

*Internal Quality Assurance Cell (IQAC)
and Submission of Annual Quality
Assurance Report (AQAR)2016-17
of
Ramrao Adik Institute of Technology
(RAIT), Nerul*



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission
P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bangalore - 560 072 India

NAAC

➤ VISION

To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.

➤ MISSION

- To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects.
- To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions.
- To encourage self-evaluation, accountability, autonomy and innovations in higher education.
- To undertake quality-related research studies, consultancy and training programmes.
- To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.

➤ Value Framework

To promote the following core values among the HEIs of the country:

- Contributing to National Development
- Fostering Global Competencies among Students
- Inculcating a Value System among Students
- Promoting the Use of Technology
- Quest for Excellence

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Part – A

AQAR for the year

2016-17

1. Details of the Institution

1.1 Name of the Institution

RAMRAO ADIK INSTITUTE OF TECHNOLOGY

1.2 Address Line 1

Sector-7 NERUL

Address Line 2

Dr. D Y Patil Vidyanagar

City/Town

NAVI MUMBAI

State

MAHARASHTRA

Pin Code

400706

Institution e-mail address

principal@rait.ac.in

Contact Nos.

022-27709505

Name of the Head of the Institution:

Dr. Ramesh Vasappanavara

Tel. No. with STD Code:

022-27709574

Mobile:

+91 9930776803

Name of the IQAC Co-ordinator:

Dr. M. M. Singh Bhatia

Mobile:

+91 9757218391

IQAC e-mail address:

iqac.rait@rait.ac.in

1.3 NAAC Track ID

MHCOGN 24630

OR

1.4 NