and sees that lectures happen as per schedule. They also monitor the attainment of course outcomes.

6.5.7. How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

Information about Quality assurance policies and mechanisms are disseminated to the internal and external stakeholders through:

- Conduction of periodical meetings with stakeholders as parents, alumni and prospective employers.
- Conduction of orientation programs of faculty and students.
- Institute newsletters, magazines and prospectus.
- Postings on notice boards in strategic locations in the Institute.
- Faculty and staff have access to the Institute website and IQAC website where all the documents related to quality control measures and accreditation are available for viewing and downloading.
- Institute email and circulars.
- Every department maintains a hard copy of all rules, regulations and policies of the Institute and University.

6.5.8 Any other relevant information regarding Governance Leadership and Management which the college would like to include?

All relevant points are covered in replies to the above questions.



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Criterion-VII : ***INNOVATIONS AND BEST PRACTICES***



CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1. Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

Yes. We have conducted a green audit of our campus in 2016-17. We have a committee which includes an environmental engineer to conduct a green audit of the campus. As per the suggestions of the Green Audit Committee, we have initiated e-waste management, composting of canteen and garden and switching over to solar-powered street lights.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

- ✓ *Energy conservation*
- ✓ *Use of renewable energy*
- ✓ *Water harvesting*
- ✓ *Check dam construction*
- ✓ *Efforts for Carbon neutrality*
- ✓ *Plantation*
- ✓ *Hazardous waste management*
- ✓ *e-waste management*

✓ *Energy conservation*

The management and leadership of KJSIEIT are environment conscious and have taken steps for energy conservation.

- One of the primary ways to enable conservation of energy is in the design of the building. The Institute building is designed so that all classrooms have adequate ventilation and receives ample natural light. So our use of light is at a minimum and fans are needed only in summer.
- We have conducted an electrical audit of the building and installed a 70 KVAR APFC panel to cut down on electrical consumption based on their recommendation.
- We have around 600 computers in our college. All these computers have energy efficient LCD monitors.
- The new extension building is planned with the radiant cooling concept.
- We have already initiated the replacement of fluorescent lamps with LED lamps. The replacement is being done stage wise. The common areas of the Institute like auditorium and toilet block are fitted with low energy LED lamps in the first phase. Any future replacements will be using LED lamps. The majority of the present lighting is using CFL lamps instead of tube lights.
- Switching off appliances when not in use is an effective way to conserve energy. In this respect, we have planned remote control of lights using a Smartphone app, wherein lights and fans can be turned off by a supervisor who has access to the app even from home. Automation of lights in a laboratory and in the Principal's cabin has been done in the first phase as shown in figure no. 7.1b. This will be extended to cover the entire Institute in the coming months. The lights in the corridors and toilet blocks are fitted with motion sensors.

- We have installed solar panels to power the street lamps installed along the pathway from the Institute to the main road are as shown in figure no.7.1a.



fig.7.1a Solar powered Street Lamps



fig. 7.1b Automation of Lights

- Awareness creation is probably the most powerful of energy conservation techniques that can be used. By adopting the above methods, we are creating awareness for our students and employees. To this end, we have also celebrated the electricity week during which posters and banners regarding conservation of energy were displayed and a skit was conducted on the same theme. These activities increased awareness about energy saving among staff and students.

✓ *Use of renewable energy*

As a small step toward conservation of energy, we have installed solar powered street lamps along the pathway from the Institute to the main road. We have always encouraged our students to take up projects which explored the use of alternate energy sources. There have been many interesting projects which are based on renewable energy, wind energy etc.

✓ *Water harvesting*

A Ring well is built wherein all the drain water from roof tops are diverted for rainwater harvesting. Presently this water is used for gardening.

✓ *Check dam construction*

No

✓ *efforts for Carbon neutrality*

Use of energy efficient appliances and electrical audit of the building and subsequent installation of a 70 KVAR APFC panel to cut down on electricity usage and installation of solar powered street lamps are our efforts to reduce carbon footprint. Student and faculty engagement in projects which aim for energy conservation is also an effort in this direction. The remote control of Institute lighting is also a project pursued by students.

Management has taken steps towards paperless transaction wherever feasible. All circulars and communication are online and use of paper is a minimum. We have developed online systems for admission, attendance monitoring, student feedback, a biometric system for staff attendance, HR and payroll etc.

Awareness has been created so that printouts are taken on both sides of paper. All these measures coupled with the efforts for energy conservation, contribute towards a reduction in carbon footprint.

✓ ***Plantation***

We have a butterfly garden behind the Institute main building. There is also a botanical garden “Vanaspatyam” on the same campus. The Green club of our Institute conducts tree plantation drives in the campus.

✓ ***Hazardous waste management***

Chemicals and acids are stored only in the Chemistry and PCB lab. Good ventilation and adequate exhaust provision of these labs make it safe to work there. The chemical waste is neutralised before disposal.

✓ ***e-waste management***

We encourage sister institutes to utilise the equipment and computers which are generated by us as a result of an upgrade or a syllabus change. A few old but usable computers were donated to tribal school adopted by the Somaiya trust.

Electronic items which remain after the above procedure are recycled through an authorised e-waste management company.

Students are encouraged to design creative items from waste. A team of our students—have designed a few installations from e-waste to decorate Institute garden as shown in figure 7.2a and figure 7.2b.

Fig. 7.2a Crocodile from Computer Keys



fig. 7.2b Best from Waste



Figure 7.3 Waste to Wealth Project

Additional efforts:

As the direct outcome of conducting a waste audit of the campus by an environment consultant, belonging to the ECO-ROX Group, we have started the composting of garden and canteen waste. A picture of this “Waste to Wealth” project is given in figure no.7.3.

Paper waste including shredded answer sheets is sold to a licensed purchaser. Metal scrap of the workshop is sold to scrap dealers. Electric Incinerator is provided in a ladies toilet for disposal of sanitary napkins.

7.2. Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

During the last four years, many innovations were introduced in academics and administration for the smooth functioning of the college.

- *Google Classrooms:* We are using open source learning management system like Google Classroom extensively. Every faculty has a Google Classroom for their subject or is part of the common classroom for a particular class. The classroom is used to upload lecture notes, PPT handouts, assignments, videos etc. There is provision to start a discussion in the classroom. Assignments are usually conducted as MCQs and online evaluation of these assignments are done using tools like Flubaroo.
- *NPTEL Chapter:* We have been awarded AA grade for performance in NPTEL Lectures. Institute has a repository of 8TB of NPTEL lectures. 417 students have enrolled for NPTEL lectures this semester.
- *Transparency in assessment:* Rubrics are created for assessment of project work, project presentation and project report and for laboratory work. This was felt necessary to bring regularity and uniformity in the assessment process and eliminate erratic allotment of marks. Rubrics are communicated to students to make them aware about the criteria for assessment. There is a framework for the continuous evaluation of students according to the prescribed rubrics. This has created a transparency in the evaluation of term work.
- *Academic Audit:* We have been conducting an internal academic audit for two years. This year, external academic audit has been initiated and we have found it extremely useful.
- *Feedback:* Online feedback of students is collected twice a semester regarding teaching learning process. Course exit survey is conducted online through Google classroom. This semester, module exit feedback is initiated after every unit in the syllabus for timely correction in teaching strategies.
- *Industry Institute Interaction and Research Activities:* The III cell and R&D cell activities have brought in many MoU which have resulted in increased number of internships and live projects. We have collaborative projects with Somaiya Hospital and KIAAR

- *Creation of special interest groups:* We have formed groups where students and faculty sharing a common interest work together e.g. e-Yantra, SDC, Cybersecurity cell etc. Students are encouraged and provided all facilities to
- Participate in intercollegiate technical competitions. A project competition cell is constituted for this purpose. Entrepreneurship is given a boost with the help of E-Cell and RiiDL.
- *Library Services:* The Google app which is available to every member of the Somaiya group and EBSCO Discovery services has made library access extremely convenient. Global common circulation model has enabled students to borrow books from any other Somaiya library in addition to KJSIEIT library. GATE and Aptitude practice software and NPTEL lecture repository are facilities available in the library. Regular updates are provided through email regarding latest arrivals and content of journals.
- *Google Apps for Education:* The Institute has membership of GAFE and all Google services for education are available to us. Of special mention are Google Classroom and Gmail. Everyone in the Somaiya family has a *somaiya.edu* email account. This has enabled us, especially faculty and students to secure membership of educational websites and educational versions of software from multinationals for which an institutional ID is the basic requirement.
- *IQAC Website:* IQAC has created a website to streamline information dissemination. All the formats for evaluation, course attainment, logbook, performance appraisal etc. is made available on this site. The site also contains information and links related to teaching-learning and accreditation.
- *Performance based appraisal system:* The Institute has implemented the PBAS for self-evaluation of faculty which evaluates teacher's performance in teaching, research and extension activities.
- *Helping Hand fund for needy students:* In addition to the scholarships provided by the Trust and the Institute, faculty members and students contribute every year to the 'helping hand fund' to support economically backwards but academically good students. This practice was initiated in 2010 and 87 students have benefitted from this till date.
- *Automation of Electric fans and lights:* We have implemented the automation of the lights in the common areas like corridors and washrooms. The second phase which is automation of laboratories and classrooms has been initiated and is allotted to student groups as project work. This gives both students and faculty the opportunity to work on live projects.
- *RiiDL :* RiiDL Somaiya Vidyavihar is an innovation centre and accelerator in the Somaiya Campus. Somaiya Vidyavihar has 36 institutions which comprises of around 36000 students and 1700 faculty. They are trying to create focused groups who work on solving real world problems, skill development projects and creating new ventures. Some of our students have availed services of RiiDL to file for patents, and to work on projects and participate in competitions like *Maker Mela*.

7.3. Best Practices

7.3.1 Elaborate on any two best practices in the given format at page no. 98, which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

Given below are two best practices of our Institute, which has contributed a great deal in implementing our mission.

Best Practice 1

1. Title of the Practice

NPTEL USAGE

2. Goal

- To supplement the student learning in classroom
- To help faculty to refresh their knowledge.
- To improve the profile of students through IIT certifications.

3. The Context

Faculty have always been referring to NPTEL lectures for refreshing their knowledge and for preparing for newly introduced subjects (e.g. MEMS) for which they did not have any background knowledge. We have always popularised MOOCS such as Coursera and EdX to enable students to obtain additional certification. The problems we faced were the random start dates of these courses and expensive certification. So when NPTEL, which relays courses conducted by venerable faculty from IITs and IISc, initiated certification for its courses, we took advantage of the opportunity and established a local chapter. The syllabus of NPTEL courses are designed specifically for students studying engineering in India. As the curriculum is almost the same in every college here in India. The start dates coincide with the semester dates of the University.

4. The Practice

It is a partnership between KJSIEIT and NPTEL. KJSIEIT is approved as an NPTEL Local chapter from 2015. The Institute has a cache of 8 TB of NPTEL data which includes video and web courses. This is accessible to everyone in the Institute through the intranet. The course enrollment and learning is free and certification costs a nominal fee. The courses are of duration 10, 20, 30 or 40 hrs. Lessons and assignments are released every week. Also there is a discussion forum in which students can interact with the faculty member directly. At the end of the course, online exam is conducted for those who have opted for certification and the student gets a grade based on their performance in assignments and online examination.

There is a professor who acts as a single point of contact (SPOC) for IIT. We have constituted a team of faculty representatives from each department, who coordinate with NPTEL. These faculty members are responsible for publicity and enrolment. A faculty mentor of our Institute is assigned to every subject enrolled by the students. It is mandatory for the mentor to enroll for the course and attempt the assignments. Appearing for the final exam is optional for the mentor.

5. Evidence of Success

Given below is the statistics which displays the success we had with NPTEL certification.

For the period Jan-April 2016:

Students enrolled	= 60
No. of students who obtained Certification	= 60
No. of students in elite category scoring above 80%	= 11

Result K.J.S.I.E.T is declared as an **Active college** by NPTEL

For the period July-Oct 2016:

Students enrolled	=129
No. of students who obtained Certification	=108
No. of students in elite category scoring above 80%	=57

Result K.J.S.I.E.T has been awarded **AA Grade** by NPTEL.
Mrs. Jyoti Wadmare has been rated AA grade for her role as a SPOC

For the period Jan-April 2017:

Students enrolled	= 471
Exams will be held in April	

6. Problems Encountered and Resources Required

Managing a full-fledged course along with academic commitments and other activities is difficult for both faculty members and students.

Best Practice 2

1. Title of the Practice

Institute Social Responsibilities

2. Goal

- To enrich the learning experience of students.
- To instil the values of responsibility and empathy in our students.
- To use technology and expertise to address societal problems

3. The Context

Social responsibility is taken seriously by the management and leadership of KJSIEIT and we try our best to orient our students to be responsible citizens of the country. Late Shri K.J Somaiya, the founder of our group of Institutions, has received Padmabhushan for his contribution to society. We try to impart the concept of service to humanity and one of our missions is to inculcate ethical behaviour, responsibility and commitment among students. In addition to proficiency in academics, we want our students to be agents of social change and find solutions to social problems.

4. The Practice

We have many activities lined up under Institute Social Responsibility. The institute reserves fund to support many of these social and extracurricular activities.

Training for rural children:

The future of any nation lies in its children. If we are able to introduce children from rural India to the advancement in technology, it is a service we are doing to the nation. Faculty and students of our Institute under the leadership of Dr Vaishali Wadhe conduct robotic training for school children in tribal and rural areas. Students and faculty of our Institute have conducted a workshop on PC assembly, mixer grinder assembly and robotics. This started initially as “TOD-FOD-JOD” conducted in 2013-2014 with schools of Somaiya trust in the tribal and rural areas of Thane district and of Karnataka state and has now extended to underprivileged children of schools outside the trust. For example, a workshop robotics training level 1 and 2 was organised for school students from Karmaveer Bhaurao Patil Marathi and English medium school, Pratiksha Nagar, Mumbai on 14th Aug 2016. KJSIEIT holds a Robo festival cum Competition to test the proficiency of these children in the month of June /July every year since the past two years.

NSS activities:

The NSS unit of our institute was started in 2015. Mentioned below are some of the activities conducted by NSS:

a) CPR(cardio Pulmonary Resuscitation) Training

CPR training was organised by NSS and K.J Somaiya College of Nursing for students on 29th September 2015. The aim was to build the confidence and develop skills to handle cardiac emergencies.

b) Swachh Bharat Abhiyan at Chunabhatti railway station

It was a four-day program from February 29- March 3, 2016, and a small step in contributing towards an initiative taken by our honourable Prime Minister to make our country free of litter, dust and pollution. It commenced with a street play performed to enlighten others about cleanliness, water conservation and waste management. A similar event was again conducted on 2nd October 2015 at the same venue. The same has been shown in figure no. 7.4a.

c) Hamara Station Hamari Shaan

The project of Hamara station Hamari Shaan was conducted for 7 days from 2nd October -8th October 2016 at Kurla station in co-operation with Railway. The aim of the event was to make the station more attractive and beautiful. Wall painting competition was conducted among the participants to create awareness on social and environmental issues. The theme was educating the girl child. Students and staff have participated in the event. This was done in association with “*Make a Difference*” NGO. The wall painting competition at Kurla station is showcased in figure no. 7.4b.



Fig. 7.4 a Swatch Bharat Abyan at Chunabatti Station



Fig 7.4b Hamara Station Hamara Shaan at Kurla Station

d) Camps

Till date, two camps have been conducted. The first camp was conducted from 22nd – 28th December 2015 at Nareshwadi Learning centre, Dhanu which is a tribal region, to raise awareness about water harvesting, cleanliness and hygiene. Students examined and repaired old computers as well as taught the school children various topics in subjects like mathematics, Science and English of 8th, 9th and 10th standard. They organised drawing competition, chart exhibition etc. for the students.

The second NSS camp was conducted with the same objectives in addition to education and welfare of women at Towerwadi which is in Raigad district of Maharashtra state. The Camp helped to exchange ideas, share experiences through interaction with villagers. The camp was held from 26th December to 2nd January 2017. Our NSS has adopted this village for a period of three years from 2016-2019. We have also celebrated Republic Day with them on 26th January 2017. Around 20 students participated in the flag hoisting and programs which included patriotic songs, a presentation on higher education, short film etc.

e) Road Safety Campaign

A public survey on road safety was conducted from 12-15th January 2016 at Rani Laxmibai Chowk, King's Circle Sion. The objective was to engage the community and help to change the careless and unsafe behaviour of people with respect to traffic regulations. Students also conducted an awareness drive on road safety and traffic control at Khodadad Circle, Dadar. They spoke to the public and also road safety officers regarding the same. They also helped the traffic police in managing the traffic and interacted with onlookers, vehicle owners, public transport drivers.

f) Electricity Week in the Institute:

Posters and banners about energy conservation and sustainable methods were displayed in the Institute premises. An exhibition of the same was conducted. A skit was presented in the college auditorium on the theme.

Other activities conducted are Blood donation camps, NashaMukti Maharashtra Rajya Rally to create awareness on substance abuse, Voters awareness drive etc.

Activities by professional bodies and student council

The student's council along with NSS unit of KJSIEIT has arranged for donation boxes for the donation of unused or unexpired medicines, stationary items, books etc. to the underprivileged. The medicines will be donated to Manav Jyot, a charitable trust. The stationary and books will be donated to Arambh NGO.

The IET student chapter organises an awareness campaign in schools to educate them about engineering education and what to expect in different branches of engineering. They carry out this as an activity called Nurturing intelligence of curious engineers (NICE).CSI chapter has carried out a cleanliness drive at Juhu beach.

Other activities initiated by faculty and students

- Students are working on Teach for India NGO's initiative to extend education to all. The initiative focuses on surveying and analysing data constructively to identify lack of resources and to ensure their timely availability
- All the staff members of the institute have donated one day salary to the Prime Ministers Relief Fund to support the people affected by the tragedy in Uttarakhand in 2013.
- We encourage final year students to take up projects of social relevance.

Evidence of Success

Students working with NSS have reported that their experience with the tribal population of Nareshwadi has been cathartic. Same goes for students involved with all other extension activities be it tree-plantation or Robo festival for school. The active participation of students in social service activities gives them an opportunity to understand the lifestyle and standard of living of the underprivileged and their not so

well to do peers thereby instilling a feeling of empathy and courteousness.

5. Problems Encountered and Resources Required

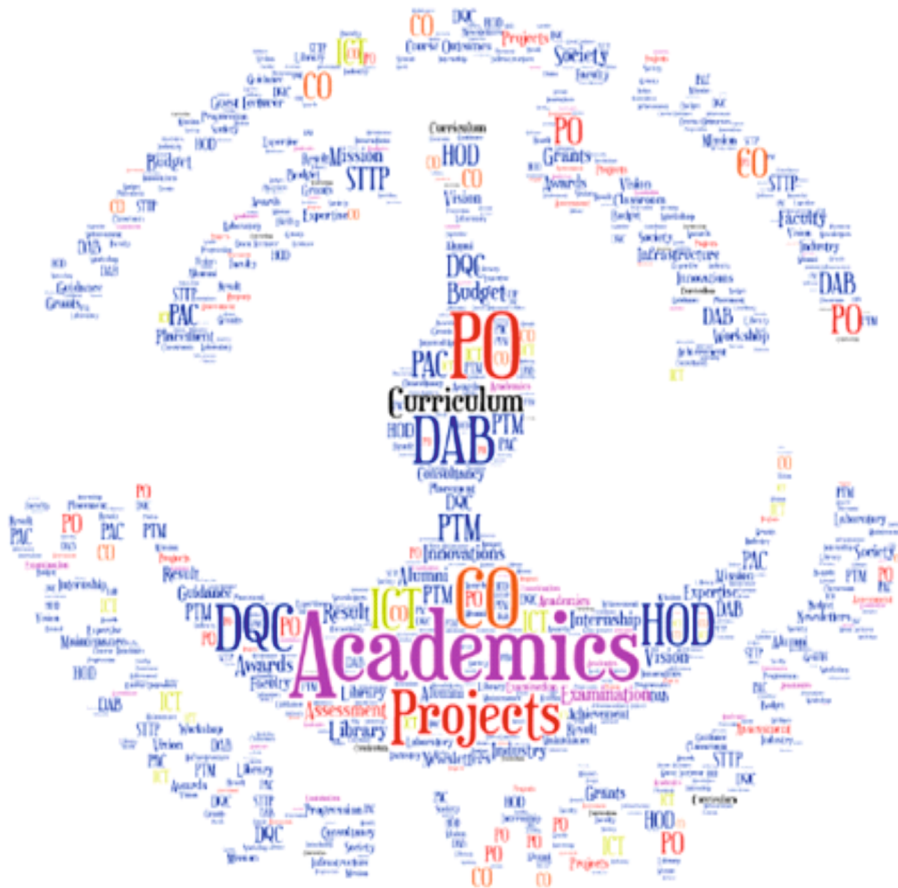
All the above activities are extra-curricular and require dedication of time and labour. Spending quality time for these activities especially during vacation is one of the hurdles observed. Motivating students to work in a rural environment (especially for NSS), without any of the comforts which they are used to, is a challenge. For participating in a few of the other events, some of the regular lectures have to be missed, which is an extra burden for the students. Some of the activities (helping hand etc) are conducted in a limited way due to the paucity of adequate funds.



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Evaluative Report Of Electronics and Telecommunication Engineering Department



Evaluative Report of

Electronics and Telecommunication Engineering Department

1. **Name of the Department:** Electronics and Telecommunication Engineering
2. **Year of Establishment:** The department was established in the academic year 2001-2002 with intake of 60 and increased to 120 in the academic year 2003-04
3. **Names of Programmes/Courses offered (UG, PG, etc.):**
UG -Bachelor of Engineering (Electronics and Telecommunication Engineering)
4. **Name of Interdisciplinary courses and the departments/units involved:**

Name of Interdisciplinary Courses				
Subject Code	Course Name	Semester	Academic Years	Supporting Department
ETC301	Applied Mathematics-III, IV	III	Every Year	Basic Science & Humanities
ETC403	Microprocessors and Peripherals	III	2016-2017, 2015-2016	Electronics Engineering
ETL403	Software Simulation Laboratory	III	2016-2017	Electronics Engineering
ETC506	Business Communication and Ethics (BCE)	V	Every Year	Basic Science & Humanities
ETC405	Signals and Systems	IV	2015-2016	Electronics Engineering

5. **Annual/semester/choice based credit system (programme wise):**

- Up to 2011-15 batches, it was Semester/ Marks Based System.
- For the 2012-16 batches, Semester/ Credit based grading system started.
- Choice based credit and grading system is introduced from Academic year 2016-17 by University of Mumbai for First year Engineering
- Currently, results are declared semester wise. The performance of learner in a semester is indicated by semester grade point index or SGPI. Promotion to higher class is based on combined result of semesters in a particular year.
- At the end of four years there will also be a final cumulative grade point index CGPI calculated which considers all credits earned by learner specified for the particular programme.

6. **Participation of the department in the courses offered by other departments:**

Course Code	Course Name	Semester	Academic Years	Offered to (Dept. Name)
FEC105	Basic Electrical & Electronics Engineering	I	Every Year	Basic Science & Humanities
FEC205	Structured Programming Approach	II	2015-2016, 2014-2015	Basic Science & Humanities

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

The institute is affiliated to University of Mumbai and there is no provision in Mumbai University to run such courses. However, students of the department are enrolled for online courses conducted through NPTEL (National Programme on Technology Enhanced Learning) which is an initiative by the seven Indian Institutes of Technology.

8. Details of courses/programmes discontinued (if any) with reasons:

Nil

9. Number of Teaching posts:

Designation	Sanctioned	Filled
Professors	02	01
Associate Professors	06	00*
Assistant Professors	16	23

*For 01 Faculty CAS (Career Advancement Scheme) promotion has to be implemented.

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./Ph.D./M.Phil.etc.):

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. Jayashree Khanapuri	Ph.D.	Professor and HOD	Electrical and Electronics Engineering Sciences	20	NIL
2	Ms. Namrata Ansari	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	18	NA
3	Dr. Vaishali Wadhe	Ph.D.	Assistant Professor	Electronics Engineering	17	NIL
4	Mrs. Tilottama Dhake	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	14	NA
5	Ms. Rashmi Adatkar	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	10	NA
6	Mr. Kiran Rathod	M.E.	Assistant Professor	Digital Electronics Engineering	15	NA
7	Mrs. Pradnya Kamble	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	13	NA

8	Mr. Prashant Upadhyay	M.E.	Assistant Professor	Electronics Engineering	11	NA
9	Mr. Martand Jha	M.E.	Assistant Professor	Electronics Engineering	10	NA
10	Mr. Sandeep Mishra	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	11	NA
11	Mrs. Pranali Hatode	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	11	NA
12	Mr. Amit Kukreja	M.E.	Assistant Professor	Computer Engineering	11	NA
13	Mr. Sunil Patil	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	14	NA
14	Mr. Harshawardhan Ahire	M.E.	Assistant Professor	Electronics Engineering	17	NA
15	Ms. Rupali Satpute	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	10	NA
16	Ms. Rupali Advirkar	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	9	NA
17	Mrs. Priya Hankare	M.E.	Assistant Professor	Electronics Engineering	12	NA
18	Mrs. Swati Shinde	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	18	NA
19	Mr. Sagar Mhatre	M. Tech.	Assistant Professor	Electronics Engineering	6	NA
20	Mrs. Sheetal Jagtap	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	11	NA
21	Mrs. Medha Asurlekar	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	12	NA
22	Ms. Vidya Sagvekar	M.E.	Assistant Professor	Electronics and Telecommunication Engineering	10	NA
23	Ms. Arati Sahitya	M.E.	Assistant Professor	Information Technology	2	NA
24	Ms. Sayali Salkade	M.E.	Assistant Professor	Computer Engineering	6.3	NA

Following faculty are pursuing Ph.D.:

1. Mrs. Namrata Ansari in (Electronics)
2. Mr. Kiran Rathod in (Electronics & Telecommunication Engineering)

11. List of senior visiting faculty:

Nil

Institute has appointed qualified and experienced faculty as per the norms of AICTE and are approved by University of Mumbai.

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

NA

13. Student-Teacher Ratio (programme wise):

Programme	Student-Teacher Ratio
UG	15 :1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Sr. No.	Type of Staff	Filled
1	Technical Assistant	05
2	Laboratory Assistant	02
3	Attendant	02
4	Peon	02

15. Qualifications of teaching faculty with D.Sc./D.Lit./Ph.D./M.Phil./PG:

Qualification	Total
Ph. D.	02
M.E. / M. Tech.	22

16. Number of faculty with on-going projects from a)National b)International funding agencies and grants received:

Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Name of Faculty (Principal Investigator)	Name of Funding Agency	Title of the Project	Amount Received (In Rupees)
2016-2017			
Mrs. Pradnya Kamble	University of Mumbai	Wireless Health Monitoring System using personal area network	25000
Dr. Vaishali Wadhe		Tree Climbing coconut plucker	35000

Mrs. Priya Hankare		Processing of infrared Thermal Images for early breast cancer disease detection using colour image analysis	30000
Ms. Rupali Satpute		Brain wave controlled wheel chair	20000
Mr. Kiran Rathod		Design and development of Rectangular slot and annular ring slot wearable broad band circularly polarized textile antenna for medical application	25000
Prof. Jayashree Khanapuri		A Computer Vision based Automatic Gate Control for Vehicle recognition	31000
Mr. Sagar Mhatre		Development of FPGA based controller area network sniffer for prosthetic limbs	25000
2015-2016			
Dr. Milind Nemade	University of Mumbai	SPS and Ultrasonic Trans receiver enabled Wearable Device with Heart Rate Monitor for Sailors in Marine Environment	50000
Mr. Harshawardhan Ahire	University of Mumbai	Brain Tumour Detection using different neural networks	40000
2014-2015			
Mrs. Tilottama Dhake	University of Mumbai	Performance major of system level simulation based LTE and Wi-max 4G cellular technology	25000
Mr. Sandeep Mishra		Effective path planning for multi robot system using hovering eye	40000
2013-2014			
Mr. Kiran Rathod		Design of Micro strip array Antenna for Bandwidth Enhancement.	35000
Mrs. Swati Shinde	University of Mumbai	Fabric Defect Detection	35000
Mrs Priya Hankare		Fast Detection of Circumscribed mass using Radial Basis Function Neural Network	40000

18. Research Centre/facility recognized by the University

Nil

19. Publications:

a) Publication per faculty: (2013-14 to 2016-17)

Sr. No.	Name of Faculty	Total(Conference/ Journal)
		National/ International
1.	Dr. Jayashree Khanapuri	09
2.	Mrs. Namrata Ansari	04
3.	Dr. Vaishali Wadhe	06
4.	Mrs. Tilottama Dhake	03
5.	Ms. Rashmi Adatkar	03
6.	Mr. Kiran Rathod	10
7.	Mrs. Pradnya Kamble	06
8.	Mr. Martand Jha	02
9.	Mr. Sandeep Mishra	03
10.	Mr. Amit Kukreja	01
11.	Mr. Sunil Patil	02
12.	Mr. Harshawardhan Ahire	03
13.	Ms. Rupali Satpute	04
14.	Ms. Rupali Advirkar	04
15.	Mrs. Priya Hankare	08
16.	Mrs. Swati Shinde	07
17.	Dr. Amol Deshpande	03
18.	Mr. Sagar Mhatre	01
19.	Ms. Arati Sahitya	02

** Number of papers published in peer reviewed journals (national/International) by faculty and students: (Academic year 2013- 2014 to 2015-2016)*

Sr. No.	Name of Faculty	Total(Journal/Conference)
		National/International
1.	Dr. Jayashree Khanapuri	2
2.	Mrs. Namrata Ansari	4
3.	Mrs. Tilottama Dhake	4
4.	Mrs. Rashmi Adatkar	3
5.	Mr. Kiran Rathod	6
6.	Mrs. Pradnya Kamble	06
7.	Mr. Martand Jha	2
8.	Mr.Sandeep Mishra	03
9.	Mrs. Pranali Hatode	03
10.	Mr. Amit Kukreja	1
11.	Mr. Sunil Patil	1
12.	Mr. Harshawardhan Ahire	1

13.	Ms. Rupali Satpute	2
14.	Ms. Rupali Advirkar	4
15.	Mrs. Priya Hankare	5
16.	Mrs. Swati Shinde	6
17.	Dr. Amol Deshpande	1
18.	Mr. Sagar Mhatre	1

*** Number of publications listed in International Database (For Eg. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): Nil**

*** Monographs: Nil**

*** Chapter in Books:01**

Year	Name	Chapter	Book	Publisher
2013-14	Dr. Jayashree Khanapuri	Efficient Color Image Retrieval with Selective Relevance Feedback	Lecture Notes in Electrical Engineering (Chapter 41) Page 333-341	Springer India 2013

*** Books Edited: Nil**

*** Books with ISBN/ISSN numbers with details of publishers:01**

Year	Name	Book	ISBN No.	Publisher
2014-15	Dr. Vaishali Wadhe	Cloud Computing	ISBN 978-3-639-71565-1	Scholar's Press OmniScriptum GmbH & Co. KG, Heinrich-Böcking-Str. 6-8, 66121, Saarbrücken, Germany.
2005	Mrs. Namrata Ansari	Basic Electrical and Electronics Engineering	--	Vipul Publication

*** Citation Index: 1 – 7(No. of Citations)**

*** SNIP: Nil**

*** SJR: Nil**

*** Impact factor: 0.085 - 10.512**

*** h-index:0-1**

20. Areas of consultancy and income generated:

Nil

21. Faculty as members in:

a) National committees

Indian Society of Technical Education (ISTE) – 12

Institution of Engineers (India) (IEI) – 01

Institution of Electronics and Telecommunication Engineers (IETE) - 01

b) International Committees

The Institution of Engineering & Technology (IET)-19

Institute of Electrical and Electronics Engineers (IEEE) - 02

c) Editorial Boards: Nil

d) University Level:

Following Faculty are members of Syllabus Revision Committee of UoM for Electronics & Telecommunication Engineering branch:

Mrs. Namrata Ansari

Mr. Martand Jha

Mr. Amit Kukreja

22. Student projects:

a) Percentage of students who have done in-house projects including interdepartmental/programme

Academic	No. of Students on Roll	No. of Students doing	Percentage of students
2015-16	128	124	94.11
2014-15	152	152	100
2013-14	141	141	100
2012-13	154	154	100

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

Academic	No. of Students on Roll	No. of Students doing	Percentage of students
2015-16	128	07	5.46
2014-15	152	-	0
2013-14	141	-	0
2012-13	154	-	0

23. Awards/Recognitions received by faculty and students:

By Faculty:

Sr. No.	Academic Year	Name of Faculty	Awards/ Recognitions/ Appreciation
1.	2016-17	Mr. Kiran Rathod	Won 2nd Prize at 12th International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS) at Jodhpur, Rajasthan, India 15th – 17th February 2017.
2.	2014-15	Dr. Vaishali Wadhe	Chairman’s award for Outstanding Performance-2014 by Somaiya Trust
3.	2016-17	Ms. Aarti Sahiyta	Filled Permanent Complete Patent on “Cluster Based Cognitive Storage” Application No:201721009726
4.	2016-17 and 2014-15	Mr. Prashant Upadhyay	Mentor for Team Robocon The team Scored 12 th position in Robocon 2015 (National level Robotics Competition) and Scored 9 th position in Robocon 2017

Awards/Recognitions received by Students:

Academic Year : 2016-17

Sr. No	Name of Activity\ Topic	Name of Participant	Co-ordinated By (Venue/Association with)	Prize	Class
Technical Competitions					
1	Robocon 2017 (National level Robotics competition)	Mr. Pradipkumar Chaudhary Mr.Mangesh Choudhari Mr.Aditya Chaudhari Mr.Digant Pandya Mr. RoankPanchal	Robocon India in association with Doordarshan at MIT, Pune 2 nd -4 th March 2017	9 th Position	BE TE
2	Oscillation 2017	Mr. ThosarSushrut Mr. Amad Singh Mr. Atul Sharma Mr. ShubhamWaghela Mr.MayurAnopsinh	Poster Presentation 27 th Feb 2017	1 st	TE
		Mr. Hunge Yash Mr. Jotania Vaibhav Mr. Malpara Mohammed Mr. Mehta Parth		2 nd	
3	Research on Sparkling Water	Mr. Jay Bhosale	Germany, Schulzentrum, Rubekamp 26 September-12 October2016	Invited Guest	TE

Cultural					
1	Violin Examination	Mr. Gavin Wagh	Akhil Bharatiya Gandharv Mahavidyalay Mandal, Mumbai June 2016	First class	BE
2	Essay Contest	Mr. Snehil Jain	K. J. Somaiya Centre for Studies in Jainism 7 April 2016	3 rd prize	TE

Academic Year : 2015-16

Sr. No	Name of Activity\ Topic	Name of Participant	Co-ordinated By (Venue/ Association with)	Prize	Class
Project Competition					
1	Robocon 2015 (National level Robotics competition)	Mr. Prasad Yawalkar Mr. Ashrit Taduri Mr. Saurabh Manjarekar Mr. Pratik Kandalgaonkar Mr. Chinmay Nemade Ms. Raveena Jagtap	Robocon India 2 nd - 4 th March 2015	12 th Position	BE SE
2	ROBOFEST – 2015	Mr. Hardik Rathod	KJSIEIT 2015	1 st Position	TE
Technical Paper Presentation					
1	Technical Paper presentation	Mr. Chinmay Nemade	Renaissance, KJSIEIT 10 Sep, 2015	1 st prize	BE
2	Technical Paper presentation	Ms. Kesha Shah	E –Cell KJSIEIT 2015	1 st prize	BE
Cultural					
1	Street Play	Mr. Dawal Bhanushali Mr. Mayur Bhavsar Mr. Hardik Rathod	Springfest 16 IIT, Kharagpur	2 nd Prize	BE
2	Street play	Ms. Kajal Panchal Mr. Aditya Panchal Mr. Hardik Rathod	MALHAR 15	3 rd prize	BE
3	Inter college singing	Mr. Dharmin Mehta	KJSIEIT Surge 2015	2 nd prize	TE
4	Inter college singing	Mr. Dharmin Mehta	Vasantdada Patil College of Engineering	2 nd prize	TE
5	Street play, 'AkhirMard Jo Thehare'	Mr. Hardik Rathod Mr. Chintan Ratanghayra	Abhinay Katta 2015	Letter of appreciation	TE

Sports					
1	National level Badminton Tournament (Doubles)	Ms. Mousami Sabnis	Skream-2015 KJSCO	1 st prize	BE
2	National level Badminton (Singles)	Ms. Mousami Sabnis	Skream-2015 KJSCO	2 nd prize	BE
3	Inter college Volleyball Tournament	Mr. Akash Malusare	Thakur College of Engineering	Winner	BE
4	Inter college Volleyball Tournament	Mr. Akash Malusare	Score2K15 KJSIEIT	Winner	BE
5	Inter college Cricket Tournament	Mr. Jeet Kothari	Score2K15 KJSIEIT	Winner	BE

Academic Year : 2014-15

Sr. No	Name of Activity\ Topic	Name of Participant	Co-ordinated By (Venue/ Association with)	Prize	Class
1	University Ranker	Ms .Priya Singh	University of Mumbai June 2015	11 th Rank (Secured 79.10%)	BE
2	Working Model Exhibition/ competition	Mr. Keval Kava Mr. Nikhil Divate Ms. Namita Gawande Mr. Yash Gandhi	Prakalp, 2014 KJCOE	2 nd prize	BE
3	Technical Paper Presentation	Ms. Dimpal Sutar Mr. Dhiraj Nagla Mr. Pranesh Yadav Mr. Laxman Thakur	Spectra, 2015 SPCE, Andheri	1 st prize	BE
4	Poster Presentation	Mr. Dharmesh Koria	KJSIEIT 2014	2 nd Rank	TE

24. List of eminent academicians and scientists/visitors to the department:

Date	Name of Person	Particulars
25 November 2016	Dr. Anil Patil Director, BCUD University of Mumbai	Chief Guest STTP on Wavelet and Machine Learning
15 – 25 November 2016	Dr. Manesh Kokare Associate Professor SGGSIET, Vishnupuri, Nanded	Invited Speaker, STTP on Wavelet and Machine Learning
November 2016	Dr. Samyak Mulcutkar Consultant, Aditya Jyot Hospital, Matunga	External Examiner BE Project Evaluation

22 September 2016	Dr .Shaila Subbaraman Professor, Walchand College of Engineering, Sangli	External Academic Auditor Department Academic auditing
July 2016	Mr. Prateek Gupta CEO & Founder, Innovians Technologies, Delhi	Expert Speaker Innovians Technologies, Delhi
1 July 2016	Dr. B. L. Jadhav Director, WRIC, University of Mumbai	Chief Guest Technical Development Program “ Repair and Maintenance of Laboratory Equipments”
17 November 2015	Dr. Pratapsinh Desai Chairman, ISTE	Chief Guest STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations”
17 November 2015	Dr. G. S. Tuteja, Chairman, IET, Mumbai Local Network	Guest of Honour STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
17 November 2015	Dr. Girish Kumar Professor, Electrical Engineering, IITB Chairman, Wilcom Technologies Pvt. Ltd.	Expert Speaker STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
17 – 21 November 2015	Dr. B. K. Lande Director, PVPPCOE, Sion	Expert Speaker STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
17 – 21 November 2015	Dr. Sibi Raj Pillai Professor, IITB	Expert Speaker STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
21 November 2015	Dr. Munir Sayyad General Manager, Jio, Reliance	Expert Speaker STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
17 – 21 November 2015	Dr. Kushal Tuckley Chairman, Director (R&D), AVG Systems Pvt.. Ltd.	Expert Speaker STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
29 October 2015	Mr. Sandeep Natekar Chief Sales Manager	Expert Talk on Spectrum Analysis of RFMA

22 September 2015	Dr. Imdad Rizvi Department of EXTC Terna Engineering College,	Expert Talk on Practical Approach for Random Signal Analysis and Integrated Circuit
30 June – 7 July 2015	Mr. Mahesh Mhatre Editor in Chief, IBN Lokmat News Channel	Summer Internship Program on QUADCOPTER-2015
June 2015	Mr. Ritesh Shah Founder and Owner ARK Technologies Pvt. Ltd.	Summer Internship Program on Raspberry Pi with Linux-2015
18 May 2014	Mr. Sanoop Thomas Head, Threat Intelligence Unit, Vikhroli	Expert Talk STTP on The New Generation 4G and 5G Innovations, Research, Scope and Limitations
17 May 2014	Dr. Saurabh Mehta Associate Professor Telecommunication Department, V.I.T.	Expert Talk on Mobile & data communications services

25. Seminars/Conferences/Workshops organized & the source of funding

a) National b) International

a) National

Sr. No.	Year	Date	Name of Workshop / Seminar	Source of funding
1.	2016-17	15 - 25 November, 2016	ISTE approved Two Week Short Term Training Program on "Wavelet and Machine Learning "	Parent Organization and through Registration of external Participants under Indian Society for Technical Education
2.		September 2016	NICE-Nurturing Intelligence for Curious Engineers 2016	Institution of Engineering and Technology, India
3.		27 June – 2 July 2016	Technical Development Program on “Repair and Maintenance of Laboratory Electronic Equipments”	Parent Organization and through Registration of external Participants under Western Region Instrumentation Centre (WRIC)
4.		26-29 April 2016	One week training cum Workshop on "NAAC - Process Criteria and Audit"	Parent Organization
5.	2015-16	8 January 2016	One day workshop on “NPTEL Awareness”	IIT, Bombay
6.		17– 21 November 2015	ISTE approved Short Term Training Program on “The New Generation 4G and 5G Innovations, Research, Scope and Limitations”	Parent Organization and through Registration of external Participants under Indian Society for Technical Education
7.		5 October 2015	National Symposium on “Evangelizing Internet of Things (IOT)”	Parent Organization, Under Institution of Engineering and Technology, Mumbai LN

8.	2014-15	2015	NICE-Nurturing Intelligence for Curious Engineers 2015	Institution of Engineering and Technology, India
9.		30 June - 9 July 2014	National Level summer internship on “ Robotics and Embedded System” under IEEE	Parent Organization under Institute of Electrical and Electronics Engineers
10.	2013-14	2014	NICE-Nurturing Intelligence for Curious Engineers 2014	Institution of Engineering and Technology, India

b) International

Sr. No.	Year	Date	Name of Workshop / Seminar	Source of funding
1.	2016-17	11 March 2017	International competition “Present around the World” (PATW-2016-2017)	Institution of Engineering and Technology, India
2.	2015-16	2016	International competition “Present around the World” (PATW-2015-2016)	Institution of Engineering and Technology, India
3.	2014-15	2015	International competition “Present around the World” (PATW-2014-2015)	Institution of Engineering and Technology, India
4.	2013-14	2014	International competition “Present around the World” (PATW-2013-2014)	Institution of Engineering and Technology, India

26. Student profile programme/ course wise:

Name of the Course/ programme	Type	Applica tions received	Selected/ Admitted				Total Selected (Admitt ed)	Enrolled		Pass %
			OPEN	S C	N T	OBC		*M	*F	
EXTC 2016-17	(Centralized Admission Process) +J&K +TFWS +Minority +Transfer	NA	OPEN	S C	N T	OBC	82	87	21	--
		67	5	1	9					
	Against CAP	199	17				17			
	Against CAP Minority	76	9				9			
EXTC 2015-16	(Centralized Admission Process) + J&K +TFWS	NA	OPEN	S C	N T	OBC	39	90	25	96.09 Admitte d in 2011-12
		29	3	0	7					
	Institute Level	460	24				24			
	Minority	276	34				34			
	Against CAP	395	13				13			
	Against Minority		0				0			

EXTC 2014-15	(Centralized Admission Process) + J&K +TFWS	NA	OPEN	S C	N T	OBC	32	94	17	91.36 Admitted in 2010-11
	Institute Level	404	27	2	1	2	22			
	Minority	535				52	52			
	Against CAP	217				5	5			
	Against Minority					0	0			
EXTC 2013-14	(Centralized Admission Process) + J&K +TFWS	NA	OPEN	S C	N T	OBC	33	100	19	98.56 Admitted in 2009-10
	Institute Level	310	28	0	1	4	23			
	Minority	487				0	55			
	Against CAP	264				0	7			
	Against Minority					0	0			

*M=Male *F=Female

BE Results:

27. Diversity of Students

Name of the Course/programme UG -Bachelor of Electronics and Telecommunication Engineering	%of students from the same state	%of students from other States	%of students from abroad
2016-17	95.37	4.63	NA
2015-16	92.72	7.27	NA
2014-15	85.58	5.42	NA
2013-14	97.45	2.54	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

Competitive Exam	No. of Students Qualified (2013-2016)
GATE	09
GRE	47
TOEFL	40
IELTS	03
CAT/CET	01

29. Student progression

Student progression	Against % enrolled				
	2016-17	2015-16	2014-15	2013-14	2012-13
UG to PG	--	3.12	8.55	9.93	18.83
PG to M.Phil.	--	NA			
PG to Ph.D.	--	NA			
Ph.D. to Post-Doctoral	--	NA			
Employed	30.20 (till date)	53.13	38.82	31.21	20.78
•Campus selection					
•Other than campus recruitment	--	9.38	25.66	31.21	56.49
Entrepreneurship/ Self-employment	--	0.78	1.97	2.13	0.65

30. Details of Infrastructural Facilities:

Sr. No.	Infrastructural Facilities	Particulars	Count
1.	Classrooms with ICT	Classrooms	05
		Tutorial rooms	01
2.	Laboratories	Total	09

a) Library:

Department library is situated in Room No. 611

Sr. No.	Details	Quantity
1	Text Books	189
2	Project Reports	149
3	Synopsis of Mini Project Reports	193
4	Question Papers with Solution Files	For all subjects

b) Internet facilities for staff and students:

- Institute has 56Mbps leased high speed internet line provided by Vodafone.
- Department has 24x7 internet and intranet facility to faculty, staff and students.
- All laboratories in the department equipped with computers and internet. Faculties, staff and students can access internet 24x7 in the laboratories.
- All classrooms in the department equipped with internet connection.
- HOD provided with separate rooms equipped with white boards, computer with internet for discussion and counselling.

- Institute provided exclusive Somaiya Vidyavihar(SVV) mail id to all faculties, staff and students
- Department has online/mobile lectures and practical attendance filling and monitoring facility for faculty and staff.
- Institute has provided online filling of leave applications, outdoors /vacation form, getting salary statement and TDS calculations through SENSYS Software ESS login to all faculties and staff.

c) Class rooms with ICT facility:

Teaching aids available with the department are

- No. of LCD Projector: 06
- No. of Laptops: 06
- No. of classrooms with internet connection: 04
- No. of digital boards in institute: 02

d) Laboratories:

Sr. No.	Laboratory Name	Room No.
1.	Analog and Digital Communication	404,405
2.	Radio Frequency Communication	406
3.	Printed Circuit Board	601, 602
4.	Basic Electronics	603
5.	Software Simulation	604
6.	Advanced Communication and Signal Processing	605
7.	Microwave and Satellite Communication	606
8.	Microprocessor and Microcontroller	607,608
9.	Networking and Project	609,610

31. Number of students receiving financial assistance from college, university, government or other agencies

Sr. No	Scholarship	No. of Students				
		2016-17	2015-16	2014-15	2013-14	2012-13
1	Minority State Govt.	-	21	12	22	23
2	SC/VJNT/OBC/SBC	-	16	18	41	36
3	EBC	-	14	11	25	27

4	ST	-	1	1	3	2
5	TATA Scholarship	5	4	-	-	-
6	Teacher Ward Scholarship	-	-	1	1	1
7	Institute Merit Cum Means	-	1	1	-	-
8	Minority Central Govt.	-	-	3	-	-
9	Somaiya Scholarship for Girls	-	1	-	-	-
10	University EBC	-	-	1	-	-
11	KJSIEIT Helping Hand	1	1	7	7	4
Total		5	58	47	90	89

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts

Workshops organized by the department:

Sr. No.	Year	Date	Name of Workshop / Seminar	Name of Expert
1.	2016-17	5 October 2016	OCN: splices, connector, losses and demonstration of OTDR	Mr. Nilesh Nikam CEO, AdityaInfotech
2.		16 September 2016	One day Workshop on “E-YANTRA Fire Bird Five Robot, E-Yantra ,KJSIEIT	Mr. Prashant Upadhyay and Mr. Amit Kukreja Assistant Professor, EXTC, KJSIEIT
3.		27-28 August 2016	Two Days Hands on Workshop on Matlab, IETE, ISTE	Mr. Nilesh Takare Product Specialist, Mr. Prem Kumar Application Engineer, at Capricot, Pune.
4.		6- 7 August 2016	Two day workshop on Smart City Through Embedded and IoT Applications” IEEE	Mr. Prateek Gupta CEO & Founder, Innovians Technologies, Delhi
5.		16 July, 2016	Basic Electronic components and Use of electronic lab instruments	Ms. Punam Alway, Mrs. Harshala Patil, Mrs. Sunita Tikekar, Ms. Chaitra Wagh, Mr. Yuvraj Chavan, Mr. Kishor Mugale Tech. Assistants, EXTC, KJSIEIT
6.		7-8 July, 2016	Smart City Through Embedded and IoT Applications” IEEE	Mr. Prateek Gupta CEO & Founder, Innovians Technologies, Delhi

7.	2015-16	6-7 April 2016	Level - II Wireless Robotics, Nareshwadi	Mr. Mayur Avhad Trainer, ARK Techno Solutions	
8.		2 April 2016	Train Management System,	Western Region, Mumbai Central, Indian Railways	
9.		6 October, 2015	Chatur Ideas for upcoming Entrepreneurs and start ups E-cell KJSIEIT	Ms. Lavanya Patil CEO, Chatur Ideas Pvt. Ltd.	
10.		14 September, 2015	ROBOTICS Workshop and Celebration of Engineer's day	Mr. Mayur Gawde, Mr. Ronak Joshi, Mr. Dharmesh Korla, Mr. Neel Lad BE EXTC, KJSIEIT	
11.		4 th August, 2015	Seminar & Demonstration on 3D Printer ARK Techno Solutions	Mr. Mahesh Mhatre Editor in Chief, IBN Lokmat News Channel	
12.		7-15 July 2015	Workshop on Raspberry Pi ARK Techno Solutions and E Cell IIT, Kharagpur	Mr. Mayur Avhad Trainer, ARK Techno Solutions	
13.		6-12 July, 2015	National Summer Internship Program on "Arduino Development" Rever Tecnology Pvt. Ltd, IETE KJSIEIT & Cognizance-IIT Roorkee	Mr. Ritesh Shah Founder and Owner ARK Technologies Pvt. Ltd.	
14.		30 June – 7 July 2015	Summer Internship Programs cum workshop on Quadcopter IEEE & ARK Techno solutions and E Cell IIT, Kharagpur	Mr. Mayur Avhad Trainer, ARK Techno Solutions	
15.		2014-15	20 March 2015	Workshop on " Fiber Optic Connectors and Splices"	Mr. Nilesh Nikam Mr. Ritesh Phoujdar, Aditya Telesystems Pvt. Ltd.
16.			3 February 2015	Guest lecture on "Light runner and LightSim	Mr. Keerthi Prasad Fiber Optika Technologies Pvt. Ltd.
17.			11 September, 2014	Robotics and Instrumentation ARK Techno Solutions	Mr. Mayur Avhad Trainer, ARK Techno Solutions
18.		2013-14	18 January 2014	HAM Radio	Mr. Jayesh Banatawala, Mr. Saurabh Mehta, MR. Suhas Naringrekar Founder, Mumbai Amateur Radio Institute, Mumbai
19.			2-3 April 2014	Solar Clan, IITB, ENELEK Power Pvt. Ltd.	Mr. Manpreet Sodhi ENELEK Power Pvt. Ltd.

Special/Guest Lectures organized by the department:

Sr. No.	Year	Date	Topic	Name of Guest faculty
1.	2016-17	15 March 2017	Guest Lecture on "Frequency Response of Amplifiers"	Prof. Prashant Khaedkar Shah & Anchor College of Engineering, Mumbai

2.		8 March 2017	Guest Lecture on “Introduction to Embedded Systems and IoT”	Dr. Johnathan Joshi CEO, Eduvance Pvt. Ltd.
3.		22 February 2017	Guest lecture on “Writing and Publishing a Technical paper in Engineering”	Dr. Archana Bhise Professor, NMIMS, Mumbai
4.		27 January 2017	Guest Lecture on “Positive Thinking”	Mr. Badal Kotak, KJSIEIT
5.		14 July , 2016	Job Opportunities in Industry	Mr. Ekagar Singh Hara, Alumni ,EXTC, KJSIEIT
6.		6 October,2016	Defence Product And Product Development	Mr. G. D. Powar, L&T Powai
7.		14-16, September,2016	Awareness About “Networking And Cyber Security”	Mr. Ajitesh Gadwe Mr. Moin Masurkar
8.		20 July,2016	Basics and Industrial Applications of Network Analysis and Digital Electronics	Prof. Vaibhav Tarate
9.		5 July, 2016	Image Processing Applications in Diabetic Retinopathy	Dr. SamyakMulkutkar Aditya Jyot Eye Hospital, Dadar
10.		28 July, 2016	Placement Preparations	Mr. Ketan Gaikwad
11.		23 August,2016	Grooming for Placement	Ms. Apurva Desai, Ms. Priyanka Patil, Ms. Deepthy Nair, Mr. Meet Parikh
12.		4 October,2016	Random Signal Analysis	Mr. Vihang Patil, Alumni, EXTC-KJSIEIT
13.		4 October,2016	Basics of Raspberry Pi	Dr. Joanne Gomes, Associate Professor, SFIT, Mumbai
1.	2015-16	30 September, 2015	TRAI Guidelines and Regulations	Mr. Pushpendra Parikh
2.		28 March,2016	Computational Electromagnetics : A practical approach”	Dr. Sachin Umbarkar
3.		29 October, 2015	Spectrum Analysis of RFMA	Mr. Sandeep Natekar Director, Systech Enterprise
4.		4 September, 2015	Seminar & Free Demo on 3D printer	Expert from ARK
5.		22 September, 2015	Practical approach for Random Signal Analysis & Integrated Circuit”	Mr. Vaibhav Avandekar Research Engineer, A3 Remote Systems, IITB Company
6.		3 February, 2016	Satellite Communication and Network	Mr. Sunil Puranik
7.		30 March 2016	Recent Trends and Opportunity in Embedded Systems	Mr. Ashok Jagatia, Director, Acevin Solutions
8.		5 April 2016	Technical Paper Writing	Dr. Pooja Raundale, Associate Professor, SPIT, Mumbai
9.		7 March, 2016	Adobe Photo Shop	Ms. Swapnali Jomraj National Head Sales , Veloces Consulting Services Pvt. Ltd.
10.		6 October, 2015	Chatur Ideas for upcoming Entrepreneurs and start ups	Ms. Lavanya Patil CEO,Chatur Ideas Pvt. Ltd

11		28 March,2016	Computational Electromagnetics : A practical approach”	Dr. Sachin Umbarkar
1		16 March, 2015	Generation of Mobile Networks and its Evolution to 4G	Mr. Pradeep Kondayoor Dy. Manager (Telecom) MTNL, Mumbai
2	2014-15	6 August 2014	Overseas education Opportunities	Expert from overseas education
3.		12 August , 2014	PCB Designing	Mrs. Namrata Gharat Faculty, EXTC KJSIEIT
4.		12 September, 2014	LaTeX	Mr. Harshawardhan Ahire Faculty, EXTC KJSIEIT
5.		7 August 2014	Microcontroller and Applications	Mr. Shirish Joshi, ADM Solutions, Mumbai
6.		12 September, 2014	Java / Electronic Components	Dr. Vaishali Wadhe Faculty, EXTC KJSIEIT
7.		12 September 2014	Web Designing	Mrs. Kavita Bathe, Mrs. Shyamal Virnodkar Faculty, KJSIEIT
8.		11 August 2014	Spectrum Analysis of RFMA	Mr. Sandeep Natekar, Director, Systech Enterprise
1.		2013-14	11 September, 2013	4G Network and Mobile Communication
2.	3 April, 2014		Mobile Communication	Ms. Shivani Oza
3.	5 September,2013		Customized Online page for events	Mr. Hardik Patel, Founder, MyEBuddy.com
1.	2012-13	27 September, 2012	Awareness of Industrial Automation Systems”	Mr. G. G. Gharipurikar Dean, Abvolt Learning Centre, Turbhe

33. Teaching methods adopted to improve student learning:

2013-14

- Use of LCD projectors and Internet facility for teaching
- Regular project progress presentations
- Conduction of Guest lectures, workshops, seminars as per requirement.
- Regular conduction of group discussion and mock viva sessions during the semester for increasing the active involvement of students

2014-15

- Learning through seminars/ workshops under professional chapters such as IEEE, CSI, IET, IEI, IETE and ISTE
- Conduction of Industrial visits to provide practical exposure on subjects in the Curriculum.

2015-16

- Project based learning under Robocon activities
- Conduction of crash courses and doubt solving sessions for weaker students
- use of ICT based learning through Google classrooms
- Facilitating students with internship under external agencies to address the industry Institute gap
- Attainment calculation for practical, assignments and term tests.

2016-17

- Project based learning under e-Yantra activities
- Extensive use of Google classroom for assignments, Laboratory Experiments and Teaching material, project details etc.
- Bridge lectures to help the weaker students
- Teaching and learning using on line courses like course era, NPTEL etc.
- Continuous evaluation with Module & Course exit.

34. *Participation in Institutional Social Responsibility (ISR) and Extension activities:*

- Department takes active participation in all the ISR and extension activities conducted in the institute and are mentioned in Criteria3 and Criteria7.
- Every year, financial assistance is given to economically weaker students through KJSIEIT Helping Hand based on their performance and need.

35. *SWOC analysis of the department and Future plans:*

➤ Strength

- Well qualified, experienced, motivated and dedicated faculty and staff
- Well-equipped laboratory with state of art hardware and software tools
- Outcome based teaching-learning process with continuous evaluation of students with the extensive use of ICT
- Regular conduction of staff and student development programs as per current technological requirements and involving students in need based project development
- Active participation of staff and students in the institute level activities.

➤ Weakness

- Industry Institute interaction for project grants.
- Declining interest of students in the core area.

➤ Opportunity

- Development and growth in research activity through establishment of Research Centre for the PhD program
- Strive to receive grants for research/ consulting project from bodies like UGC, AICTE, etc.
- Scope for strengthening the industry institute interaction for better placements of students
- Scope for developing R and D activities by interacting with premier industries and reputed institutions.
- Increase in MoUs with industries.

➤ Challenges

- Core industry placement
- Poor quality of admitted students.

➤ Future Plans

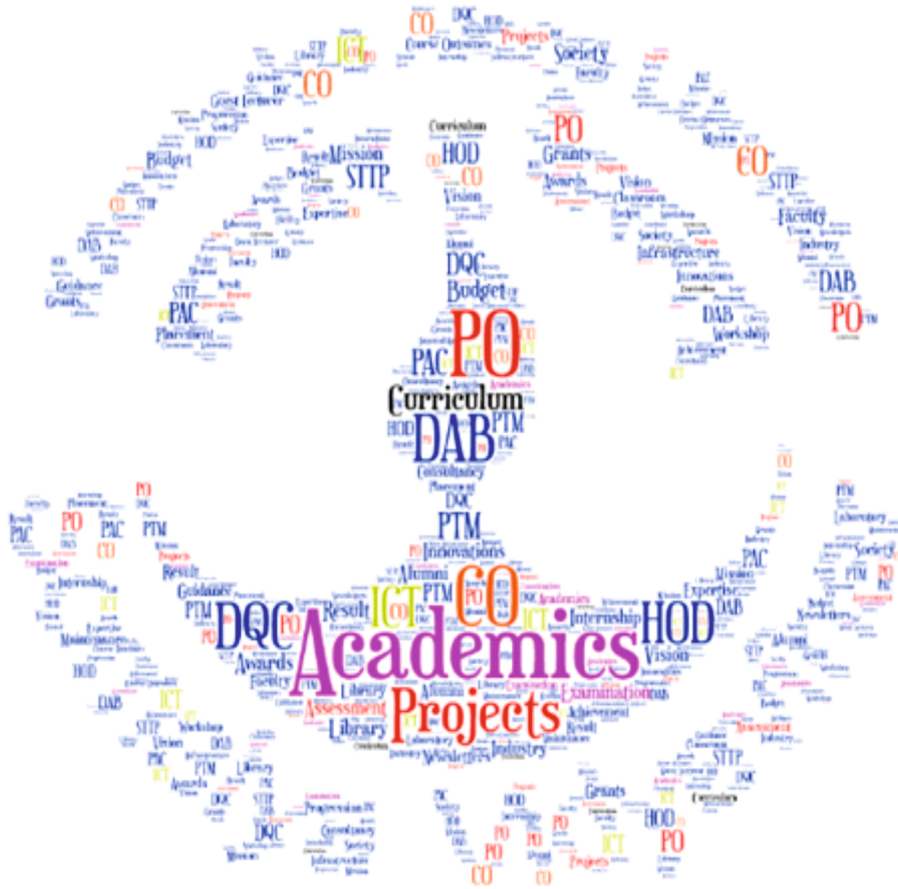
- Establishment of PG and PhD programs
- Implement upcoming technologies in theory/ practice to solve real life problems
- Establishment of Infrastructure for research and development activities by establishing laboratories under Signal and Image Processing, RF and wireless communication and Embedded systems



K J Somaia Institute of Engineering and Information Technology

Somaia Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Evaluative Report Of Computer Engineering Department



Evaluation Report of Computer Engineering Department

1. **Name of the department** : Computer Engineering
2. **Year of Establishment:** The department was established in A.Y. 2001-02 with intake of 45 and increased to 60 in the A.Y. 2003-04
3. **Names of Programmes/Courses offered :** UG- Bachelor of Engineering (Computer Engineering)
4. **Names of Interdisciplinary courses and the departments/units involved : Courses taken by other department faculty, and the department involved are listed below.**

Subject Code	Subject Name	Semester	A. Y.	Department Involved
CSC301	Applied Mathematics-III (AM-III)	III	Every Year	Basic Science & Humanities
CSC401	Applied Mathematics-IV=I (AM-IV)	IV	Every Year	Basic Science & Humanities
CSC506	Business Communication and Ethics (BCE)	V	Every Year	Basic Science & Humanities
CPC701	Digital Signal Processing (DSP)	VII	2016-2017	Electronics Engineering
CSC306	Electronic Circuits and Communication Fundamentals(ECCF)	III	Every Year	Electronics Engineering
CPC604	Mobile Communication and Computing (MCC)	VI	2016-2017 2015-2016	Electronics Engineering, Electronic and Telecommunication Engineering
CSC403	Computer Organization Architecture(COA)	IV	2016-2017 2014-2015	Electronics Engineering
CPE7024	Software Architecture(SA)	VII	2016-17	Electronic and Telecommunication Engineering
NA	Embedded Systems	VIII	2013-14	Electronics Engineering
CPC803	Parallel and distributed Systems	VIII	2016-17	Electronic and Telecommunication Engineering

5. **Annual/ semester/choice based credit system (programme wise):**

- Up to academic year 2011-15 term, it was Semester/ Marks Based System of University of Mumbai.

- For the academic year 2012-16 term, Semester/ Credit based grading system started of University of Mumbai.
- Choice based credit and grading system is introduced from Academic year 2016-17 by University of Mumbai for First year Engineering
- Currently, results are declared semester wise. The performance of learner in a semester is indicated by semester grade point index or SGPI. Promotion to higher class is based on combined result of semesters in a particular year.
- At the end of four years there will also be a final cumulative grade point index CGPI calculated which considers all credits earned by learner specified for the particular programme.

6. Participation of the department in the courses offered by other departments:

Course Code	Course Name	Semester	A. Y.	Offered to (Dept. Name)
FEC205	Structured Programming Approach	II	2016-2017	Basic Science Humanities
EXL304	Object Oriented Programming	III	2014-2015	Electronics Engineering
			2013-2014	Electronics Engineering, Electronics and Telecommunication Engineering

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

The institute is affiliated to University of Mumbai and there is no provision in Mumbai University to run such courses.

However, students of the department are enrolled for

- Online courses conducted through NPTEL (National Programme on Technology Enhanced Learning) which is an initiative by Indian Institutes of Technology (IIT).
- Microsoft Certification courses by CMP InfoTech and ATS Infotech for Computer, IT students in summer vacation.

8. Details of courses/programmes discontinued (if any) with reasons : NIL

9. Number of Teaching posts

Cadre	Sanctioned	Filled
Professors	1	1
Associate Professors	2	00*
Assistant Professors	9	11

*For 02 Faculty CAS (Career Advancement Scheme) promotion has to be implemented.

10. Faculty Profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. Sunita Patil	Ph.D.	Professor and Vice-principal	Computer Engineering	17 yrs	NIL
2	Mrs. Sarita Ambadekar	ME	Assistant Professor and Head of Department	Computer Engineering	18.6 yrs	NA
3	Mrs. Shyamal Virmodkar	ME	Assistant Professor	Computer Engineering	16.3 yrs	NA
4	Mrs. Mrunali Desai	ME	Assistant Professor	Computer Engineering	14.2 yrs	NA
5	Mrs. Kavita Bathe	ME	Assistant Professor	Computer Engineering	12 yrs	NA
6	Mrs. Jyoti Wadmare	ME	Assistant Professor	Computer Engineering	10 yrs	NA
7	Mrs. Chitra Bhole	ME	Assistant Professor	Computer Engineering	11.6 yrs	NA
8	Mrs. Nisha Vanjari	ME	Assistant Professor	Information Technology	9.4 yrs	NA
9	Mrs. Jignasha Dalal	ME	Assistant Professor	Computer Engineering	10.6 yrs	NA
10	Mrs. Shubhada Labde	ME	Assistant Professor	Computer Engineering	10 yrs	NA
11	Mrs. Nilambari Joshi	M. Tech	Assistant Professor	Computer Engineering	10.3 yrs	NA
12	Mr. Babaso Aldar	ME	Assistant Professor	Computer Engineering	4.6 yrs	NA

Mrs. Sarita Ambadekar and Mrs. Nilambari Joshi are pursuing PhD in Computer Engineering.

11. List of senior visiting faculty- Nil

Institute has appointed qualified and experienced faculty as per the norms of AICTE and are approved by University of Mumbai.

12. Percentage of lectures delivered and practical classes handled(programme wise)by temporary faculty

Year	Sem	No. of Faculties	percentage	
			Theory in %	Practical in %
2016-17	Odd sem	4	35.5%	17.35%
	Even sem	2	17.50%	8.56%
2015-16	Odd sem	1	12.6%	5.8%
2014-15	Odd sem	1	7.35 %	7.35%
2013-14	Odd sem	2	16.66%	24.13%
	Even sem	3	15.58%	29.31%

13. Student -Teacher Ratio (programme wise):

Programme	Name	No. of students	No. of teachers	Student- Teacher Ratio
UG	Computer Engineering	180	12	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Sr.No.	Type of Staff	Filled
1	Technical Assistant	01
2	Lab Assistant	03
3	Lab Attendant	01
4	Peon	01

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Sr. No.	Qualification	Total
1	Ph.D	1
2	ME / M Tech	11
3	BE	NIL

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr. No.	Faculty Name (Principal Investigator)	Funding Agency	Project Title	Year	Amount Sanctioned(Rs.)
1	Mrs. Kavita Bathe	University of Mumbai	Water Quality Monitoring System using Wireless sensor Network and Data Mining	2016-17	25,000/

18. Research Centre /facility recognized by the University: Nil

19. Publications:

a) **Publication per faculty**

Number of papers published in peer reviewed journals (national /international) by faculty and students

Number of papers published in peer reviewed journals by faculty :- national- nil
International- 42

Number of papers published in peer reviewed journals by students:- national- nil
International- 20

Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

- **Monographs**
- **Chapter in Books**
- **Books Edited**
- **Books with ISBN/ISSN numbers with details of publishers**
- **Citation Index**
- **SNIP**
- **SJR**
- **Impact factor**
- **h-index**

- Monographs: - Nil
- Chapters in books: -Nil
- Editing in Books : -- Nil
- Books with ISBN numbers with detail of publishers: - Nil
- Citation Index: 1-3
- SNIP: Nil
- SJR: Nil
- Impact factor: 1.5 – 5.8
- H-Index: 0-1

20. Areas of consultancy and income generated

The department faculty members are contributing actively in Software development Cell (SDC) of the institute. The consultancy project details taken up by the faculty members are as given below.

For home Institute

Sr. No.	Faculty Name	Project Name	Duration	Savings Done (worth amount)
1.	Mrs. Nilambari Joshi Mrs. Mrunali Desai Mr. SantoshJadhav	Faculty Feedback	2014-16	Rs. 30,000/-
2.	Mrs. Shyamal Virnodkar Mrs. Kavita Bathe Mrs. Mrunali Desai Mrs. Nilambari Joshi Mr. Santosh Jadhav	Admission Process Management Application	2014-2016	Rs. 1,00,000/-
3.	Mrs. Nilambari Joshi	Private Cloud Setup	2015-18	In Progress Rs. 1,50,000/-

For other institutes

Sr. No.	Faculty Name	Project Name	Duration	Income Generated
1.	Mrs. Shyamal Virnodkar, Mrs. Kavita Bathe	KIAAR Information Management	2014-15	-
2.	Mrs. Shyamal Virnodkar Mrs. Kavita Bathe	Soil Fertilizers Calculator	2015-16	Rs. 20,000/-
3.	Mrs. Shyamal Virnodkar Mrs. Kavita Bathe Mrs. Mrunali Desai Mrs. Nilambari Joshi Mr. Santosh Jadhav	Examination Management Application for K J Somaiya College of Science and Commerce	2016-17	Ready to deploy
4.	Mrs. Shyamal Virnodkar Mrs. Kavita Bathe Mrs. Mrunali Desai Mr. Santosh Jadhav	Admission Process Management Application for G V Acharya Institute of Engineering Technology, Selu	June 2016	Rs. 40,000/-
5.	Mrs. Shyamal Virnodkar Mrs. Kavita Bathe Mrs. Mrunali Desai Mr. Santosh Jadhav	Mobile App for farmers Godavari Biorefinery, Karnatak	July 2016	Rs. 46,00,000/- (PO received) Amount received Rs. 11,30,000/-
6	Mrs. Shyamal Virnodkar Mrs. Kavita Bathe Mrs. Mrunali Desai Mr. Santosh Jadhav	Conducted Workshop on "Android app development " at Thakur College of Engineering	24/02/2017 and 25/02/2017	Rs. 21,000/-

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

a) National committees

(ISTE) Indian Society of Technical Education – 09

b) International Committees

(IET) The Institution of Engineering and Technology - 11

c) Editorial Boards.... - Nil

Faculties of the department are involved in university level committees like...

Sr. No.	Faculty Name	Committee/ Professional Society/ Body/ Journal	Membership Type
1	Dr. Sunita Patil	IET	Vice Chairman, IET, Mumbai LN, for 2016-17 Mumbai LN, Vice Chairman -Young Professional section, Mumbai LN for 2015-16
		BoS member	For KIT, Shivaji University, Maharashtra
		Adjunct Professor	For KIT, Shivaji University, Maharashtra
		Session Chair	For National symposium on Advance Computing at Walchand Sangali, Shivaji University
2.	Dr. Sunita Patil Mrs. Sarita Ambadekar Mrs. Mrunali Desai Mrs. Shubhada Labde Mrs. Sandhya Kadam Mrs. Nisha Vanjari Mrs. Jyoti Wadmare Mrs. Chitra Bhole Mrs. Jignasha Dalal Mrs. Shyamal Virnodkar Mrs. Kavita Bathe	Member	Syllabus Revision Committee for Mumbai University (2016-17)

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme

Academic year	No. of Students on Roll	No. of Students doing In-house project	percentage of student(%) doing In-house project
2016-17	84	75	90
2015-16	62	53	86

2014-15	74	74	100
2013-14	69	69	100

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

Academic year	No. of Students on Roll	No. of Students doing Out-house project	percentage of student(%) doing Out-house project
2016-17	84	09	10
2015-16	62	09	14
2014-15	74	00	0
2013-14	69	00	0

23. Awards / Recognitions received by faculty and students

Faculty Awards/Recognitions in different categories:

Sr. No.	Faculty Name	Awards/Recognition	Year	Organization
1	Dr. Sunita R Patil (along with students)	Filed for Permanent Complete Patent on “The Saviour Bag” Application No:201721009725	2016-17	Government of India, PSP-IP Attorney.
2	Mrs. Sandhya Kadam, Ms. Aarti Sahitya(along with students)	Filed for Permanent Complete Patent on “Cluster based cognitive storage” Application No:201721009726	2016-17	Government of India, PSP-IP Attorney
3	Mrs. Jyoti Wadmare	Certificate for her role as a SPOC and rated as AA grade by NPTEL	2016	National Programme on Technology Enhanced Learning (NPTEL)
4	Mrs. Nilambari Joshi	Promising Faculty award by Somaiya Trust	2016	Somaiya Trust
5	Mr. Shyamal Virnodkar Mrs. Kavita Bathe Mrs. Mrunali Desai Mrs. Nilambari Joshi Mr. Santosh Jadhav	Appreciation Letter for completing projects	2016	KIAAR, Sameerwadi, Karnataka

6	Mrs. Kavita Bathe	Chairman's Award for Interdisciplinary Projects by Somaiya Trust	2015	Somaiya Trust
7	Mrs. Shyamal Virnodkar	Outstanding Performance in Teaching for the Academic year 2013-14 by Somaiya Trust	2014	Somaiya Trust

Student Awards/Recognitions in different categories:

Academic Year:2016-17

Sr. No	Name of Activity: Topic	Name of Participant	Co-ordinated By (Venue/Association with)	Date	Prize	Class
Competition						
1	Mozilla Community	Harsh Daftary, Utkarsh Dhawan	Mozilla Andheri	July 15 th 2016	Outstanding Support Contribution	BE
2	Taekwondo Competition	Saurabh Vishwakarma	HUFA Fitness Academy sion	November 20 th 2016	First	BE
3	Mastek Deep Blue Project Season-2	Aniket Bharati, Rahul Gupta, Anmol Mishra, Rupesh Barve	Mastek, organized at VES College, Chembur	January 22 nd 2017	First Runner Up	TE
4	Mastek Deep Blue Project Season-2	Vijay Jha, Ronak Kachalia, Yash Jain, Praful Mishra	Mastek, organized at VES College, Chembur	January 22 nd 2017	Second Runner up	TE
5	Google Summer of Code	Harsh Daftary	Google India and Debian Germany	April-Sep 16	Successful Completion	BE
6	Cyber Security Expo, Dubai	Harsh Daftary	Clifey Innovations LLP	10th - 16th Feb 17	Invited as Speaker	BE
7	Web Conference	Utkarsh Dhawan	Web Summit 2016, Lisbon, Portugal	Nov-16	Open Source Contributor	BE

Academic Year:2015-16

Sr. No	Name of Activity: Topic	Name of Participant	Co-ordinated By (Venue/Association with)	Date	Prize	Class
Competition						
1	IEEE DIY	Yash Gajara	IEEE DIY Project Competition	March 21 st 2015	Ranked 8th all over the world	SE
2	CIPHER CONTEST	Yash Gajara	TCS IT	2015	Winner	SE
3	MICRODuin o Makers Photo Contest	Yash Gajara	MCRODUIN O	May 7 th 2015	Winner	SE
4	Google Summer of Code	Harsh Daftary	Google India and Debian Germany	April-Sep 15	Successful Completion	TE
5	Ground Zero Security Summit	Harsh Daftary	Indian Infosec Consortium	5th - 6th Nov 15	Invited as Speaker	TE
6	FOSDEM Belgium	Harsh Daftary	Debian France	31st Jan 16	Invited as Speaker	TE

Academic Year:2014-15

Sr. No	Name of Activity: Topic	Name of Participant	Co-ordinated By (Venue/Association with)	Date	Prize	Class
Competition						
1	Taekwondo games	Saurabh Vishwakarma	Walkeshwar, Mumbai	January 25 th & 26 th 2015	Gold Medal	SE
2	Research Presentation	Harsh Daftary	Cyber Security & Privacy Foundation	17th Mar, 2015	First Rank	SE

24. List of eminent academicians and scientists/visitors to the department

Sr. No.	Date	Name of academician/scientist/visitor	Purpose to Visit (Expert Talk/seminar on)
1	12/01/2017	Mr. Chirag Panchal Microsoft Certified Trainer, CMP Infotech, Mumbai	Certification Training Program Awareness
2	27/01/2017	Mr. Prashant Nair MD,COGNITOIT Consulting Pvt. Ltd.Mumbai.	Hadoop and Big Data Analytics
3	31/01/2017	Mr. Chandrakant Deshmukh Development CoE and Shared Services MASTEK Pvt. Ltd. Mumbai.	Current Trends in Industry
4	22/03/2017	Mr. Devidas Gawali Project Research Engineer IIT Bombay	Research Opportunities and Future Scope
5	29/03/2017	Mr. Abhishek Kohli SME- soft skills, Seed infotech	Soft skills for Interview techniques and Resume building
6	03/04/2017	Mr. Supratim Biswas, Professor, Computer Science and Engineering, IIT, Powai.	Optimization in Compilers
7	06/01/2016	Dr. Larry Walker Emirates Professor, Cornell University	Research, Automation and IoT opportunities in Agriculture Sector
8	12/01/2016	Mr. Raturaj Pattnaik Ex. National head for value added services and Sales head for top corporate	Corporate Employability
9	20/02/2016	Ms. Divya Thampi Learning & Organization Development Professional and Certified Coach	Increasing productivity of Academicians
10	02/03/2016	Mr. Achyut Godbole Famous Writer, Ex-CEO L&T Infotech	IT Yesterday today and Tomorrow
11	18/03/2016	Mrs. Nutan Limaye Assistant Professor. IIT Mumbai	Hats off TCS
12	04/03/2016	Ms. Swapnali Jomraj National, Head sales ,veloces consulting services Pvt.Ltd	Adobe Photoshop
13	26/07/2016	Dr. Harold D'costa CEO of Intelligent Quotient Security System.	Cyber Security
14	11/08//2016	Mr. Kunal Panchal Capgemini India Pvt Ltd., Senior Consultant.	Project Development Strategies
15	30/08/2016	Mr. Shantanu Deshmukh Systems Engineer 4,Deloitte Consulting India Private Ltd.	Basic Java & Standard Software Design Models
16	03/09//2016	Mr. Mayank Purohit Security Engineer , BNP PARIBAS	Public Key Infrastructure

17	21/09/2016	Mr. Shantanu Deshmukh Hybris Developer, Deloitteconsulting.	PHP
18	30/09/2016	Mr. Chirag Panchal Microsoft Certified Trainer, CMP Infotech.	Certification Courses Awareness
19	08/10/2016	Mr. Pawankumar Fakatkar CEO, Jubilant Technologies	Digital signal processing and Embedded system
20	01/04/2015	Mr. Milind Kuri Co- Founder & Creative Head, Esham Studios, Mumbai.	Animation
21	19/03/2015	Mr. Sanjeev Chakraborty Solution Architect, Citius Technology	Industrial view on software architecture styles
22	18/03/2015	Dr. Ashish V. Tendulkar Senior Data Scientist, Reliance Industries Ltd.	Sequence Alignment Using Dynamic Programming
23	27/02/2015	Mr. Milind Vengurlekar Technical Architect, Mastek Ltd.	Database Management System
24	24/02/2015	Mr. Prashant Nair Senior Subject Matter Expert	Introduction to big data and Hadoop
25	12/02/2015	Prof. Dik Morling Emeritus Professor.	VLSI Design
26	03/02/2015	Mr. Nilesh Wadkar Software Tester, Techcanvas, Mumbai.	Software Testing
27	27/01/2015	Ms. Nutan Limaye. Assistant Professor, CSC Department, IIT Bombay.	Complexity Theory
28	20/01/2015	Mr. Abhay Thakkar Zen Technology	Social Networking & Ethical Hacking
29	28/01/2015	Mr. Saurabh Parikh President, PMI, India.	Project Management
30	30/01/2015	Mr. Manmohan Kohali kraft educational services (kes)	Career and Education Opportunities after BE
31	01/08/2015	Mr. Praful Mayekar Executive Vice President	Software Development, an Industry Approach
32	08/08/2015	Mr. Alwyn Henry IP Solutions Mumbai	Networking
33	12/08/2015	Mr. Chintan Shukla Software Engineer, Financial Technologies India Ltd.	Advancement in JAVA
34	13/08/2015	Mr. Nilesh Wadkar The Optimism Computer Education LLP, Mumbai	Structured Object Oriented Analysis and Design
35	22/08/2015	Dr. Vichare Abhijat consultant , Abhijat Research and software	Ubuntu awareness and network administration

36	24/08/2015	Ms. Megha Korgaonkar Software Developer, Financial Technologies	Data Structures
37	04/09/2015	Mr. Amitraj Deshmukh Project Manager, Fidel Softech Pvt Ltd.	Internet of Things
38	14/09/2015	Mr. Mayank Purohit Senior Software Engineer –Application Security, Mastek Ltd. Navi Mumbai	Cryptography and OWASP-10
39	23/09/2015	Mr. Chirag Panchal Microsoft Certified Trainer	Oracle Certification awareness
40	14/09/2015	Mr. Rajesh Bhat Senior Business Executive, IET India	Professional Membership Benefits in education & as Professional
41	25/09/2014	Mr. Suresh Kumar Assistant Project Manager,	Search Engine Optimization
42	08/08/2014	Mr. Vikas Naik	Awareness of Cyber Crime and Security
43	08/08/2014	Mr. Niranjana Butola IIT Delhi Alumnus	Android
44	05/09/2014	Mr. Satish Paul CMSS Pvt. Ltd. Malad.	PHP
45	11/09/2014	Mr. Pranab Bose IT source Technology	Ethical Hacking
46	12/09/2014	Mr. Sagar Maniar Senior Programmer Accenture Services Pvt. Ltd. Airoli .	Java Collections
47	18/10/2014	Mr. Kunal Panchal Director HETU Pvt. Ltd.	Workshop on Developing Mobile Applications with the power of HTML 5

25. Seminars/ Conferences/Workshops organized & the source of funding a)

National

b) International

a) National

Sr. No.	Date	Title of the Seminar/Conference/Workshop	Source of funding
1	21/12/2016 to 23/12/2016	Workshop on “Python-Object Oriented Programming Language”	Institute funding + registration charges
2	5/10/2016	National Symposium On “Evangelizing Internet of Things (IOT)”	IET
3	25/04/2016 to 29/04/2016	Training cum workshop on "NAAC-Process, Criteria and Audit"	KJSIEIT
4	08/01/2016	One day workshop on “NPTEL Awareness”	IIT, Bombay

5	04/05/2015 to 08/05/2015	FDP on “Recent Advances in Big Data Technologies and Applications”	Institute funding + registration charges
6	09/02/2015 to 13/02/2015	FDP on “Cloud Computing and Virtualization”	Institute funding + registration charges
7	19/07/2014	Workshop on “INSPECT Digital Library” in Association with IET	IET
8	11/09/2014	Workshop on “Android Application Development” in Association with IET	IET
9	12/09/2014	Workshop on “Digital Media Marketing” in Association with IET	IET
10	12/9/2014 & 13/9/2014	Seminar on “Free Open Source Software” in Association with IET	IET
11	10/11/2014 to 14/11/2014	STTP on “Cloud Computing and Big Data Analytics”	KJSIEIT(Self-Funded)
12	15/03/2014	Present Around The World (PATW-2014) Competition	IET
13	27/09/2014	Launching of “IET-NICE”	IET
14	05/10/2013	Seminar on “NBA process & form-filling”	KJSIEIT(Self-Funded)

26. Student Profile programme/course wise:

Name of the Course Computer Engineering	Applications received	Admitted	(Admitted)	Enrolled		Pass percentage		
				*M	*F			
2016-17	(Centralized Admission Process) + J&K +TFWS+Transfer		OPEN SC SBC OBC	31	50	16	NA	
		26 1 1 3						
	Against CAP	199	20					20
	Against Minority	76	15	15				
2015-16	Centralized Admission Process) + J&K +TFWS		OPEN SC NT OBC	11	45	15	100% Admitted year 2012-13	
		10 0 0 1						
	Institute Level	460	12					12
	Minority	276	31					31
	Against CAP	395	6					6
	Against Minority		0	0				

2014-15	(Centralized Admission Process) + J&K +TFWS		OPEN	SC	NT	OBC	15	47	13	98.51% Admitted year 2011-12
			12	1	0	2				
	Institute Level	404	12				12			
	Minority	535	31				31			
	Against CAP	217	2				2			
	Against Minority		0				0			
2013-14	(Centralized Admission Process) + J&K +TFWS		OPEN	SC	NT	OBC	13	50	10	94.12% Admitted year 2010-11
			12	0	0	1				
	Institute Level	310	12				12			
	Minority	487	31				31			
	Against CAP	264	4				4			
Against Minority	0				0					

*M=Male *F=Female

27. Diversity of Students

Year	%of students from the same state	%of students from other States	%of students from other abroad
2016-17	92%	8%	NA
2015-16	95%	5%	NA
2014-15	94%	6%	NA
2013-14	95%	5%	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sr. No.	Year	No. of Students Cleared		
		GATE	GRE/GMAT	TOEFL
1	2016-17	-	7	7
2	2015-16	11	3	-
3	2014-15	14	2	-
4	2013-14	-	-	-

29. Student progression

Student progression	Against % enrolled			
	2016-17	2015-16	2014-15	2013-14
UG to PG	0.00	3.23	7.46	17.39
PG to Ph.D.	0	0	0	0
Employed •Campus selection	75.43	95.24	82.5	62.26
•Other than campus recruitment	0.00	13.64	38.24	41.67
Entrepreneurship/Self-employment	0.00	3.22	1.49	4.35

* Data Collected from LinkedIn and communication through emails.

30. Details of Infrastructural facilities

a) Library:

Department library located on Fifth floor in Room No. 501. This area is equipped with internet facility, two glass cupboards, tables and chairs for reading books. Library details are as given below

Sr. No.	Details	Quantity
1	Text Books	330
2	Magazines	12
3	Project reports	93
4	University Question papers	211
5	University Question papers with solutions	33
6	Term test question papers	127

b) Internet facilities for staff and students:

- Department has 24x7 internet(56 Mbps) and intranet facility for faculty, staff and students.
- All laboratories and classrooms in the department are equipped with internet facility.
- HOD has a separate room for discussion and counseling, equipped with computer with internet and a printer.
- Each faculty is provided a computer with internet and sharing printer facility .
- Institute provides exclusive Somaiya Vidyavihar (svv) mail id to all faculties, staff and students
- Department has online student attendance (theory + practical) filling system for faculties and staff.

- Institute has provided online filling of leave applications, outdoors /vacation form, getting salary statement and TDS calculations through SENSYS Software ESS login to all faculties and staff.

c) Class rooms with ICT facility:

Teaching aids available with the department are

- No. of LCD Projector: 03
- No. of Laptops: 03
- No. of classrooms with internet connection:03
- No. of digital boards in institute:02

d) Laboratories:

Sr. No.	Laboratory Name	Room No.	Floor
1	Software Development Cell	301	Third
2	Microprocessor Lab	302	
3	Advance Database Lab	303	
4	Web Technology Lab	304	
5	Programming Lab	305	
6	Artificial Intelligence Lab	501	Fifth
7	Networking Lab	502	

31. Number of students receiving financial assistance from college, university, government or other agencies

Sr. No	Scholarship	No. of Students				
		2016-17	2015-16	2014-15	2013-14	2012-13
1	SC/VINT/OBC/SBC	-	9	10	20	26
2	Minority State Government	-	14	17	15	9
3	EBC	-	6	5	11	12
4	TATA Scholarship	6	4	-	-	-
5	Minority Central Government	-	1	2	-	-
6	University EBC	-	2	-	-	-
7	ST	-	-	-	-	1
Total		6	36	34	46	48

Apart from above scholarships other scholarships available are Institute-Merit Cum Means, Somaiya Scholarship for Girls, Teacher Ward Scholarship

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Sr. No.	Date	Name of experts	Name of the expert//workshops/ Seminars
1	12/01/2017	Mr. Chirag Panchal Microsoft Certified Trainer, CMP Infotech,Mumbai	Certification Training Program Awareness
2	27/01/2017	Mr. Prashant Nair MD,COGNITOIT Consulting Pvt. Ltd. Mumbai.	Hadoop and Big Data Analytics
3	31/01/2017	Mr. Chandrakant Deshmukh Development CoE and Shared Services MASTEK Pvt. Ltd.Mumbai.	Current Trends in Industry
4	14/03/2017	Mr. Aditya Maharaja Student BE Comp, Intern-Teach For India	Design Thinking
5	22/03/2017	Mr. Devidas Gawali Project Research Engineer IIT Bombay	Research Opportunities and Future Scope
6	29/03/2017	Mr. Abhishek Kohli SME- soft skills, Seed infotech	Soft skills for Interview techniques and Resume building
7	03/04/2017	Mr. Supratim Biswas, Professor, Computer Science and Engineering, IIT, Powai	Optimization in Compilers
8	01/09/2016	Mr. Ajitesh Gadwe , TE Student ,KJSIEIT	Basic Concepts of Networking
9	08/10/2016	Mr. Pawan Kumar Fakatkar Jubilant Technologies C.E.O	Digital Signal Processing & Embedded System
10	26/07/2016	Dr. Harold D'Costa CEO Intelligent Quotient Security System, Pune	Cyber Security
11	30/09/2016	Mr. Chirag Panchal Microsoft Certified Trainer, CMP Infotech	Certification Course Awareness
12	11/08//2016	Mr. Kunal Panchal Capgemini India Pvt Ltd. Senior Consultant	Project develop Strategies
13	01/09/2016	Mr. Ajitesh Gadwe & Mr. Moin Masurkar BE & SE Students, KJSIEIT	Cyber Security & Ethical Hacking

14	03/09//2016	Mr. Mayank Purohit Security Engineer BNP PARIBAS	Cryptography& System Security
15	21/09/2016	Mr. Shantanu Deshmukh Hybris Developer Deloitte Consulting	Overview of PHP & Database Connectivity
16	20/02/2016	Ms. Divya Thampi Learning and Organization development Professional and Certified Coach	Increasing productivity of Academicians
17	08/01/2016	Prof. R. K. Shevgaonkar, Principal investigator, IIT Bombay. Prof Ananth ,Prog Patap Haridoss, Mrs Deepa V. (IIT Madras)	Workshop on NPTEL awareness
18	06/01/2016	Dr. Larry Walker Cornell University	Research, Automation and IoT opportunities in Agriculture Sector
19	02/03/2016	Mr. Achyut Godbole EX-COE ,IBM Author	IT Yesterday Today and Tomorrow
20	12/01/2016	Mr. Raturaj Pattnaik Ex. National head for value added services andSales head for top corporate	Corporate Employability
21	05/03/2016	Mr. Soumil Parag Shah TE ETRX Student, KJSIEIT	Learning automation through arduino and interfacing of sensor
22	18/03/2016	Mrs. Nutan Limaye Assistant Professor, CSC Department ,IIT Mumbai	Hats off TCS
23	04/03/2016	Ms. Swapnali Jomraj National, Head sales ,veloces consulting services Pvt. Ltd	Adobe Photoshop
24	14/09/2015	Mr. Mayank Prohit Senior Software Engineer, Application Security, Mastek Ltd Navi Mumbai.	Crptography and OWASP-10
25	01/08/2015	Mr. Praful Mayekar Executive Vice President, Futurism Technologies	Software Development- An Industry Perspective
26	08/08/2015	Mr. Allwyn Henry IP Solutions	Networking& Security
27	03/02/2015	Mr. Nilesh Wadkar Optimism Computer Education LLP	Structured Object Oriented Analysis and Design
28	21/08/2015	Mr. Tejas Kesaria TE Computer Student ,KJSIEIT	Hands on PHP
29	11/08/2015	Mr. Chintan Shukla Software Engineer, Financial Technologies India Ltd.	Advancement in Java
30	22/08/2015	Ms. Megha Korgaonkar Software Developer, Financial Technologies	Data Structures
31	23/09/2015	Mr. Chirag Panchal Microsoft Certified Trainer, CMP Infotech	Oracle certification Awareness
32	04/09/2015	Mr. Amitraj Deshmukh Project Manager Fidel Softech Pvt Ltd.	Internet of Things

33	14/09/2015	Mr. Rajesh Bhat Senior Business Executive, IET India	Professional Membership Benefits in Education and as Professional
34	14/09/2015	Dr. Vichare Abhijit Consultant , Abhijat Reaserch and Software ,Mumbai	Ubuntu Awareness and network Administration
35	18/03/2015	Dr. Ashish Tendulkar Senior Data Scientist, Reliance Industries Ltd.	Sequence Alignment using Dynamic Programming
36	26/02/2015	Mrs. Kavita Takkar Mr. Sujit Nair 1) Coordinator of ZenTechnologies, 2) CEH Engineering in Computer Science	Ethical Hacking and Cyber Security
37	27/02/2016	Mr. Samir Jakkal, Mr. Milind Vengurlekar, 1)Module leader, Mastek Ltd. 2) Technical Architect Mastek ltd	Data Base Management System
38	05/09/2015	Mr. Satish Paul CMSS Pvt. Ltd. Malad.	PHP
39	11/09/2015	Mr. Pranab Bose IT source Technology	Ethical Hacking
40	24/02/2015	Mr. Prashant Nair, Senior Subject matter Expert, Msys Tech India Pvt ltd	Big Data and Hadoop
41	12/02/2015	Prof. Dik Morling Emeritus Professor ,UK University	History of VLSI Design
42	03/02/2015	Mr. Nilesh Wadkar, Software Tester, Tech canvas, Mumbai	Software Testing
43	12/09/2014	Mr. Sagar Maniar Senior Programmer, Accenture Services Pvt Ltd	Java Collections
44	12/09/2014	Mr. Vishwajit Joshi, Senior Manager, Accenture Services Pvt Ltd	Project Management

33. Teaching methods adopted to improve student learning

a) Teaching Innovations:

2013-14

- Use of LCD projectors and Internet facility for teaching.
- Regular project progress presentations.
- Conduction of Guest lectures, workshops, seminars.

2014-15

- Project based learning under SDC.
- Learning through seminars/ workshops under professional chapters such as IEEE, CSI, IET, IEI, IETE and ISTE
- Conduction of Industrial visits to provide practical exposure of students.

2015-16

- Conduction of certification courses for awareness of latest software.
- Use of ICT based learning through Google classroom.
- Teach/train students to work on live projects (Private Cloud set up)
- MOU with Industries and NGO, through which students get guidance from industry experts
- Motivated students to participate in Mastek Deep Blue Projects Season-1, through which students got opportunity to work on live projects with industry experts.
- NPTEL certification Courses for staff and students which are useful to improve the quality of teaching learning process.

2016-17

- Extensive use of Google classroom to upload notes, assignments, laboratory experiments, announcements, video lectures, conduct MCQ test, module exit survey , course exit survey etc.
- Teaching and learning using on line courses like coursera, NPTEL etc.
- Continuous evaluation using Module & Course exit surveys.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Department faculty and students actively participate in all extension and ISR activities mentioned in criteria 3 and 7.

35. SWOC analysis of the department and Future plans

Strengths

- Well qualified, motivated, hard working faculty and staff with professional and teaching experience.
- Laboratories are adequately equipped and extensive use of open source software
- High percentage of placements.
- Teaching-learning is carried out with the extensive use of ICT & OBE .
- Number of co-curricular & extra-curricular activities for value addition to students.
- SDC provides platform for students to work on real time projects and internship opportunities.
- Faculty members involved in SDC develop in-house projects and provide consultancy services.
- Consistently good performance in NPTEL certification courses.

Weakness

- Less number of PhDs.
- Research Patents deficiency.

Opportunity

- Increase in internship opportunities with more number of MoUs.
- Increase number of interdisciplinary projects.
- Scope for developing R & D activities by interacting with premier industries and reputed institutions

Challenges

- Continuous up-gradation of knowledge required because of rapid changes in the area of Computer Engineering.
- Promoting entrepreneurship

Future Plans:

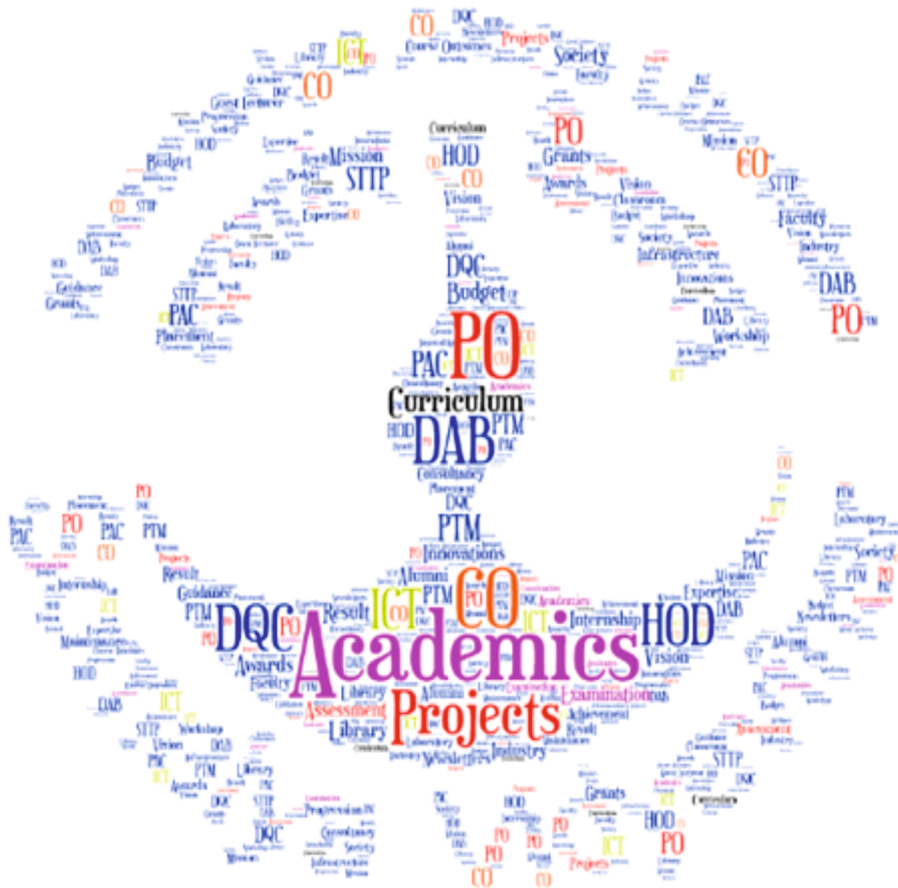
- To start PG and PhD program.
- To receive maximum research grants from different funding agencies.
- To increase the internship programs for students in the industry as well as Institute.
- To increase the contribution of Alumni students in departmental activities.



K J Somaiya Institute of Engineering and Information Technology

Somaiya Ayurvihar Complex, Eastern Express Highway,
Sion (E), Mumbai -400022

Evaluative Report Of Information Technology Department



Evaluative Report of

Department of Information Technology

1. Name of the department: Information Technology

2. Year of Establishment: A.Y.2001-2002 with intake of 45 and increased to 60 in 2003-04

3. Names of Programmes/ Courses offered

UG- Bachelor of Engineering (Information Technology)

4. Name of Interdisciplinary courses and the departments/units involved:

Name of Interdisciplinary Courses				
Subject Code	Subject Name	Semester	Academic Years	Supporting Department
SEITC301	Applied Mathematics-III	III	Every Year	Basic Science & Humanities
SEITC401	Applied Mathematics-IV	IV	Every Year	Basic Science & Humanities
TEITC505	Business Communication and Ethics (BCE)	V	Every Year	Basic Science & Humanities
EXL304	Object Oriented Programming Methodology	III	2014-2015	Computer Engineering
SEITC304	Analog and Digital Circuits	III	2013-2014	Electronics and Telecommunication
NA	Manufacturing processes, Planning and Systems	V	2013-2014	Basic Science & Humanities
NA	Environmental Studies	V	2013-2014	Basic Science & Humanities

5. Annual/semester/choice based credit system (programme wise):-

- Up to AY 2011-15 batches, it was Semester/ Marks Based System.
- For the AY 2012-16 batches, Semester/ Credit based grading system started.
- Choice based credit and grading system is introduced from Academic year 2016-17 by University of Mumbai for First year Engineering
- Currently, results are declared semester wise. The performance of learner in a semester is indicated by semester grade point index or SGPI. Promotion to higher class is based on combined result of semesters in a particular year.
- At the end of four years there will also be a final cumulative grade point index CGPI calculated which considers all credits earned by learner specified for the particular programme.

6. Participation of the department in the courses offered by other departments

Course Code	Name of Course	Semester	Department
FEC205	Structured Programming Approach	II	Basic Science & Humanities (First Year)

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sr. No.	Name of the Institute/Organization	Course
1	Microsoft IT Academy	Windows Development Fundamentals (.NET Level1+2)

8. Details of courses/programmes discontinued (if any) with reasons:-

Nil

9. Number of teaching posts:

Sr. No.	Post	Sanctioned	Filled
1	Professors	01	Nil
2	Associate Professors	02	00*
3	Assistant Professors	10	12

*For 01 Faculty CAS (Career Advancement Scheme) promotion has to be implemented.

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./Ph.D./M. Phil. etc.,)

Sr. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Mr. Uday Rote	M.E. (Computer Engg.)*	Assistant Professor	Computer Engg.	16	NA
2	Mr. Mansing Rathod	M.E. (Computer Engg.)*	Assistant Professor	Computer Engg.	16	NA
3	Mrs. Seema Yadav	M.E. (Computer Engg.)	Assistant Professor	Computer Engg.	16	NA

4	Mrs.Vijaya Pinjarkar	M.E.(Information Technology)	Assistant Professor	Information Technology	11	NA
5	Mrs.Naseem Shah	M.E.(Computer Engg.)	Assistant Professor	Computer Engg	12	NA
6	Mr.Harsh Bhor	M.E.(Computer Engg.)	Assistant Professor	Computer Engg	11	NA
7	Mrs.Vaishali Gaikwad	M.E.(Computer Engg.)*	Assistant Professor	Computer Engg	9	NA
8	Mrs.Reena Lokare	M.Tech(Computer technology)	Assistant Professor	Computer Technology	14	NA
9	Mrs.Sarita Rathod	M.E.(Information Technology)	Assistant Professor	Information Technology	10.5	NA
10	Mr. Prashat Sawant	M.Tech. (NIMS)	Assistant Professor	Network Infrastructure and Management System	3	NA
11	Mrs. Mama Borle	M.E.(Computer Engg.)	Assistant Professor	Computer Engg	6	NA
12	Mr. Vivek Solavande	M.E.(Computer Engg.)	Assistant Professor	Computer Engg	5	NA

*Faculty Pursuing PhD

11. List of senior visiting faculty

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Academic Year	Term	No. of Temporary Faculties	Lectures Delivered		Practical classes handled	
			No.	%	No	%
2016-17	I	3	18	26.47	28	26.92
	II	2	12	18.75	20	20.83
2015-16	I	2	11	15.94	20	15.15
	II	1	04	5.88	12	11.53
2014-15	I	4	18	30	48	40
	II	NA	NA	NA	NA	NA
2013-14	I	2	12	17.18	20	15.38
	II	4	16	25.39	22	22.00

13. Student-Teacher Ratio(programme wise):

Academic Year	Total Intake	Total no. of faculty	STR
2016-17	180	12	15 :1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Sr. No.	Type of Staff	Filled
1	Lab Assistant	04
2	Lab Attendant	01
3	Peon	01

15. Qualifications of teaching faculty with D.Sc./D.Lit./Ph.D./M.Phil./PG:

Qualification	Total
Ph. D.	00
M.E. / M. Tech.	10+(02 adhoc)= 12

Note : Three Faculty members are pursuing PhD.

16. Number of faculty with ongoing projects from a) National b)International funding agencies and grants received:

Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No	Title	Principal Investigator	Agency	year	Grant Amt.
01	Enrich Security in MANET by avoiding Wormhole Attack.	Mrs. Vaishali Gaikwad	Mumbai University	2016-17	Rs.25,000/-

18. Research Centre/facility recognized by the University

Nil

19. Publications:

a) Publication per faculty: from AY 2013-14 to 2016-17

Sr. No.	Name of Faculty	Total number of Publications
1.	Mr. Uday Rote	03
2.	Mr. Mansing Rathod	04
3.	Mrs. Seema Yadav	05
4.	Mrs. Naseem Shah	04
5.	Mrs. Vijaya Khirodkar	05
6.	Mrs. Vaishali Mohite	08
7.	Mr. Harsh Bhor	04
8.	Mrs. Sarita Rathod	06
9.	Mr. Prashant Sawant	01

* b) Number of papers published in peer reviewed journals (national/ International) by faculty and students

Faculty/Staff Publication

Sr. No.	Name of Faculty	Conference		Journal		Total
		National	International	National	International	
1	Mr.Uday Rote	-	-	-	03	03
2	Mr. Mansing Rathod	-	01	-	03	04
3	Mrs. SeemaYadav	01	-	-	04	05
4	Mrs..Naseem Shah	02	01	-	01	04
5	Mrs. Vijaya Khirodkar	-	04	-	01	05
6	Mrs.Vaishali Mohite	-	03	-	05	08
7	Mr.Harsh Bhor	01	-	-	03	04
8	Mrs.Sarita Rathod	01	-	-	05	06
9	Mr. Prashant Sawant	-	-	-	01	01

Student Publication

Sr. No	Academic Year	Conference		Journal	
		National	International	National	International
1	2016-17	-	05	-	21
2	2015-16	-	04	-	08
3	2014-15	05	-	-	06
4	2013-14	-	-	-	01

*Number of publications listed in International Database (For Eg:Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host,etc.):**-Nil**

*Monographs:- **Nil**

*Chapter in Books:-**Nil**

*Books Edited:-**Nil**

*Books with ISBN /ISSN numbers with details of publishers:-**Nil**

*Citation Index: **0-9**

*SNIP:- **NIL**

*SJR:- **Nil**

*Impact factor:-**0- 5.1**

*h-index:-**0- 2**

20. Areas of consultancy and income generated:

Sr. No.	Faculty Name	Project Name	Duration	Income Generated/ Savings Done
1	Mr. Prashant Sawant	Private Cloud Setup	2015-18	In Progress

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

a) National committees:

1. Indian Society For Technical Education:-**04**
2. Computer Society of India:-**02**

b) International Committees:

1. The Institution of Engineering and Technology:-**10**

c) Editorial Boards/Members:

1. Mr.Prashant Sawant is the member of review panel for International Journal for Research in Engineering Application &Management (IJREAM) Impact Factor: 3.495
2. Mrs.Vaishali Gaikwad represents the International Body IET as **IET Coordinator** (Mumbai LN)
3. Mrs.Vaishali Gaikwad is the member of review panel for IEEE Global Conference on Wireless Computing and Networking (GCWCN) on November 2014
4. Mrs.Vaishali Gaikwad is the member of review panel for International Conference on Computing, Communications and Informatics(ICACCI) Special Session on Malware Analysis & Forensics in SmartPhones, IEEE on June 2015
5. Mrs.Vaishali Gaikwad is Reviewer for IET- National Technical Paper Presentation 2014-15 competitions on the occasion of National Science Day on 27th Feb 2015 in KJSIEIT.

22. Student projects

- a) Percentage of students who have done in-house projects including interdepartmental/programme

Academic year	No. of Students on Roll	No. of Students doing In-house project	Percentage of students (%)
2016-17	82	82	100
2015-16	64	64	100
2014-15	72	60	83.33
2013-14	79	79	100

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies

Academic year	No. of Students on Roll(SE+TE+BE)	No. of Students doing Organisation project	Percentage of student(%)
2016-17	242	5	2.0
2015-16	216	4	1.8
2014-15	226	7	3.1
2013-14	245	00	00

23. Awards/Recognitions received by faculty and students

Faculty Achievement (From Academic year-2013-14 to 2016-17)

Sr. No	Name of Faculty	Awards/Recognitions/Appreciation
1	Mr. Harsh Bhor	“Maharashtra State Engineering Design National Award” Second Prize in the 19th ISTE Students National Convention held at VIT University, Vellore(T.N.) during 15th & 16th October,2016.
2	Mrs.Vaishali Gaikwad	She has been awarded as "Best Promising Teacher for Student Engagements in Technical & Innovative Activities" by the professional body, The Institution of Engineering and Technology (IET) on 24 th Sept.2016. Recognition of her role as mentor for NPTEL online Certification course security –II, Jan-March 2016
3	Mr. Harsh Bhor	Recognition of his role as mentor for NPTEL Online Certification course Programming, Data Structures and Algorithms , Jan-March 2016.
4	Mrs.Sarita Rathod	Recognition of her role as mentor for NPTEL Online Certification course(s) Artificial Intelligence: Knowledge representation and reasoning , Jan-April 2016and Introduction to Machine Learning , Jan-April 2016.
5	Mr.Prashant Sawant	Recognition of his role as mentor for NPTEL Online Certification course Introduction to Haskell Programming , Jan-March 2016. Recognition of his role as mentor for Big Data &Hadoop Internship Program, Msys Tech India Pvt Ltd .Sept-2015 to March-2016
6	Mr Uday Rote	Recognition of his role as mentor for Big Data &Hadoop Internship Program, Msys Tech India Pvt Ltd .Sept-2015 to March-2016

Student Achievement (From Academic year-2013-14 to 2016-17)

Sr. No	Name of Participant	Co-ordinated By (Venue/Association with)	Date	Prize
1	Hiren Chauhan	South ASIA eve-Creative Expressions	2-10-2015	First Prize
2	Nilesh kulkarni	“Maharashtra State Engineering Design National Award” in the 19th ISTE Students National Convention	15th & 16th October, 2016	Second Prize
3	Janye Lochan			
4	Akash Gawas			
5	Jay Lakhani	Monster India Member (Level 1 &Level2)	25-07- 2015	Passed Android Certificate
6	Murtaza Zaveri	Farmer Software Project at Sameerwadi	Sept-15	Project Completion Certificate
7	Archana Rajshirke	Fencing Championship	10-05-2014 to 11-05-2014	Third Place

8	Rujutha Shetty	Streetplay	16-02-2015	Winner
9			18-02-2015	Second
10			16-08-2015	Third Prize
11	Shashankit Thakur Sujit Singh PurvishaKhunt ShrenikAshar TanvishThakkar	Nurturing Intelligence for Curious Engineers	13-09-2015	Runner up at regional level
12				
13				
14				
15				
16	Vipul Shah	Technical Paper Presentation	5/2/15	Second Prize
17	DhavalGherwada			
18	HirenChauhan	Nurturing Intelligence for Curious Engineers	Sept 2014	Winner At Regional level
19	Tejas Shah			
20	Chaitrali Rane			
21	Raveena Rana			
22	Pushkar Gavandi			
23	Aakanksha Kadam			
24	VaibhaviRane			
25	MayurShelar	“Nurturing Intelligence for Curious Engineers”	27 th & 28 th Sept 2014	Runner up at regional level
26	Urvisha Patel			
27	AkshataYeole			
28	SayaliSurve			
29	RohitChaudhari	Volleyball Tournament	SCORE 2014	First Prize
30	VimalChaubey			
31	JitendraAgarwal			
32	ShashankChaurey			
33	Rohit Chaudhari	Carrom Doubles Mix Tournament at KJSIEIT	SCORE 2014	Second Prize
34	RohitChaudhari	National Level Technical Paper Presentation On Authentication Scheme For Session Password Using Paired Base Authentication Scheme	24-08-2013	Second Prize
35	VimalChaubey			
36	JitendraAgarwal			

37	SwardaApraj	National Level Technical Paper Presentation On Smart Bot,A Virtual Help Desk Chat Bot	7-3-2014 TO 2-3-2014	FIRST RUNNER UP
38	RutajaBhagat			
39	Shashank Chaurey			
40	RohitChaudhari	National Level Technical Paper Presentation On Authentication Scheme For Session Password Using Paired Base Authentication Scheme	07-03-2014	2ND RUNNERUP
41	VimalChaubey			
42	JitendraAgarwal			
43	Madhua Shekdar	National Level Technical Paper Presentation On Smart Car Parking Using RFID Technology	17-10-2013	3RD PRIZE
44	RuksarSayed			
45	AkshayPrajapati			
46	JagdishYadav	National Level Technical Paper Presentation On Biometric Attendance With GPRS Technique Using Android	17-10- 2013	3RD PRIZE
47	AfzalShaikh			
48	DhavalYadav			

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Date	Name of academician/scientist/visitor	Purpose
1	26/07/2016	Dr.HaroldD'costa,CEO of Intelligent Quotient Security System.	Seminar on Cyber Security
2	2/09/2016	Mr.TarunAryaB.Tech,MBA(FM S- Delhi), Operations Head Mumbai.	Guest Lecture on "Network Technology"
3	17/09/2016	Dr.HaroldD'costa,CEO of Intelligent Quotient Security System.	One day workshop on "Cyber Crime Investigation"
4	17/09/2016	Mr.ShashankVajpai, Consultant Senior, Cyber Security at EYLLP Mumbai.	One day workshop on "Virtualization"
5	17/09/2016	Dr.A.K.Rastogi,IIT Professor,Civil Engineering Department	Celebration of Engineer's & Teacher's day
6	30/09/2016	Mr.KamdarMiten,SAP Business Intelligence –Utilities Sector,BusinessWarehouse,Accent ure,Mumbai	Guest lecture "Data Modelling and Business Intelligence
7	30/09/2016	Mr.Rajesh Bhatt, Regional Head, IET, Mumbai.	Guest lecture "Recent Trends in IoT
8	03/10/2016	Mr.Prashant Nair, Managing Director, Cognito IT Consulting Pvt. Ltd, Mumbai.	Guest lecture "Interactive session on industry requirements

9	04/10/2016	Mr.NavnathMemane,iOS Faculty,Co-founderofApprisstaSoftwares Pvt Ltd Company,Thane,Mumbai	Guest lecture on“Mac OS &iOS”
10	13/10/2016	Mr.ShirishChitte, CEO, Lemin IT Solution Mumbai.	Guest lecture on “Software Architecture & Software Project Management”
11	20/8/2016	Dr Uday Khedker, Professor, CSE IIT-B	Research Methodology session
12	21/09/2016	Dr.PreetiPatil, Professor CSE,KIT,Kolhapur	As an External academic audit for (Computer &ITdept.)
13	01/08/2015	Mr.ANEESH VINEET PAGNIS, Senior Executive-IT, ZycusInfotech, Mumbai	One Day Workshop on “Ubuntu Applications and Products”
14	01/08/2015	Mr.PrafulMayekar, Executive Vice President,FuturismTechnologies,Pune.	Seminar on“Software Development-An Industry Perspective”
15	14/08/2015	Mr.AmitKalyanpur, MBA-Operations, B.Com, Seed Infotech ,Mumbai	Guest Lecture on “Importance of Aptitude
16	22/08/2015	Dr.AbhijatVichare,Consultant,Abhijat Research &Software,Pune.	One Day Workshop on “Ubuntu Awareness and Network Administration”
17	26/08/2015	Dr.SmitaAkale, M.D.Psychiatry, M.Sc. Psychotherapy & Counselling, Mumbai	Guest Lecture on“What Stopping You?”
18	28/08/2015	Mr.VimalChaubey, Associate System Engineer, Tata Consultancy Services(TCS), Mumbai.	Guest lecture on “Data Warehouse & Mining
19	05/09/2015	Mr.ShekharSanyal, National Country HeadIET,India	National Symposium On “Evangelizing Internet of Things(IoT)”
20		Mr.Vineeth Vijay raghavan, Founder, Solarian Foundation	
21		Mr.Amish Shah, Principal Architect, Tech Mahindra	
22		Mr.AshishBedekar, Head IOT Labs, MediaTek	
23	05/09/2015	Mr.AnujAshokan, TSDSI Working group, Chair-M2M Technology	National Symposium On “Evangelizing Internet of Things(IoT)”
24		Mr.JoyRajan, Sr.VP Business Services, Vodafone India	
25	05/02/16	Mr.PrashantNair,Senior Subject Matter Expert, MSys Tech IndiaPvt.Ltd,	Seminar on“BigData&Hado op”
26	02/03/16	Mr.AchyutGodbole, Famous Writer	IT Yesterday today and Tomorrow, National Science Day Celebration
27	06/04/16	Mr.SandeepJ.Gupta,Founder,Study Circle,Mumbai.	Guest Lecture on“Role Of Programming in Future”

28	02/05/2016 to 07/05/2016	Mr. Vikrant Sathe, Senior Project Lead, FIET, IBM, India	FDP on “IoT: Applications & Developments”
29		Mr. Bhupesh Daheria, CEO, Aegis School of Data Science Trustee Aegis Knowledge Trust	
30		Mr. Avinash Magdum, GM, Quality at Harbinger Systems	
31		Dr. Saurabh Mehata, Professor And Head Of The Department, VIT, Mumbai	
32		Mr. Parag Phakatkar, Sr. Engg. Aries Communication Pune	
33		Mr. Vaibhav Dantale, Information Architect- Cloud Business Innovation Center, IBM, Pune	
34	24/7/2015	Mr. Freddy Dinshaw, Senior Member of IET Mumbai LN, MIET.	Nurturing Intelligence for curious Engineers’ (NICE-2k15) National Level Technical Paper Presentation Competition
25	10/9/2015	Mr. S. M. Vaidya, Vice President, Aerospace Department, Godrej, Vikhroli, Mumbai	Chief guest of Technical festival
36	19/9/2015	Shri. S. S. Shinde, Joint Municipal Commissioner of Police	Engineer’s Day Celebration
37	06/01/2016	Dr. Larry Walker, Emirates Professor, Cornell University, London	IoT in the field of agriculture
38	06/01/2016		Career opportunities for engineering students
39	19/01/2016		Graduation Day ceremony guest.
40	8/1/15	Dr. R. V. Shegaonkar, Director IIT-Delhi	NPTEL Awareness session
41		Dr. Ananth, Professor, IIT-Delhi	
42		Dr. Prathap Haridoss, NPTEL Coordinator, IIT-Delhi	
43		Mrs. Deepa Venkatraman, IIT-Madras	
44	9/2/2016	Dr. Vasundhara Padmanabhan, Principal, K. J. Somaiya Comprehensive College of Education, Training and Research, Vidyavihar, Mumbai	Workshop on Blooms Taxonomy
45	10/2/2016	Mrs. Kalpana Karade, Assistant Professor, K. J. Somaiya College of Education	Taxonomy Knowledge
46	20/02/2016	Divya Thumpi, Emotional Intelligence Practitioner	Increasing Productivity of Academicians

47	25/04/2016	Dr.VijayJoshi,Principal,K.J.SomaiyaScience College	NAAC Process, Criteria and Audit Workshop
48	25/04/2016	Dr.VilasKarjinni, Principal, KIT College of Engineering,Kolhapur	
49	26/04/2016 to 29/04/2016	Dr.Suyog Kumar Vijay Taralkar, MIT Academy of Engineering, Alandi Pune	
50	19/07/14	Mr.Parag Amin, Associate Dean, SIES College of Management Studies, Navi Mumbai	Soft Skills for Developing Positive Work Environment
51	30/07/14	Dr.Maheshwar Sharon, Eminent scientist, IITB	National Science Day
52	30/07/14	Mr.L.E.D'Cruz,Eminent scientist,IITB	National Science Day
53	31/07/14	Mr. Vivek Nagpaul, Mr.Dick Heezius, Netherland	Workshop on "Education Entrepreneurship & Management"
54	11/09/14 & 12/09/14	1.Mr.Nikhil Kathuria,Sr.Android Consultant 2.Mr. Ravishchandra Gupta,Sr.Net Trainer ATSI InfoTech,New Delhi	Workshop on "Android Application Development"
55	12/09/14 & 13/09/14	1.Mr.Pratish Palatth Chief, 2.Mr.Alpesh Jain,.netExpert, 3.Mr.Samuel Endegiri, Marketing Head, Klubl, Mumbai	Workshop on "Digital Media Marketing"
56	12/09/14	1.Ms.Nikita Belavate Facilitator for FOSS Philosophy 2.Mr. Saurabh Mehta Facilitator for Technical Session,FSMM	Seminar on "Free Open Source Software"
57	11/09/2014	Mr.Pranabbose ,IIT	Seminar on "Ethical Hacking"
58	30/01/2015	Mr.Hiren Rathod, Head of Business Development & Senior Counsellor, Imperial Overseas Educational Consultants,S. V. Road,Santacruz(w),Navi Mumbai	Guest lecture on "Information about Abroad Studies".
59	26/02/2015	Mr.VimalChaubey, Associate System Engineer,,Tata Consultancy Services(TCS), Mumbai.	RAID Technology implementation & Software Security
60	03/03/2015	Mr.Kalpesh Modi, Assistant Professor, Department of Information Technology, Xavier Institute of Engineering, Mahim, Mumbai.	Advance Parallel Processing
61	11/03/15	Mr.Ghazfer Khan,Sr.Consultant, Techacalyst Company,Andheri,Mumbai	Guest lecture on "SAP: Systems Applications and Products"

62	17/03/15	Mr.NitinBiradar, Sr.Consultant, Techacalyst Company, Andheri, Mumbai	Enterprise Resource Planning Systems”
63	13/03/15	Mr.PrashantPanchal,Software Engineer, ZycusInfotechSeepzSez, Andheri(E),Mumbai.	Network Simulator 2 with Routing Algorithms
64	19/03/15	Mr.MaheshKolhe, Software Engineer & Analyst, Accenture,Vikhroli,Mumbai.	Applications of Business Intelligence in Industry
65	13/03/15	Mr.Mitesh Shah, Sr. Software Engineer, LoyltyRewardz Management Private Limited, Mumbai.	Basics of SDLC (Software development life-cycle)&Tier/Layer Architecture
66	15/03/13	Ms.NilamShete,Sr.Analyst Sutherland Global Services,Mumbai.	Guest lectures on NLP Trends (% Big Data Analytics).
67	18/03/13	Mrs.Gresha Bhatia, HOD-COMPUTER, VESIT, Chembur Mumbai:400074	Guest lectures on Database security
68	28/03/13	Mr.Nilesh Patwardhan, Sr.Consultant Deloitte India, Fairmont, Level 2 High Street, Hiranandani Gardens, Powai, Mumbai: 400076	Guest lectures on Enterprise Middleware Technologies (MS’s Biz Talk Server)
69	28/03/13	Mr.UmeazKheradia, Math Faculty & Marketing Coordinator Score Plus Academy Pvt.Ltd.,ThePrincetonReview,Western India	GuestlecturesonGRE preparation
70	29/03/13	Mr.Lakshmana Kumar Yeddu, Sr. Consultant, Sogeti India-PLM, Capgemini Consulting India Pvt Ltd,M7,Godrej IT Park, Pirojshanagar,L.B.S.Marg, Vikhroli(West), Mumbai 400079	Guest lectures on Oracle SOA
71	23/09/13	Mr.DnyaneshwarN.Ingale, Technical Lead,WiproLtd.Navi-Mumbai.	Guest lecture on “Ubuntu basics & career opportunities”

25. Seminars/Conferences/Workshops organized & the source of funding

a) National

Sr. No	Date	Seminars/Conferences/Workshops	Source of Fund
1	03/09/2016	NICE competition	IET
2	30/09/2016	Conducting Entrance exam for E-Yantra	Institute
3	15/10/2016	online exam for internship of“IQSS”	Institute
4	05/09/2015	National Symposium On “Evangelizing Internet of Things (IoT)”	IET

5	02/05/16 to 07/05/16	FDP on “IoT: Applications & Developments”	Institute
6	10/11/14 to 14/11/14	STTP on “Cloud Computing and BigData Analytics”	Institute
7	30/07/14	Launching of “IET-NICE”	IET
8	27/09/14 & 28/09/14	IET-Nurturing Intelligence for Curious Engineers- NICE-2K14 Regional & State Level Competition	IET
10	5/05/14 to 16/05/14	Faculty Development Program On “Research Methodology for PhD Aspirants”	Institute

b) International:

Sr. No.	Name of The Program	Date	Source of Funding
1	IET-PATW Paper Presentation Competition	April 2 and 4, 2013	Institution of Engineering and Technology, Mumbai LN
2	IET-PATW Paper Presentation Competition	1 st April 2017	Institution of Engineering and Technology, Mumbai LN

26. Student profile programme/course wise:

For cap Applications are received by DTE and not received or processed by KJSIEIT

Name of the Course/ programme	Type	Applica tions receive d	Selected/ Admitted				Total Selecte d (Admitt ed)	Enrolled		Pass %		
								*M	*F			
Bachelor of Information Technology 2016-17	(Centralized Admission Process) +J&K +TFWS +Minority +Transfer	NA	OPEN	SC	NT	OBC	34	55	13	CY		
		32	1	0	1							
	Against CAP	199	20				20					
	Against CAP Minority	76	14				14					
Bachelor of Information Technology 2015-16	(Centralized Admission Process) + J&K +TFWS	NA	OPEN	SC	NT	OBC	12	46	16	95.42 Admitt ed in 2011-12		
		12	0	0	0							
	Institute Level	460	12				12					
	Minority	276	31				31					
Against CAP	395	7				7						

Bachelor of Information Technology 2014-15	(Centralized Admission Process) + J&K +TFWS	NA	OPEN	SC	NT	OBC	12	27	19	97.10 Admitted in 2010-11	
	Institute Level	404	11	1	0	0					
	Minority	535	12			27	27				
	Against CAP	217	7			7					
	Against Minority		0			0					
Bachelor of Information Technology 2013-2014	(Centralized Admission Process) + J&K +TFWS	NA	OPEN	SC	NT	OBC	17	44	25	96.20 Admitted in 2009-10	
	Institute Level	310	16	0	0	1					
	Minority	487	11			11	28				28
	Against CAP	264	4			4					
	Against Minority		0			0					

27. Diversity of Students

Name of the Course	Academic Year	% of students from the same state	% of students from other States	% of students from abroad
IT	2016-17	95.5	4.41	NA
	2015-16	96.77	3.22	NA
	2014-15	96.55	3.44	NA
	2013-14	96.66	3.33	NA

28. How many students have cleared national and state competitive examinations such?

As NET, SLET, GATE, Civilservices, Defenseservices, etc.?

Sr.No.	Academic Year	No.of Students(Examination)		
		GRE	TOEFL	Civil Services
1	2015-16	2	2	1
2	2014-15	2	1	--
3	2013-14	3	2	--

29. Student progression

Student Progression	Against % enrolled							
	2013-14	%	2014-15	%	2015-16	%	2016-17	%
UG to PG	4	5.1	2	2.9	2	3.1	0	0
PG to M.Phil	NA		-		-		-	
PG to Ph.D	NA		-		-		-	
Employed-Campus Selection	32	40.35	26	34.09	44	68.89	52	64.29
Employed-Other than Campus Selection	29	37.50	12	16.0	4	6.06	0	0
Entrepreneur/Self Employment	3	3.79	1	1.5	7	10.9	0	0

30. Details of Infrastructural facilities

Sr. No	Infrastructural facilities	Details	Number
1	Library	No. of Titles	5502
		No. of Books	18587
		Journals, Magazines and Periodicals	36
		e-journals	500
	Department Library	Books	83
		Magazines	03 (IET and CSE magazines)
		University Question paper	Available in Dept. Library
		Term Test Question paper	Available in Dept. Library

2	Internet facilities for Staff & Students	24 hrs internet facility with bandwidth 56 Mbps leased line.	08 labs
3	Classrooms with ICT facility	classroom with Smart board	01
		class Rooms with LCD Projector Facility, Faculties are provided Laptops for interactive teaching.	02
4	Laboratories	Well Equipped	08

Total No. of Laboratories in the Department=8

Sr.No.	Laboratory Name	Laboratory No.
1	Wireless Networking	503
2	Image Processing	504
3	Programming Lab	505
4	Database Lab	701
5	ComputerCenter	703
6	Analog and Digital Circuit Lab	704
7	Open source technology	706
8	Cloud Computing and BigData	709

31. Number of students receiving financial assistance from college, university, government o other agencies:

Sr. No	Financial Assistance agencies/ Scholarship	No. of Students		
		2013-14	2014-15	2015-16
1	SC/VJNT/OBC/SBC Scholarship	25	12	7
2	EBC Scholarship	17	17	11
3	Minority CentralGovt Scholarship	--	02	

4	Minority State Govt Scholarship	19	24	--
5	Teacher Ward Scholarship	--	--	
6	TATA Scholarship	--	--	7
7	Helping Hand Fund	02	8	02
Total		63	63	27

32. Details on student enrichment programmes (special lectures /workshops/ seminar) with external experts

There are many guest lectures, seminars and workshops are conducted for the students. Details are given as follows,

Sr. No	Academic Year	Special Lectures/workshops/ seminar	External Experts
1.	04/03/2017 And 18/03/2017	Android Application Development	Pattalbab Rahat, CMP Infotech Mumbai
2.	16/07/16	PreProject Selection process	External form various industries PAN Mumbai
3.	26/07/16	Expert talk on“CyberSecurity”	Dr.HaroldD'Costa, CEO of Intelligent Quotient Security System
4.	06/08/16	Mock Placement sessions BE Students	Alumni: Archana Rajshirake, Jugal Shah, Niravkumar Patel, Chaitrali Puroo
5.	02/09/16	Guest Lecture on“Network Technology”.	Mr. Tarun Arya, B.Tech, MBA(FMS-Delhi), Operations Head. Mumbai.
6.	02/09/16	Awareness Seminar on “Networking & Cyber Security”.	Mr. Ajitesh Gadwe, Mr. Moin Masurkar, KJSIEIT, Mumbai
7.	17/09/16	One day workshop on“CyberCrime Investigation”	Dr.HaroldD'Costa, CEO of Intelligent Quotient Security System
8.	17/09/16	One day workshop on“Virtualization”	Mr. Shashank Vajpai. Consultant Senior. Cyber Security at EY LLP, Mumbai.
9.	30/09/16	Guest lecture“Data Modelling and Business Intelligence”	Mr. Kamdar Miten, SAP Business Intelligence –Accenture, Mumbai.
10.	30/09/16	Guest lecture“Recent Trends in IoT”	Mr. Rajesh Bhatt, Regional Head, IET, Mumbai.
11.	03/10/16	Guest lecture“Interactive session on industry requirements”	Mr. Prashant Nair, Managing Director, Cognito IT Consulting Pvt.Ltd, Mumbai

12.	04/10/16	Guest lecture on“MacOS&iOS”	Mr.NavnathMemane,iOS Faculty, Co-founder of ApprisstaSoftwares Pvt Ltd Company, Thane,Mumbai.
13.	13/10/16	Guest lecture on“Software Architecture & Software Project Management”	Mr.ShirishChitte, CEO, Lemin IT Solution,Mumbai.
14.	22/10/16	Industrial Visit to “Monorail”, Mumbai	Mr. Deepak Savratkar, Project Head, Monorail, Wadala,Mumbai.
15.	13/01/2016	How to prepare career in industry	Ravsinghgandhi
16.	20/01/2016	Career management and industry awareness	ShahrukhBalsara
17.	17/02/2016	How to crack aptitude	ShirishYadav
18.	13/02/2016	How to prepare for group discussion and PI	Mrs.VaishaliGhadyalji,Mrs. Vrishali Deole and Mr.G.R.Phadke
19.	9/3/2016	How to prepare for logical reasoning	Gavin Fernandis
20.	16/3/2016	Quantitative maths in aptitude	RohanRawal
21.	13/01/2016	Team Building	Mrs.Manisha Sridhar
22.	20/01/2016	Gate Preparation	Mrs.Rucha Sharma
23.	17/02/2016	Aptech Education	Mr.Sudhir Kumar Maurya
24.	13/02/2016	Project Management	Mr.ArvindKesalkar
25.	9/3/2016	Opportunities in IT fields	Mr.Bhanushali
26.	16/3/2016	Scholarships and loans for educational abroad	Mr.ManojPatki
27.	30/3/2016	Aptitude Cracking	Students of KJ SomaiyaVidyavihar
28.	01/08/15	One Day Workshop on“Ubuntu Applications and Products”.	Mr.ANEESH VINEET PAGNIS, Senior Executive-IT,ZycusInfoTech,Mumbai
29.	01/08/15	Seminar on“Software Development-An Industry Perspective”.	Mr.PrafulMayekar, Executive Vice President, Futurism Technologies, Pune.
30.	14/08/15	Guest Lecture on “Importance of Aptitude” for Students of TE & BE IT Dept.	Mr.AmitKalyanpur, MBA Operations, B.Com, Seed Infotech,Mumbai
31.	22/08/15	One Day Workshop on “Ubuntu wareness and Network Administration”.	Dr.AbhijatVichare, Consultant, Abhijat Research &Software,Pune.
32.	26/08/15	Guest Lecture on “What Stopping You?” for Students of IT & Comp Dept.	Dr.SmitaAkale, M.D.Psychiatry, M.Sc. Psychotherapy & counselling, Mumbai.

33.	28/08/15	Guest lecture on“Data Warehouse & Mining” for Students of TE-IT.	Mr.VimalChaubey, Associate SystemEngineer, TCS,Mumbai.
34.	30/01/16	One day IVOn“Satellite Communication”	BSNL,Thane
35.	05/02/16	Seminar on“Big Data &Hadoop”for SE,TE& BE.	Mr.Prashant Nair, Senior Subject Matter Expert, MSys Tech IndiaPvt.Ltd,
36.	02/04/16	One day IV to“Train Management System”	Mr. VinodAgarwal,Senior Divisional Signal & Telecommunication Engineer
37.	06/04/16	Guest Lecture on“Role of Programming in Future”	Mr.SandeepJ.Gupta,Founder, Study Circle,Mumbai.
38.	23/08/14	Placement Preparation	Mr.KetanGaikwad
39.	31/07/14	Careers in IT	Mr.DevZala
40.	08/08/14	personal Interview	Mr. YatiDoshi
41.	19/07/14	GDPI	Ms.SuchitraSurve
42.		Group Discussion and personal Interview	Mrs.Vaishali G. Mrs.Vrushali D. Mrs. Rama K
43.		Quantitative preparation	Mr.RohanRawal
44.	23/08/14	Training and placement-Mock Placement	GauravBhor, KulsumSayed, ShivangDoshi, PragyaRai, Swati, Shivangi, Ankita
45.	31/07/14	Workshop on“Education Entrepreneurship &Management”in Association with Euro Asian Network	Mr.VivekNagpaul, Mr.DickHeezius,Netherland
46.	08/08/14	Workshop on awareness of cyber Crime & Security”	Mr.VikasNaik
47.	19/07/14	Workshop on “INSPECT Digital Library ”in Association with IET	Mr.SujanShekhar
48.	23/08/14	Industrial Interaction in Railway Workshop	Mr.S.Rathod
49.	23/08/14	Workshop on“WebDevelopment”	Shyamal V.,Kavita B.,Devidas G.
50.	15/03/14	Workshop on“Creativity Lateral Thinking & Innovation”	Mr.SachinKarve
51.	11/09/14 & 12/09/14	Workshop on“Android Application Development ”in Association with IET	1.Mr.Nikhil Kathuria, Sr.Android Consultant 2.Mr.Ravishchandra Gupta,Sr.Net Trainer, ATS InfoTech,New Delhi
52.	March14	Industrial Interaction with Crompton Greaves Limited	Mr.HemantAyyar

53.	11/09/14	Workshop on “Cast Your Web”	1.Mr.Vyankatesh Charakpalli, 2.Mr.Yashesh Bharti, Student Department of IT
54.	12/09/14& 13/09/14	Workshop on“Digital Media Marketing”in Association with IET	1.Mr.Pratish Palatth,Chief, 2.Mr.Alpesh Jain, .net Expert, 3.Mr. Samuel Endegiri, Marketing Head, Klubl
55.	12/09/14	Seminar on“Free Open Source Software”	1.Ms.Nikita Belavate, 2.Mr.Saurabh Mehta, FSMM
56.	11/09/14	Seminar on“Ethical Hacking”	Mr.Pranabbose(IIT)
57.	12/09/14	Seminar on“Java Programming”	DhanilVira, Jigar Mehta
58.	30/01/15	Guest lecture on“Information about Abroad Studies”.	Mr.HirenRathod, Head of Business Development & Senior Counsellor Imperial Overseas Educational Consultants
59.	26/02/15	RAID Technology implementation & Software Security	Mr.VimalChaubey, Associate System Engineer, TCS Mumbai.
60.	03/03/15	Advance Parallel Processing	Mr.KalpeshModi, Assistant Professor, Department of Information Technology, Xavier Institute of Engineering,
61.	11/03/15	Guest lecture on“SAP:Systems Applications and Products”	Mr.Ghazfer Khan, Sr.Consultant, Techacalyst Company
62.	17/03/15	Guest lecture on “Enterprise Resource Planning Systems”	Mr.NitinBiradar, Sr.Consultant, Techacalyst company
63.	13/03/15	Guest lecture on “Network Simulator 2 with Routing Algorithms”	Mr.PrashantPanchal, Software Engineer, ZycusInfotechSeepzSez, Andheri(E), Mumbai.
64.	19/03/15	Guest lecture on“Applications of Business Intelligence in Industry”	Mr.MaheshKolhe, Software Engineer & Analyst, Accenture
65.	23/03/15	Guest lecture on“Basics of SDLC (Software development life-cycle)& Tier/Layer Architecture”	Mr.Mitesh Shah, Sr.Software Engineer, LoyltyRewardz Management Private Limited,Mumbai.
66.	20/08/13	Seminar on establish LAN set-up and do sharing for stuffin laboratory sessions.	Mr.Saurabh Shah, MS graduate student at NYU, Brooklyn, Alumnus of 2K12 batch.
67.	15/03/13	Guest lectures on NLP Trends (c/oBig Data Analytics).	Ms.NilamShete, Sr.Analyst Sutherland Global Services,Mumbai.

68.	18/03/13	Guest lectures on Database security	Mrs.GreshaBhatia,Hod-Computer, VESIT, Chembur Mumbai: 400074
69.	28/03/13	Guest lectures on Enterprise Middleware Technologies (MS'sBiz Talk Server)	Mr.NileshPatwardhan, Sr.Consultant Deloitte India
70.	28/03/13	Guest lectures on GRE preparation	Mr.UmezKheradia, Math Faculty & Marketing Coordinator Score Plus Academy
71.	29/03/14	Guest lectures on Oracle SOA	Mr.Lakshmana Kumar Yeddu, Sr. Consultant, Sogeti India-PLM, Capgemini Consulting
72.	22/08/13	Seminar on“Networking basics	GauravBhor,IT Alumnus 2k13 Batch KJSIEIT, Mumbai
73.	03/09/13	Seminar on networking devices & architecture	KapishAgrawal,IT Alumnus 2k13 Batch JSIEIT,Mumbai
74.	23/09/13	Guest lecture on“Ubuntu basics & career opportunities”	Mr.DnyaneshwarN.Ingale,Technical Lead,WiproLtd.Navi-Mumbai.
75.	08/10/13	Guest lecture on “Java & Android development”	Mr.RahulSalvi, Territory Marketing Manager, Seed Infotech, Navi-Mumbai

33. Teaching methods adopted to improve student learning:-

Academic Year 2013-14

- Use of PPT and multimedia
- Conduction of Guest lectures, workshops, seminars
- Regular conduction of group discussion and mock viva sessions during the semester for increasing the active involvement of students

Academic Year 2014-15

- Learning through seminars/ workshops under professional chapters such as IEEE, CSI, IET, IEL, IETE and ISTE

Academic Year 2015-16

- NPTEL e-learning Material for teaching(video lectures)
- Extensive use of ICT through Google classrooms, Google Apps.
- Course attainment calculations.

Academic Year 2016-17

- Started using Smart board and Office
- Facilitate students with an internship under external agencies to address the industry institute gap.
- Continuous evaluation with Microanalysis.

34. *Participation in Institutional Social Responsibility (ISR) and Extension activities*

Department of Information Technology faculty, staff and students participated in all ISR and Extension activities mentioned in criteria 3 and 7.

35. *SWOC analysis of the department and Future plans:-*

Strengths

- Well qualified and motivated faculty.
- Well-equipped laboratories with extensive use of open source software.
- Good on-campus placements for the students.
- Many co-curricular and extra-curricular activities for value addition.
- Extensive use of ICT and OBE.

Weaknesses

- Research Patents deficiency.
- No PhD in the department.

Opportunities

- Improvement in R&D activities and internships with MOUs with premier industries.
- More interaction with alumni network for institute growth.
- Maximum utilisation of professional bodies supports for skill set improvement.

Challenges

- Market driven admission is hampering student quality.
- Faculty retention is a challenge.

Future Plans

- To start PG programme.
- To sign more MoU with the industries for student's internships and projects.
- Organise more training program/workshop/seminar and conferences utilising strong alumni network.

**Evaluative Report of
Department of Electronics Engineering**

1. Name of the department: Electronics Engineering

2. Year of Establishment: Academic Year 2004-2005 with intake of 60

3. Names of Programmes / Courses offered:
UG, Bachelor of Engineering (Electronics Engineering)

4. Name of Interdisciplinary courses and the departments/units involved:

Name of Interdisciplinary Courses				
Subject Code	Subject Name	Semester	Academic Years	Supporting Department
EXS301	Applied Mathematics-III	III	Every Year	Basic Science & Humanities
EXS401	Applied Mathematics-IV	IV	Every Year	Basic Science & Humanities
EXS506	Business Communication and Ethics (BCE)	V	Every Year	Basic Science & Humanities
EXL304	Object Oriented Programming Methodology	III	2014-2015	Computer Engineering

5. Annual / Semester / Choice based credit system (programme wise):

- Up to A.Y. 2011-15 batches, it was Semester/ Marks Based System.
- For the 2012-16 batches, Semester/ Credit based grading system started.
- Choice based credit and grading system is introduced from A.Y. 2016-17 by University of Mumbai for First year Engineering
- Currently, results are declared semester wise. The performance of learner in a semester is indicated by semester grade point index or SGPI. Promotion to higher class is based on combined result of semesters in a particular year.
- At the end of four years there will also be a final cumulative grade point index CGPI calculated which considers all credits earned by learner specified for the particular programme.

6. Participation of the department in the courses offered by the other departments:

Course Code	Course Name	Semester	Academic Years	Offered to (Dept. Name)
FEC105	Basic Electrical & Electronics Engineering	I	Every Year	Basic Science & Humanities
FEC205	Structured Programming Approach	II	2015-2016, 2014-2015	Basic Science & Humanities
CPC701	Digital Signal Processing	VII	2016-2017	Computer Engineering
CPC604	Mobile Communication and Computing (MCC)	VI	2016-2017	Computer Engineering

Course Code	Course Name	Semester	Academic Years	Offered to (Dept. Name)
CSC403	Computer Organization Architecture(COA)	IV	Every Year	Computer Engineering
CPE8032	Embedded Systems	VIII	2013-2014	Computer Engineering
CPL701	Network Threats and Attacks Laboratory	VII	2016-2017	Computer Engineering
CSC306	Electronic Circuits and Communication Fundamentals	III	2016-2017, 2015-2016, 2014-2015	Computer Engineering
SEITC406	Information Theory and Coding	IV	2016-2017	Information Technology
SEITC403	Computer Organization and Architecture*	IV	2016-2017	Information Technology
ETL403	Software Simulation Laboratory	IV	2016-2017	Electronics & Telecommunication
ETC403	Microprocessors and Peripherals	III	2016-2017, 2015-2016	Electronics & Telecommunication
ETC405	Signals & Systems	IV	2015-2016	Electronics & Telecommunication

7. Courses in collaboration with other universities, industries, foreign institutions etc.:

- The institute is affiliated to University of Mumbai and there is no provision in Mumbai University to run such courses. However our faculty and students undergo online certification courses like NPTEL, Coursera etc.
- In 2016 few faculty and students of department attended NPTEL online certification, in different topics and scored good percentage.
- In June 2015 a one month certificate course on “**Digital System Design using HDL**” in association with C-DAC Hyderabad was conducted.

8. Details of courses/programmes discontinued (if any) with reasons:

Nil

9. Number of Teaching posts:

Teaching Posts	Sanctioned	Filled
Professor	1	1
Associate Professor	2	0*
Assistant Professor	9	11

*For 02 Faculty CAS (Career Advancement Scheme) promotion has to be implemented.

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M.Phil. etc.)

Sr. No.	Name	Qualification	Designation	Specialization	No. of years of Experience	No. of Ph.D. Students guided for 4 years
1	Dr.Milind U. Nemade	Phd, ME, BE	Professor and HOD	Microprocessor Applications	19	Nil
2	Prof. Vrinda P. Ullas*	ME, B.Tech	Assistant Professor	Electronics Engineering	20	NA
3	Prof. Vricha S. Chavan*	ME, MBA, BE	Assistant Professor	Electronics Engineering	19.5	NA
2	Prof. Ghanshyam R. Phadke	ME, MFM, BE	Assistant Professor	Electronics Engineering	15.6 + 16 = 31.6	NA
3	Prof. Ganesh B. Wadmare	ME , BE	Assistant Professor	Control System	12	NA
4	Prof. Sandhya D. Kadam	ME, BE	Assistant Professor	Electronics Engineering	12.4	NA
5	Prof. Devanand K. Bathe	ME, BE	Assistant Professor	Electronics Engineering	15 + 2 = 17	NA
6	Prof. Pankaj V. Deshmukh	BE ,ME	Assistant Professor	Electronics Engineering	11.6 + 1.6 = 13.2	NA
7	Prof. Sejal B. Shah	ME, BE	Assistant Professor	Electronics Engineering	9	NA
8	Prof. Mandar K. Bivalkar*	M. Tech, BE	Assistant Professor	Electronics and Telecommunication	14	NA
11	Prof. Sarika S. Bhosale	ME, BE	Assistant Professor	Instrumentation and Control	11	NA
12	Prof. Sandhya S. Deshpande	ME, BE	Assistant Professor	Electronics Engineering	11.7	NA

*: Three faculty pursuing PhD

11. List of senior visiting faculty: Nil

Institute has appointed qualified and experienced faculty as per norms of AICTE and approved by University of Mumbai

12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty:

Year:2016-17

Sr. No.	Faculty Name	Semester	Course Name	Course Code	Lectures Delivered		Practical classes Handled	
					No	%	No	%
1	Prof. NaeemSutar	V	Design of Linear Integrated Circuit	EXC-502	30	58%	10	100
		VII	Optical Fibre and Communication (Elective)	EXC-7054	40	77%	10	100

13. Student-Teacher Ratio (programme wise):

Programme	Name	No. of Students	No. of Teachers	Student-Teacher Ratio Filled
UG	Electronics Engineering	180	12	15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Sr. No.	Supporting staff	Filled
1	Lab Assistant	02
2	Technical Assistant	01
3	Skilled Assistant	01
4	Attendant	02

15. Qualification of teaching faculty with DSc/ D. Litt/ Ph.D/ Mphil/ PG:

Qualification of teaching faculty	Number
Ph.D	01
M.E./M.Tech	11

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grant received:

Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc and total grants received:

Department of Electronics Engineering received Minor Research Grant from University of Mumbai

Sr. No.	Name of Faculty (Principal Investigator)	Name of Funding Agency	Project Title	Grant Amount (Rs.)
2016-17				
1	Prof. Medha Asurlekar	University of Mumbai	GPS based Pollution Detection and Control System for Environment	25000/-
2	Prof. Sheetal Jagtap		Low Cost Self Assistive Voice Controlled Wheelchair for Disabled People	35000/-
3	Prof. Ganesh Wadmare		IoT based Maximum Solar Power Point Tracking System for Greenhouse Application	25000/-
2014-15				
4	Prof. Swati Khandare	University of Mumbai	OmnivisionQuadcopter	40,000/-
5	Prof. Vricha Chavan		Text to Speech Converter	25,000/-
6	Prof. Pankaj Deshmukh		Hybrid Bike	40,000/-
2013-14				
7	Prof. Sejal Shah	University of Mumbai	Jargon Authenticated Real Voice Identification System (J. A. R. V. I. S) for Home Automation	25,000/-

18. Research Centre / facility recognized by the University:

Nil

19. Publications:

a) Publications per faculty:

Sr. No.	Name	Total Publications Conference/Journal (National/International) (2010-2017)
1	Dr.MilindNemade	14
2	Prof.Devanand Bathe	01
3	Prof.GaneshWadmare	03
4	Prof.G.R.Phadke	03
5	Prof.MandarBivalkar	04
6	Prof.Sejal Shah	03
7	Prof. Pankaj Deshmukh	02
8	Prof.SarikaBhosale	02
9	Prof.SandhyaDeshpande	04
10	Prof.VidyaSagvekar	06
11	Prof. MedhaAsurlekar	03
12	Prof. Swati Khandare	02
13	Prof. SheetalJagtap	02
14	Mr. SudhirKasar	03
Total		52

***Number of papers published in peer reviewed journals (national/international) by faculty:** Refer above point no.19(a): Publications per faculty

Publications by students:

Sr. No.	Name	Total Publications Conference/Journal (National/International)
1	Sanket Deshmukh Pooja Jagdishan Anuksha Chandra Phalguni Raut	01
2	Kriti Bhandari Niranjana Raghavan Aditya Iyyer Niteen Autade	01
3	Saish Shinde Sayali Kadam	01
4	Jay Shah Jigar Suhagiya	01

5	Sagar Alande Ajita Chavan Soumi Sharma	02
6	Vidhi Nadar Amruta More Moniya Umbrey Krusha Rawal	02
7	Divyeshchandra Soni, Jigarkumar Suhagiya, Jay Shah	01
8	SangramMalekar, AkshayKolte, Rakesh More	01
Total		10

***Number of publications listed in International Database (e.g Web of Science, Scopus, Humanities International Complete, Dare Database- International Social Sciences Directory, EBSCO host, etc.): 01**

***Monographs: Nil**

***Chapter in Books: Nil**

***Books Edited: Nil**

***Books with ISBN/ISSN numbers with details of publisher: Nil**

However Dr. M. U. Nemade published books under local publication. Details are as given below

1. Published book on “*Principles of Computer Engineering*”, Publisher Name: VipulPrakashan, Girgaon, Mumbai in the year 1998.
2. Published book on “*Filter Theory*”, Publisher Name: VipulPrakashanGirgaon, Mumbai in the year 1999 (First Edition), 2001(Second Edition), 2003(Third Edition).
3. Published book on “*Computer Organization and Architecture*”, Publisher Name: VipulPrakashan, Girgaon, Mumbai in the year 2003.
4. Published book on “*Digital Computer Fundamentals*”, Publisher Name: VipulPrakashan, Girgaon, Mumbai in the year 2005.

***Citation Index: 0-10 (Google Scholar)**

***SNIP: Nil**

***SJR: Nil**

***Impact factor: 0.5 to 6.17**

***h-index: 0-2**

20. Areas of consultancy and income generated: Nil

21. Faculty as member in a) National b) International Committees c) Editorial Boards.....

Sr. No.	Faculty Name	Committee/ Professional Society/ Body/ Journal	Membership Type
1	Dr. M. U. Nemade	IJARFC	Editorial Board Member
		IJST	Reviewer
		ICNTE 2017	Technical Program Committee member (Reviewer)
		ICSPICC 2016	Technical Program Committee member (Reviewer)
		ICETCC 2017	Session Chair

*** University of Mumbai appointed few faculty on different academic committees. There details are as given below**

Sr. No.	Faculty Name	Committee	Details
1	Dr. M. U. Nemade	Member of the Vigilance Squad to the Examination Centers	University of Mumbai during First & second half of the year 2016
		Moderation Committee Member	Scrutinized the result of Engineering examination in Electronics Engg. & Electronics & Telecommunication Engg. In First and Second Half 2016
		Syllabus Revision Committee	Convener for Revision of syllabus of University of Mumbai for Second year subject of Electronics and Electronics and Telecommunication Engineering for the year 2017-18 and also for Third year 2017-18
2	Prof. VrindaUllas	Syllabus Revision Committee	Member for revision of Syllabus of University of Mumbai for Third Year subject of Electronics Engineering for the year 2017-18
3	Prof. Sejal Shah		Designed the curriculum within University framework for Mini Project-I and Mini Project-II for TE ETRX 2016-17
4	Prof. Pankaj Deshmukh		Member for Revision of syllabus of University of Mumbai for Second year subject and third year of Electronics Engineering for the year 2017-18
5	Prof. SarikaBhosale		

22. Student Projects:

a) Percentage of students who have done in house projects including interdepartmental/ programme

Academic year	No. of students on roll	No. of students doing in-house project	Percentage of students
2016-2017	69	69	100
2015-2016	66	56	84.84
2014-2015	73	70	95.9
2013-2014	64	64	100

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies

Academic year	No. of students on roll	No. of students doing organisation project	Percentage of students
2016-2017	69	00	00
2015-2016	66	10	15.15
2014-2015	73	03	4.1
2013-2014	64	00	00

23. Awards /Recognitions received by faculty and students:

Many faculty, technical supporting staff and students received awards/ letter of appreciations / recognitions in different activities. Few specific awards/recognitions received by faculty, staff and students are as given below.

Special Achievements of Student:

Mr. Kapil Goswami (BE Student) developed PIR based counter device. This is a PIR based device which sense the moment within a sensor range, and increments the counter and displays on a 4 digit 7 segment display. The main feature on this device is counter value stored in EEPROM memory so when we turn off device and later when we turn on device, counting starts from previous stored value, while in other microcontroller and similar devices it reset automatically after turn off.

The company “*Shivaay Enterprises*” required this kind of device for their application and **Mr. Kapil Goswami** received order of manufacturing and delivery of 100 quantities of this device. The cost of this device is decided as Rs.1000 per unit.

Mr. Gaurav Mishra and Mr. Raj Misal won the *Promising Presentation Award* at *ARM Design Contest 2016*, TVS IQL Anekal, Karnataka for presentation title "Cluster Braking System for Autonomous Vehicles" on March 26, 2017 organised by Advanced Computing and Communications Society.

Mr. Soumil Shah, Mr. Shailendra Jadeja and his team won *Second place cash prize of Rs. 15000/-* in National Level Project Competition "Story of Makers" held at Matunga, Mumbai.

Master Mihir Maniar, TE ETRX student has received *“Outstanding Performance for the Academic Year 2013-14-Student Category”* by Somaiya Trust on 56th Foundation Day Award on 9th Sept 2014 from among 37000 students of the Trust.

Special Achievements of Staff/Faculty:

Sr. No.	Academic Year	Name of Staff	Awards/ Recognitions /Appreciation
1	2016-17	Prof. Sandhya Kadam	Filed Permanent Complete Patent on “Cluster Based Cognitive Storage” Application No:201721009726
2		Mr.Sudhir Kasar	Appreciation for outstanding commitment in job & long and Dedicated association with the Somaiya Trust
3		Mr.Suresh Ubale	Appreciation for outstanding commitment in job & long and Dedicated association with the Somaiya Trust
4	2014-15	Prof. Sejal Shah	Appreciation for mentoring students project group for Texas Instruments India innovation Challenges 2015
5		Prof. Sarika Bhosale	
6		Prof. VrindaUllas	

Student Awards/Recognitions:

Sr. No	Name of Activity	Name of Participant	Co-ordinated By (Venue/Association with)	Date	Prize
1	ROBOCON 2016	Nikhil Anjane, Bharatesh Atman, SuyashChavan, Pratik Chavan,ChinmaySangekar	Robocon India in Association with Doordarshan at MIT, Pune	March 2-4, 2016	53rd Position (out of 85 teams participated)
2	ROBOCON 2017	Nikhil Anjane, Bharatesh Atman, SuyashChavan, Pratik Chavan, KetanBhadra, RishabGujarathi, AniruddhaSawant, Rajas Bhadkamkar	Robocon India in Association with Doordarshan at MIT, Pune	March 2-4, 2017	9th Position (out of 110 teams participated)

3	ACCS ARM India Design Challenge- 2017	Gaurav Mishra, Raj Misal	PES University, Bangalore	Sept. 8-11, 2016	Received commendation in finals
4	Technical Quiz	Ansari Shabaz Raj Misal	Xavier Institute of Engineering, Mahim, Mumbai	February 5, 2016	First
5	Avishkaar'16 Project Competition	Soumil Shah KapilGoswami	Xavier Institute of Engineering	February 6, 2016	Second
6	Second National Level Project Competition cum Poster Presentation	PrathmeshChavan VidyutHaryan SainathKapase AbhishekShetty	Universal College of Engineering	March 11,2016	First Runner up and cash prize
7	TPP: Quadcopter	Ankit Kumar Mishra, JayantMandhare	National Level TPP Competition,IET, KJSIEIT, Sion	February 27, 2015	Second
8	TPP: Text to Speech Converter	SagarAlande	GENOUS 2K15 DnananjayMahadik Group of Institutions VikaswaditalKagal, Kolhapur	March 4, 2015	First
9	TPP: Text to Speech Converter	SagarAlande	PRAGYAA 2K15 SGGSIET,Nanded	March 13 to 15, 2015	Second
10	Technical Paper Presentation	Soumil Shah	Pillai Group of Institution,NewPanvel	February 6, 2015	First
11	Technical Paper Presentation	MihirManiar Ankitishra JayantMandhare	Xavier Institute of Engineering, Mahim, Mumbai	January 27, 2014	First
12	Technical Paper Presentation	JayantMandhare	Universal College of Engineering	January 31, 2014	First

13	TPP: “Surface keyboard for android smart phones”	Soumen Das, Soham Donwalkar, Payal Agrawal	K. J. Somaiya college of Engineering, Vidyavihar	March 1, 2014	Second
14	Inter Volleyball, in SIESGST	Bhavesh Patel	SIES, Nerul, Navi Mumbai	February 13-15, 2014	First
15	Volleyball, in KJSCOE		KJSCOE, Vidyavihar, Mumbai	SKREAM 2014	First

24. List of eminent academicians and scientists / visitors to the department:

Sr. No.	Date	Name of Academician/Scientist/Visitors	Activity Name
01	February 22, 2017	Dr. Archana Bhise Professor, Mukesh Patel School of Technology and Engineering	Seminar on "Writing and Publishing Technical Paper"
02	January 24, 2017	Mr. Tukaram Mundhe Commissioner Navi Mumbai Municipal Corporation	Expert talk on "Career Opportunities for Engineering Students in Public Sector".
03	Oct. 6, 2016	Mr. G. D. Powar, L & T Pawai	Expert talk on "Defense Product and Product Development"
04	Sept. 30, 2016	Mr. Rajesh Bhat Regional Head IET, Mumbai	Guest lecture on "Recent Trends in IOT"
05	Aug. 27 and Sept. 3, 2016	Mr. Shital Chawre and Ms. Neena Padade, Engineers, Prolific Pvt. Ltd.	Two days workshop on PCB Design
06	Aug. 27 and 28, 2016	Mr. Nilesh Takare, Product Specialist, Mr. Prem Kumar, Application Engineer Capricot, Pune.	Two days hands on workshop on MATLAB
07	Aug. 24, 2016	Mr. Ankit Hajare Print O Make and Excel International Pvt. Ltd.	Workshop on 3D Printing
08	Aug. 22, 2016	Mr. Shirish Joshi, Director, ADM Pvt. Ltd. Andheri, Mumbai	Guest lecture on "Trends in Embedded Systems"
09	Aug. 10, 2016	Mr. Sagar Shetty from Ekta Niradhar Vikas Sangh, Working in L&T Volunteers Sagar Shetty	NGO General Awareness & Motivation Speech
10	July 27, 2016	Mr. Soumil Shah & Mr. Kapil Goswami	Awareness on Live Industrial Projects
11	March 19, 2016	Mr. Yaksh Raval, Research Assistant, IIT Mumbai	Expert lecture on VLSI Design: MOS Capacitor"
12	March 09, 2016	Dr. B. K. Lande, Director PVPPCOE, Chunnabhatti, Mumbai	Guest Lecture on “Challenges in Digital Communication”
13	February 02, 2016	Mr. Rohan Pai from SIMSAR	Expert talk on “Carrier Guidance”

14	November 17-21, 2015	Dr. Girish Kumar Professor, Electrical Engineering, IITB Chairman, Wilcom Technologies Pvt. Ltd.	STTP on “The New Generation 4G and 5G Innovations, Research, Scope and Limitations”
15	November 17-21, 2015	Dr. G. S. Tuteja, Chairman, IET, Mumbai Local Network	
16	November 17-21, 2015	Dr. Pratapsinh Desai Chairman, ISTE	
17	November 17-21, 2015	Dr. B. K. Lande Director, PVPPCOE, Sion	
18	November 17-21, 2015	Dr. Sibi Raj Pillai Professor, IITB	
19	November 17-21, 2015	Dr. Munir Sayyad General Manager, Jio, Reliance	
20	November 17-21, 2015	Dr. Kushal Tuckley Chairman, Director (R&D), AVG Systems Pvt. Ltd. November 2015	
21	Aug. 12, 2015	Mr. Gaurav Valecha from Nanosniff	Expert talk on “Introduction to MEMS & Core Electronics carrier Opportunities”
22	June 15-July 10, 2015	Mr. Vishal and Mr. Mohammad, CDAC, Hyderabad	STCC on "Digital System Design Using HDL"
23	February 17 and 18, 2014	Mr. Ameya Metangale, Assistant Manager-Technical Solution, ADCC Infocad Pvt. Ltd.	Workshop on MATLAB
24	January 18, 2014	Dr. Sourabh Mehta, Professor, VIT, Wadala	Workshop on "HAM radio"
25	Aug. 21, 2013	Mr. Yash Shah Godrej & Boyce Ltd. Vikroli.	Expert talk on “Programmable Logic Controller”
26	Sept. 16, 2013	Mr. Freddy Dinshaw from IET	Expert talk on “Embedded Systems & its Applications”
27	Sept. 25, 2013	Mr. Manpreet & Mr. Rohan IIT SINE	Expert talk on “Solar Energy”

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National:

Department of Electronics Engineering organized seminar/ workshop / STTP /STCC at state level and the details are given below

Sr. No.	Name of The Program	Date	Source of Funding
1	Workshop on ‘NAAC – Process, Criteria & Audit	April 26 to 28 2016	Parent Organization and through external registrations

2	Training Program “Repair & Maintenance of Laboratory Electronics Equipment”.	June27 to July 2, 2016	
3	National Symposium on “Evangelizing Internet of Things (IOT)”	October 5, 2015	Parent Organization and Institution of Engineering and Technology, Mumbai LN
4	Short Term Training Program on “The New Generation 4G and 5G Innovations, Research, Scope and Limitations”	November 17-21,2015	Parent Organization and through registrations
5	STCC on “Digital System Design Using HDL” Organized by CDAC conducted at KJSIEIT	June 15 to July 10, 2015	
6	2 weeks internship programme on Aduino	July 2014	Registration Fee
7	Embedded System Design Using ARM Cortex M3 (ESD)	December 29, 2014 to January 2, 2015	Parent Organization and through external registrations

b) International:

Sr. No.	Name of The Program	Date	Source of Funding
1	IET-PATW Paper Presentation Competition	April 2 and 4, 2013	Institution of Engineering and Technology, Mumbai LN
2	IET-PATW Paper Presentation Competition	April 1, 2017	Institution of Engineering and Technology, Mumbai LN

26 Student profile programme/course wise:

*M = Male *F = Female

\$. Indicate BE pass percentage of students admitted in respective academic year shown in bracket

Name of the programme	Year	Type		Admitted					Selected (Admitted)	Enrolled		Pass Percentage \$
				OP EN	S C	N T	O B C	S B C		* M	*F	
UG - Bachelor of Electronics Engineer	2016-17	(Centralized Admission Process) + J&K +TFWS	--						38	27	11	NA
				28	5	1	3	1				

ing	Against CAP	199	--	--	--	--
	Against CAP Minority	76	--	--	--	--

				OP EN	SC	NT	OB C				
2015-16	(Centralized Admission Process) + J&K +TFWS	--	26	5	0	06	37	32	17	86.15 (2012-13)	
	Institute Level	460	7			7					
	Minority	276	4			4					
	Against CAP	395	1			1					
	Against Minority		0			0					
	2014-15	(Centralized Admission Process) + J&K +TFWS	--	12	3	0	01				16
Institute Level		404	7			7					
Minority		535	17			17					
Against CAP		217	0			0					
Against Minority			0			0					
2013-14		(Centralized Admission Process) + J&K +TFWS	--	15	1	0	0	16	43	6	83.33 (2010-11)
	Institute Level	310	11			11					
	Minority	487	21			21					
	Against CAP	264	1			1					
	Against Minority		0			0					

27. Diversity of Students:

UG -Bachelor of Electronics Engineering	% of students from the same state	% of students from other states	% of students from abroad

2016-17	94.73	5.26	NA
2015-16	95.91	4.08	NA
2014-15	97.5	2.5	NA
2013-14	93.87	6.12	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Competitive Exam	No. of Students Appeared (2014-2016)
GATE	12
Indian Army	02
GRE	13
CET/ CMAT	02
TOEFL	06
IELTS	01

29. Student progression:

Student Progression	Against % enrolled				
	2016-17	2015-16	2014-15	2013-14	2012-13
UG to PG	NA	1.51%	23.53	34.29	28.26
PG to M.Phil	Not Applicable				
PG to PhD.		0	0	0	0
Ph. D to Post Doctoral	Not Applicable				
Employed	36.84	45.45	44.12	60.00	58.70
• Campus selection #					
• Other than campus recruitment *	--	11.88	48.89	52.5	55
Entrepreneurship / Self-employment	--	3.03	5.88	5.71	0.00

Out of eligible students

* Data collected from LinkedIn by mail and other sources

30. Details of Infrastructural facilities:

- a) **Library:** Department library situated in Room No. 207. This area is equipped with internet facility, two glass cupboards, tables and chairs for reading books. Library details are as given below

Sr. No.	Details	Quantity
1	Text Books	81
2	Competitive exam books	03
3	Project report	58
4	Synopsis of mini project reports	70

5	University Question papers	For every subject
6	University Question papers with solutions	For every subject
7	Term test question papers	For all subjects

b) Internet facilities for staff and students:

- Institute has 56Mbps leased high speed internet line provided by Vodafonecompany.
- Department has 24x7 internet and intranet facility to faculty, staff and students.
- All laboratories in the department equipped with computers and internet. Faculties, staff and students can access internet 24x7 in the laboratories.
- All classrooms in the department equipped with internet connection.
- HOD, Dean, T&P In-charge and Exam Cell In-charge provided with separate rooms equipped with white boards, computer with internet for discussion and counselling.
- Institute provided exclusive Somaiya Vidyavihar (SVV) mail id to all faculties, staff and students
- Department has online theory lectures and practical attendance filling and monitoring facility for faculties and staff.
- Institute has provided online filling of leave applications, outdoors /vacation form, getting salary statement and TDS calculations through SENSYS Software ESS login to all faculties and staff.

c) Class rooms with ICT facility:

Teaching aids available with the department are

- No. of LCD Projector:03
- No. of Laptops:03
- No. of classrooms with internet connection:03
- No. of digital boards in institute:02
- No. of Desktop computers:54 (Students intake 180(SE to BE))
- No. of Printers:08
- No. of Scanners:03(with printers) and one independent
- No. of servers:01
- No. of Network switches:06

d) Laboratories:

Sr. No.	Laboratory Name	Room No.
1	Digital Design	203
2	Instrumentation	205
3	Electronics Circuits	206
4	Network	207

5	Embedded Systems	208
6	Communication	102
7	Project	105
8	Language	802
9	Printed Circuit Board	401

10	Power Electronics	402
11	Basics of Electrical Engineering	403
12	Wiring lab	807

31. Number of students receiving financial assistance from college, university, Government or other agencies: Scholarship Details

Sr. No	Financial Assistance agencies/ Scholarship	No. of Students			
		2012-13	2013-14	2014-15	2015-16
1	SC/VJNT/OBC/SBCScholarship	23	20	19	29
2	EBC Scholarship	13	18	15	12
3	Minority State Govt Scholarship	4	5	7	7
4	Teacher Ward Scholarship	1	0	1	2
5	TATA Scholarship	0	0	0	0
6	Helping Hand Fund	4	10	5	0
Total		45	53	47	50

Note: In addition to above students receiving financial assistance under Minority Central Govt, Institute Merit Cum Means, Somaiya Scholarship for Girls, University EBC and ST scholarship

32. Details on student enrichment programmes (special lectures / workshops/ seminar) with external experts:

A few of the events we conducted are listed below:

Sr. No.	Year	Date	Topic	Name of the Guest faculty
1	2016-17	October 6, 2016	Defence Product And Product Development	Mr. G. D. Powar, L&T Powai
2		Sept. 9, 2016	Guest lecture on "Recent Trends in IOT"	Mr. Rajesh Bhat Regional Head IET, Mumbai
3		Aug. 22, 2016	Guest lecture on "Trends in Embedded Systems"	Mr. Shirish Joshi, Director, ADM Pvt. Ltd. Andheri, Mumbai
4		July 28, 2016	Placement Preparations	Mr. Ketan Gaikwad

5		August 23, 2016	Grooming for Placement	Ms.Apurva Desai, Ms.PriyankaPatil, Ms.Deepthy Nair, Mr. Meet Parikh
6		March 7, 2016	Adobe Photo Shop	Ms.Swapnali Jomraj National Head Sales , Veloces consulting services Pvt. Ltd.
7		February 02, 2016	Expert talk on “Carrier Guidance”	Mr. RohanPai from SIMSAR
8	2015-16	January 30, 2015	CMOS, VLSI Design	Dr. Jonathan Joshi, CEO & Founder, Eduhans, Mumbai
9		September 4, 2015	Seminar & Free Demo on 3D printer	Expert from ARK
10		17/8/2015	workshop on PCB Making & Design	Vidya Sagvekar and Sheetal Jagtap
11		21/09/2015	Workshop on MATLAB	Experts from Matlab
12		22/9 and 9/10 2015	Workshop on Robotics	Mr Karan Kamdar
13		7/2015	Projects through embedded systems	Dr. Jonathan Joshi
14		12/8/2015	MEMS	Gaurav Valecha(alumni)
15		4/02/2015	Music Synthesis and Processing	Mrs. Vinutha Shah and Anchor
16		14/03/2015	MOSCAP Fabrication and Characterization	Mr.Yaksh Rawal, (alumni)Research Assistant,EE Dept,IIT Bombay
17		14/03/2015	Nano LED	Mr.Maharaja Balpandi (alumni) Resarch Assistant,EE Dept,IIT Bombay
18	2014-15	August 6, 2014	Overseas education Opportunities	Expert from overseas education
19		September 12th, 2014	Web Designing	Prof. Kavita Bathe, Prof.ShyamalVernodkar Faculty, Computer Engineering , KJSIEIT
20		7 th & 8 th August 2014	workshop on “Microcontroller”	M.Maniyar, CEO RS Industrial Systems
21		Dec 2014	BHEL, Kirloskar Pumps Pvt. Ltd. and Anchor Switches.	Faculty and Students
22		27 th September	Latex	Mr. Sanjay Shitode, SNTD
23		12 August 2014	Career Opportunities in Embedded Systems	Mr. Shirish Joshi of ADM pl
24		July 2014	2 weeks internship programme on Aduino	ARK technologies

33. Teaching methods adopted to improve student learning:

2013-14

- Use of PPT based teaching
- Regular project progress presentations

2014-15

- Learning through seminars/ workshops under professional chapters such as IEEE, CSI, IET , IEI, IETE and ISTE
- Conduction of Industrial visits to provide practical exposure on subjects in the curriculum
- MOU signed with companies and for Internship and Projects.

2015-16

- Opportunities in live projects under different activities
- Conduction of crash courses and doubt solving sessions for weaker students
- Use of ICT and OBE based learning through Google classrooms
- Facilitating students with internship under external agencies to address the industry institute gap

2016-17

- Increase opportunities for projects through e-Yantra
- Lectures to help the weaker students
- Improved Continuous assessment
- Started use of smart board and Office to improve teaching learning process.
- Teaching and learning using on line courses like course era, NPTEL etc.
- Conduction of effective lecture session of 60 minutes with revision of previous lecture (5 min), Conduction of session (50 min) and summarization of session (5 min).

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Department of Electronics Engineering faculty, staff and students participated in all ISR and Extension activities mentioned in criteria 3 and 7.

35. SWOC Analysis of the Department and Future Plans:

Strengths

- Outcome based education system and student centric learning through ICT.
- Qualified and experienced faculty.
- Well-equipped laboratories.
- Active participation of students in extension and social activities.
- Involvement of faculty and students in development of collaborative projects and deployment of innovative projects for automation of the institute
- Acquisition of grant under minor research projects
- Embedded systems lab in collaboration with Industry

Weaknesses

- Declining interest of students in core areas of Electronics Engineering due to lack of good salary package.
- Poor Quality of Students as a result of above

Opportunities

- Interdisciplinary projects with other departments.
- Industry oriented training.
- Work collaboratively with major Institutions in research.
- An opportunity to interact with eminent personalities through various professional bodies.
- Scope to prepare students for higher studies.

Challenges:

- Result improvement.
- Low campus placement due to recession.
- Facility development for in-house internship, keeping pace with changing trends.

Future Plans:

- To establish infrastructure for academic and research activities with focus on signal processing, VLSI, Robotics and Embedded system in Electronics Engineering.
- To encourage faculty to publish paper in reputed peer reviewed high impact factor journals/conference and to upgrade qualification to Ph.D.
- Development of Center of Excellence.

Evaluative Report of

Basic Sciences and Humanities Department

1. **Name of the department:** Basic Sciences & Humanities
2. **Year of Establishment:** The department was established in the Academic Year 2001- 2002 with the increase in the intake as below, (i.e. FE intake capacity)

Sr.No	Academic Year	FE Intake
1	2001-02	150
2	2002-03	180
3	2003-04	240
4	2004-05	300

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., and Integrated Masters; Integrated Ph.D., etc.) :** UG (Bachelor of Engineering)
4. **Names of Interdisciplinary courses and the departments/units involved:**
Department is taking support from different departments

Name of Interdisciplinary Courses			
Course Name	Semester	Academic Year	Department Involved
Basic Electronics Engineering	I	2013-2017	EXTC/ETRX
Structured Programming & Approach	II	2013-2017	Computer/IT
Printed Circuit Board Lab	II	2013-2017	EXTC/ETRX
Hardware & Networking Lab	I	2016-2017, 2015-2016	IT /Computer
Wiring lab	I	2014-2015, 2013-2014	EXTC/ETRX

5. Annual/ semester/ choice based credit system (programme wise) :

- Choice Based Credit Grading System is introduced from 2016-17
- Credit system is introduced from 2012-2013 by University of Mumbai.
- Currently, results are declared semester wise. The performance of learner in a semester is indicated by semester grade point index or SGPI. At the end of four years there will also be a final cumulative grade point index CGPI calculated which considers all credits earned by learner specified for the particular programme.

6. Participation of the department in the courses offered by other departments:

Every year the following courses are offered to higher semesters all departments

Name of the Department	Subjects & Courses
Computer/IT/EXTC/ETRX Dept.	Applied Maths –III & IV
Computer/IT/EXTC/ETRX Dept.	Business Communication and Ethics-V

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Name of Industry/ University	Courses
IITs and ISCs (through NPTEL)	e-Courses and Video Lectures

8. Details of courses/ programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts

Teaching Posts	Sanctioned	Filled
Professors	01	01
Associate Professors	Nil	Nil
Asst. Professors	14	14

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of P h.D. Student
Dr.Suresh Ukarande	Ph.D. (Civil Engg)	Principal	Civil Engg	30 Yrs 8 Months	02 Completed & 05 ongoing
Dr. Harsha Mishra	Ph.D. (Applied Chemistry)	Assistant Professor	Organic Chemistry	17 Yrs 9 Months	Nil
Mr. Rajesh. Meshram	M.E(Production)	Assistant Professor	Production Engg	14 Yrs 3 Months	NA
Dr.Vaishali Ghadyalji	Ph. D. (English)	Assistant Professor	English	17 Yrs 6 Months	Nil
Dr. Kanchan Sinha	Ph. D (Mathematics)	Assistant Professor	Mathematics	30 Yrs 4 Months	Nil
Mr. Sanjiv Badhe	M.Sc. (Physics)	Assistant Professor	Physics	18 Yrs 10 Months	NA
Mrs.Vaishali Dabholkar	M.Sc. (Mathematics)	Assistant Professor	Mathematics	16 Yrs 9 Months	NA

Dr.Umesh Shinde	Ph.D (Physics)	Assistant Professor	Physics	13 Yrs 10 Months	Nil
Mrs.Shahin Pathan	M.Sc. (Bio-Chemistry)	Assistant Professor	Bio-Chemistry	14 Yrs 4 Months	NA
Dr.Vrushali Deole	Ph. D (English)	Assistant Professor	English	15 yrs	Nil
Mr.Vivek Mane	M.E.(Mechanical Engg)	Assistant Professor	Mechanical Engg	14 Yrs 4 Months	NA
Mr.Nitin Kenjale	M. Phil. (Mathematics)	Assistant Professor	Mathematics	09 Yrs 9 Months	NA
Mr.Jitendra Shelar	M.E.(Mechanical Engg)	Assistant Professor	Mechanical Engg	11 Yrs 10 Months	NA
Mrs.Pashmi Kumavat	M.Sc. (Applied)	Assistant Professor	Applied Mathematics	10 Yrs 10 Month	NA
Mr.Kirtikumar Patel	M.E.(Production Engg)	Assistant Professor	Production Engg	14 Yrs 4 Months	NA

* Following faculty members are pursuing PhD

- 1) Mr. Rajesh. Meshram
- 2) Mrs. Shahin Pathan
- 3) Mrs. Pashmi Kumavat

11. List of senior visiting faculty: 01, Mrs.Nalini Kumthekar for Applied Maths I& II

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sem I						
Year	Faculty Name	Course Name	Total Theory Lectures/week	Total Practicals/week	Percentage of lectures delivered	Percentage of Practicals handled
2016-17	Mr.Amol Patil	EVS	105	105	9.52%	NA
2015-16	Ms.Taruna Singh	EVS	105	105	9.52%	NA
2014-15	No visiting faculty	NA	NA	NA	NA	NA
Sem II						
Year	Faculty Name	Course Name	Total Theory Lectures/week	Total Practicals/ week	Percentage of lectures delivered	Percentage of Practicals handled
2016-17	Mrs.Rama Kulkarni	CS	95	185	6.31%	1.08%
2015-16	Mrs.Rama Kulkarni	CS	95	185	6.31%	1.08%
2014-15	No visiting faculty	NA	NA	NA	NA	NA

13. Student -Faculty Ratio (programme wise):

Program	Name	No of students	No of Teachers	Student teacher ratio
UG	FE Engineering	300	17	18:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Academic Support Staff	Number Filled
Lab Assistant	02
Skilled Assistant	03
Attendant	04

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Qualification of teaching faculty	Number
M.Tech.Ph.D	01
MSc Ph.D	03
M.A. Ph.D	02
MSc M.Phil	01
M. E.	04
M.Sc.	04

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

Sr. No.	Project Title	Principal Investigat	Co- Investigator	Funding Agency/ Project No.	Grant Amount
2016-2017					
1	Thickness dependent GMR in Co-Fe/Cu and LCMO /MgO multilayer	Dr.Umesh Shinde	----	INUP IIT Bombay	---

2	Characterization of carbon composite using XPS	Mrs.Shahin Pathan	----	INUP IIT Bombay	---
3	Antinutritive features of little known legume	Dr.Harsha Mishra	----	University of Mumbai	30000/-
4	Inclusion of Queer Gender in Indian Mainstream and	Dr.Vrushali Deole	----	University of Mumbai	20000/-
5	Design and fabrication of walking assistance device	Mr.Jitendra Shelar	----	University of Mumbai	30000/-
6	A Study of library branding through	Mrs.Gauri Gothivere	-----	University of Mumbai	25000/-
2015-16					
7	A study of the implication of Ethnicity in the work of Rohinton Mistry and	Dr.Vaishali Ghadyalji	----	University of Mumbai	30000
8	To study the effect of A site doping on properties of Nanostructured Multiferroic Perovskite Manganities	Dr.Umesh Shinde	-----	University of Mumbai	48000
9	Synthesis of Functionalized carbon from groundnut shell for removal of heavy metals	Mrs.Shahin Pathan	----	University of Mumbai	25000
10	Reassessing major factors detrimental to mangroves population at different locations of Mumbai and Thane district coastal line area in the state of Maharashtra	Dr Harsha Mishra	Mrs. Shaheen Pathan, Mrs.Vrinda Ullas	MoEF	-----
2014-15					
11	Reassessing major factors detrimental to mangroves population at different locations of Mumbai and Thane District coastal line area in MaharashtraState.	Dr. Harsha Mishra	Dr. Vaishali Ghadyalji, Mrs. Shahin Pathan	Mangroves for the Future(MFF) IUCN	-----
2013-14					

12	Physico Chemical characteristics of Hospital waste water	Dr. Harsha Mishra		University of Mumbai	35000
13	Treatment of Hospital waste water with groundnut shell powdered activated carbon	Mr. Vivek Mane	Dr Harsha Mishra	University of Mumbai	35000
14	Photo catalytic Property of Carbon nanomaterial - cuprous oxide composite for degradation of organic pollutants of waste water	Dr Harsha Mishra	Mrs. Shaheen Pathan	UGC Minor Research project	
15	Reassessing major factors detrimental to mangroves population at different locations of Mumbai and Thane District coastal line area in Maharashtra State.	Dr. Harsha Mishra	Dr. Vaishali Ghadyalji, Mrs. Shahin Pathan	Mangroves for the Future(MFF)IUCN	

18. Research Centre /facility recognized by the University:

Nil

19. Publications:

***a) Publication per faculty:**

Sr. No.	Name of Faculty	Number of papers published in journals & conference
1.	Dr. Suresh Ukarande	06
2.	Dr. D. R. Pangavhane	06
3.	Dr. Harsha Mishra	03
4.	Mr.Rajesh Meshram	01
5.	Dr.Vaishali Ghadyalji	06
6.	Dr.K K Sinha	04
7.	Dr.Umesh Shinde	05
8.	Mrs.Shahin Pathan	06
9.	Dr.Vrushali Deole	14
10.	Mr.Vivek Mane	01
11.	Mr.Jitendra Shelar	01
12.	Mrs.Pashmi Kumawat	02

***b) Number of papers published in peer reviewed journals (national / International) by faculty and students: (for all years 2013 -2016)**

1. All Faculty publications are in peer reviewed journals.
2. Student publication –Nil

c. Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

d. Monographs: 02

e. Chapter in Books: Nil

f. Books Edited: Nil

g. Books with ISBN/ISSN numbers with details of publishers:

- Ane Books Pvt Ltd :02
- VDM Verlag D Muller & Co. KG:01
- Everest Publishing House:01
- LAP LAMBERT Publications : 01
- Nandu Publications : 05
- Techmax Publications:01
- Vipul Prakashan:01

h. Citation Index: 1-4

i. SNIP: 0.8 -1.4

j. SJR: 0.5

k. Impact factor: 1.3 -6.3

l. H-Index: 2

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

- a) National committees
- b) International Committees
- c) Editorial Boards:
- d) University Level:

Sr. No.	Faculty Name	Committee/ Professional Society/ Body/ Editorial Board
1	Dr.Suresh Ukarande	a)National Executive Council Member, ISTE, New Delhi
		b)Local Sectional Secretary, Engineering Science Section, 102nd ISC 2015 of Indian Science Congress Association
		c)Former Dean, Faculty of Technology, UoM.
		d)Currently coordinator of Faculty of Technology, UoM.
		e) Chairman , Board of Studies in Civil Engineering of University of Mumbai
		f) Chairman, Syllabus Revision Committee for 2016-17
		g)Vice Chancellors Nominee on Staff Selection Committee at No. of Engineering Colleges wherein selection of Principals, Professors, Associate Professors, Assistant professors and Lecturers is being done through interviews.
		h) Member, Board of Studies in Civil Engineering of Dr.Babasaheb Ambedkar Marathwada University
		i) Member, Research and Recognition Committee in Board of Studies in Civil Engineering of Dr Babasaheb Ambedkar Marathwada University
		j) Editorial Board of International Conference on Emerging trends in Technology and its Applications for 6 th & 7 th March 2013 , 7 th & 8 th March 2014 in Yadavrao Tasgaonkar Institute of Engineering & technology ,Karjat

2	Dr.Harsha Mishra	a) Vice Chancellors Nominee on Staff Selection Committee at number of Engineering Colleges wherein selection of Assistant professors and Lecturers is being done through interviews.
		b) FE/All (Syllabus Revision Committee) for 2016-17
3	Dr.Vaishali Ghadyalji	a) FE/All (Syllabus Revision Committee) for 2016-17
		b) Vice Chancellors Nominee on Staff Selection Committee at number of Engineering Colleges wherein selection of Assistant professors and Lecturers is being done through interviews.
4	Mr.Rajesh Meshram	a)FE/All (Syllabus Revision Committee) for 2016-17
5	Dr.Umesh Shinde	a) Vice Chancellors Nominee on Staff Selection Committee at number of Engineering Colleges wherein selection of Assistant professors and Lecturers is being done through interviews.
		b)FE/All (Syllabus Revision Committee) for 2016-17
6	Dr.Vrushali Deole	a) Vice Chancellors Nominee on Staff Selection Committee at number of Engineering Colleges wherein selection of Assistant professors and Lecturers is being done through interviews.
7	Mr. Kirtikumar Patel	a) Vice Chancellors Nominee on Staff Selection Committee at number of Engineering Colleges wherein selection of Assistant professors and Lecturers is being done through interviews.
		b) FE/All (Syllabus Revision Committee) for 2016-17

22. Student projects: N.A

- a) *Percentage of students who have done in-house projects including inter departmental/ programme:*
- b) *Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:*

23. Awards / Recognitions received by faculty :

Sr.No .	Academic Year	Name of Faculty	Awards/Recognitions/Appreciation
1	2016-17	Dr.Suresh Ukarande	"Best Engineering College Principal Award 2017" by ISTE Maharashtra and Goa Section in 14th ISTE Annual State Convention held at Bharti Vidyapeeth University COE, Pune 17 th Feb 2017.
2	2015-16	Dr.Dilip Pangavhane, Dr.Umesh Shinde, Mr.Vivek Mane Dr.Vrushali Deole	K.J. Somaiya Institute of Engineering and Information Technology (KJSIEIT), Ayurvihar, Sion received ISTE Best Chapter Award-2015 on 11th Jan.2016.
3	2015-16	Mr. Vivek Mane	1.Provost Award for Academic Self Enchantment at the57th Foundation Day Award ,Somaiya Vidyavihar on 9th Sept. 2015
4	2014-15		1.ISTE- G.S.F.C National Award for Best M.Tech. Thesis in Mechanical Engineering during 44 th ISTE Annual National Convention, Thiruvananthapuram-Kerala on 27th November 2014.

Awards / Recognitions received by students:

Sr.No.	Academic Year	Name of student	Awards/Recognitions/Appreciation
2	2016-17	Mr.Gada Deep	Robocon 2017 (National level Robotics competition) Robocon India in association with Doordarshan at MIT, Pune 2 nd -4 th March 2017

24. List of eminent academicians and scientists/ visitors to the department:

The list given below are the eminent persons visited in department level activities in addition to dignitaries visited at institute level activities

Sr.No	Date	Name of academicians and scientists/visitors & Designation	Enrichment programme
1	29/03/2017	Prof. Ashok Tagalpallewar, SIES Graduate School of Technology, Nerul, Navi Mumbai	Expert lecture on the topic of "Engineering Drawing"
2	17/03/2017	Dr.Suhas Jejurikar Faculty National Centre for Nanoscience and Nanotechnology University of Mumbai	Expert lecture on the topic "Small World: Past, Present and Future"
3	03/02/2017	Dr. Aniket Sule Faculty, TIFR and General Secretary, IOAA	Expert lecture on the topic "Telescopes of the Future"
4	09/01/2017	Dr.G T Thampi, Principal Thadonmal Shahani Engg College ,Bandra	As a resource person for the First Year Communication Skills Orientation Programme
5	09/01/2017	Prof .Usha Nair, Associate Professor VJTI ,Matunga	As a resource person for the First Year Communication Skills Orientation Programme
6	26/10/2016	Dr.S.D. Shete, Professor, Applied Chemistry, RAIT, Nerul, Navi Mumbai.	As an External academic auditor
7	03/10/2016	Dr.Bhalchandra Bhange Professor of Industrial and Engineering Chemistry, as well as Dean (Infrastructure and Campus Development), Department of Chemistry, Institute of Chemical Technology (ICT),	Expert Talk on Green Chemistry and Manufacture

8	08/08/2016	Mr.Praful Mayekar Executive Vice-President Futurism Technologies	Chief Guest First Year Orientation Programme
9	6/02/2016.	Prof.ParagAmin Professor SIES	Workshop on Team Work & Self Development
10	11/05/2015	Dr.Uday Khedker Professor IIT Bombay	Key note speaker on STTP of Mathematical Modeling & Applications in Technology (MMAT)
11	11/05/2015	Dr.Amaren Das Scientific Officer BARC	As a speaker on STTP of “Mathematical Modeling & Applications in Technology
12	12/05/2015	Dr.A.K Das Dy. Project Director,	
13	12/05/2015	Dr.M.K Sinha Ex- Principal Indira Gandhi COE & Ex-Executive Engineer BARC	
14	13/05/2015	Dr.Jayalakshmi Nair Principal VESIT	
15	13/05/2015	Mr.S.Saini Scientific Officer BARC	
16	14/05/2015	Dr.S.R Shimjith Scientific Officer BARC	
17	14/05/2015	Mr.Ushnish Sarkar Scientific Officer BARC	
18	15/05/2015	Dr.N.M .Singh Professor VJTI	
19	15/05/2015	Dr.A.N.Cheeran Assistant Professor VJTI	
20	02/02/2015	Dr.Madhuri Sharon Eminent scientist,IITB,	
21	02/02/2015	Dr. Maheshwar Sharon Eminent scientist,IITB,	National Science Day
22	27/7/ 2015	Mr. Bomi Sam Gandhi Vice President (Sales)	Chief Guest First Year Orientation Programme

23	25/8/ 2015	Dr. Sugandha Shetye Associate Professor , K. J. SCSC	Expert Talk on Developing Ecological Consciousness
24	10/09/2014	Dr. Sugandha Shetye Associate Professor , K. J. SCSC K.	Expert Talk on Climate Change
25	19/07/2014	Prof.ParagAmin Professor SIES	Workshop on Soft skills for developing positive work environment

25. Seminars/ Conferences/ Workshops organized & the source of funding

a) National

Sr. No.	Title of the Workshop/Training Programme	Source of funding	Year
1	NAAC-Process, Criteria and Audit	Institute Parent Organization	25 th to 29 th April 2016
2	Blooms Taxonomy and Qualitative Assessment	Institute	10 th Feb 2016 to 13 th Feb 2016
3	NICE-Nurturing Intelligence for Curious Engineers	IET India	2016-17
4	One day program on “NPTEL Awareness”	IIT, Madras	8 th January 2016
5	NICE-Nurturing Intelligence for Curious Engineers	IET India	2015-16
6	National Symposium On Evangelizing Internet of Things (IOT)	IET(2lakhs 75 thousand)	2015-16
7	ISTE approved STTP on “Mathematical Modeling & Applications in Technology”	Parent organization and through external registration	2015-16
8	International competition “Present around the World” (PATW-2014-2015)	IET India	2014-2015
9	NICE-Nurturing Intelligence for Curious Engineers	IET India	2014-2015

b) International:

Sr. No.	Title of the Workshop/Training Programme	Source of funding	Year
1	International competition “Present around the World” (PATW)	IET India	2013-2014,2014-15 , 2016-17

26. Student profile programme/course wise: N.A

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage	
			*M	*F		
FE UG admission all branches	2016-17	275	108	87	21	N.A
	2015-16	1131	110	90	25	39.13
	2014-15	1156	111	94	17	56.3
	2013-14	1061	118	100	18	45.39

*M = Male *F = Female

27. Diversity of Students: N.A

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2016-17	94.42	5.57	N.A
2015-16	92.72	7.27	N.A
2014-15	85.58	5.42	N.A
2013-14	97.45	2.54	N.A

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?:N.A

29. Student progression: N.A

Student progression	Against % enrolled
UG to PG	NA
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities

a) Library- Departmental library is located in the workshop (room no 008)

Sr. No	Details	Quantity
1.	Text books	170
2.	Question papers with solutions	For every subject
3.	Term Test Question papers	All

b) Internet facilities for staff and students:

- Institute has 56Mbps leased high speed internet line provided.
- Department has 24x7 internet and intranet facility to faculty, staff and students.
- All laboratories in the department equipped with computers and internet. Faculties, staff and students can access internet 24x7 in the laboratories.
- All classrooms in the department equipped with internet connection.
- HOD, Dean, T&P In charge and Exam Cell In charge provided with separate rooms equipped with white boards, computer with internet for discussion and counselling.
- Institute provided exclusive Somaiya Vidyavihar (SVV) email Id to all faculties, staff and students.
- Department has online theory lectures and practical attendance filling and monitoring facility for faculties and staff.
- Institute has provided online filling of leave applications, outdoors /vacation form, getting salary statement and TDS calculations through SENSYS Software ESS login to all faculties and staff.

c) Class rooms with ICT facility:

Teaching aids available with the department are

- No. of LCD Projector: 08
- No. of Laptops: 04
- No. of classrooms with internet connection:04
- No. of digital boards in institute: 02

d) Laboratories:

Sr.No.	Laboratory Name	Room No.
1	Workshop	004
2	Chemistry	008
3	Printed Circuit Board	401
		601
4	Basics of Electrical Engineering	403
5	Computer Programming	709
6	Drawing Hall	801
7	Language	802
8	AutoCAD	803
9	Sci Lab	804
10	Physics	805
11	Engineering Mechanics	806
12	Hardware and Networking	807

31. Number of students receiving financial assistance from college, university, government or other agencies :

Sr. No	Scholarship	No. of Students			
		2012-13	2013-14	2014-15	2015-16
1	SC/VJNT/OBC.SBC	5	4	8	19
2	Minority State Govt	6	7	3	5
3	EBC	4	3	6	5
4	Teacher Ward Scholarship	1	1	*	*
5	Minority Central Govt	*	*	1	*
6	Institute Merit Cum Means	*	*	1	*
7	ST	*	*	*	1
8	University EBC	*	*	*	*
9	Somaiya Scholarship for Girls	*	*	*	*
10	TATA Scholarship	*	*	*	*
Total		16	15	19	30

Note : * No suitable students found in some of the scholarship

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts :

Sr.No	Date	Name & Designation of expert	Enrichment programs
1	30/3/2017	Mrs. Shyamal Virnodkar & Members of Software Development Cell of K J S I E I T, Sion.	Motivational lecture on the topic “SPA's role in project development”
2	29/03/2017	Prof. Ashok Tagalpallewar, SIES Graduate School of Technology, Nerul, Navi Mumbai	Expert lecture on the topic of “Engineering Drawing”
3	17/03/2017	Dr.Suhas Jejurikar Faculty National Centre for Nanoscience and Nanotechnology University of Mumbai	Expert lecture on the topic “Small World: Past, Present and Future”
4	15/03/2017	Copper Track Industries, Nashik	Workshop on Solar Energy/Technology

5	03/02/2017	Dr. Aniket Sule Faculty, TIFR and General Secretary, IOAA	Expert lecture on the topic "Telescopes of the Future"
6	03/10/2016	Dr. Bhalchandra Bhanghe Professor of Industrial and Engineering Chemistry, Dean (Infrastructure and Campus Development), Department of Chemistry, Institute of Chemical Technology (ICT), (Formerly UDCT).	Expert Talk on Green Chemistry and Manufacture
7	12/10/2015	Copper Track Industries, Nashik	Workshop on Solar Energy/Technology
8	25/8/2015	Dr. Sugandha Shetye Associate Professor K. J. SCSC	Expert Talk on Developing Ecological Consciousness
9	10/09/2014		Expert Talk on Climate Change
10	15/03/2013	Prof. Parag Amin Professor SIES	Expert Talk on Effective Body Language for Budding Engineers

33. Teaching methods adopted to improve student learning:

Sr.No	Academic Year	Methods Adopted
1	2013-14	<ul style="list-style-type: none"> Listening skills sessions are arranged in Language lab to improve the communication skills. More practice of solving University question papers is taken by faculty in lectures/tutorials Interactive sessions are conducted during lectures/tutorials/practicals More emphasis on elaboration of theory concepts in practical session is put Through remedial lectures and extra lectures, gap between weak and bright students is filled. Conduction of Guest lectures to bridge the gap between academia and industry Use of LCD projectors and Internet facility for effective teaching
2	2014-15	<ul style="list-style-type: none"> Course exit survey Learning through seminars/ workshops under professional chapters such as IEEE, CSI, IET, IEI, IETE and ISTE Conduction of Industrial visits to provide practical exposure on subjects in the curriculum

3	2015-16	<ul style="list-style-type: none"> • Extensive use of ICT based learning • Continuous evaluation • Through group discussions and gap between weak and bright students is filled. • Conduction of seminars by students on subject related topics • Student presentations on diversified topics • Conduction of role play sessions for corporate building.
4	2016-17	<ul style="list-style-type: none"> • Extensive use of Google classroom for assignments, Laboratory Experiments and teaching material, project details etc. • Bridge lectures and doubt solving sessions to help the weaker students • Teaching and learning using on line courses like courses (MOOCs) like course era , NPTEL etc. • Conduction of effective lecture session of 60 minutes with revision of previous lecture(5min),Conduction of session (50min) and summarization of session (5 min). • Conduction of Guest lectures of all the subjects . • Conduction of Industrial visits/study tour to provide practical exposure on subjects in the curriculum. • Module exit survey.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Faculty and students of department actively participate in all the ISR and extension activities as given in criteria 3 and 7

35. SWOC analysis of the department and Future plans

With high rigor and vigour, SWOC (Strengths, Weaknesses, Opportunities and challenges) analysis of the Department of Basic Sciences & Humanities is done in the following manner. This realization of these four components will surely help in the strategic planning process of the Department.

Strengths

- Highly experienced Faculty and Lab Assistants.
- Maximum no. of faculty with Ph.D.
- Outcome based and student centric studies through ICT
- Well-equipped laboratories with high speed internet facility.
- Hardware Networking and Sci lab exclusively for FE students.
- Effective teaching of language skills through language lab
- Attendance Monitoring Software developed by the departmental faculty Mr.Sanjiv Badhe
- Maximum no. of Minor Research Projects funded by the University of Mumbai

Weaknesses

- Moderate grade students

Opportunities

- Interdisciplinary growth across departments.
- Increased research funding by establishing stronger relationships with R&D and academic collaborations.
- Increasing national and regional recognition
- Enrolment of maximum students in online courses like NPTEL.

Challenges

- Improvement of result.
- Enhancement of communication skills of students.
- Involvement of students in research projects.
- Up gradation of staff with latest technology.

Future plans

- Support of Research and Development activities in domain of science, humanities and technology with special emphasis on trends in corporate spheres.
- To encourage faculty and students to undertake research projects and implement them especially for societal relevance.
- Motivate faculty to present/publish Research paper in reputed national & international journals and attend training programs /seminar/conferences for knowledge enrichment and career advancement.
- Engage the services of faculty especially the communication skills faculty to groom the soft skills of the students.



Somaiya Vidyavihar

K J Somaiya Institute of Engineering and Information Technology

(Affiliated to University of Mumbai, Approved by D.T.E. & A.I.C.T.E. (F.No. 740-89-038(NDEG)/ET/2001)

Ref: KJSIEIT/NAAC/872/16-17

March 20, 2017

Declaration by the Head of the Institution

I certify that the data included in this Self- Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Dr. S. K. Ukarande
Principal





Somaiya Vidyavihar

K J Somaiya Institute of Engineering and Information Technology
(Affiliated to University of Mumbai, Approved by D.T.E. & A.I.C.T.E. (F.No. 740-89-038(NDEG)/ET/2001))

KJSIET/NAAC/87311617

Certificate of Compliance

√
(Affiliated/Constituent/Autonomous Colleges and Recognized Institutions)

This is to certify that **K.J. Somaiya Institute of Engineering and Information Technology** fulfills all norms

1. Stipulated by the affiliating University and/or
2. Regulatory Council/Body [such as UGC, NCTE, AICTE, MCI, DCI, BCI, etc.] and
3. The affiliation and recognition [if applicable] is valid as on date.

In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 20/03/2017
Place: Mumbai



Dr. S.K. Ukarande
Principal

PRINCIPAL
K J SOMAIYA INSTITUTE OF ENGINEERING
AND INFORMATION TECHNOLOGY,
SION (E), MUMBAI 400 022.

Somaiya

TRUST

Somaiya Ayurvihar Complex, Eastern Express Highway, Sion (East), Mumbai- 400 022, India.

Telephone: (91-22) 24080331 Fax: (91-22) 24028804 email: principal.tech@somaiya.edu Web: www.somaiya.edu/vidyavihar/kjsiet

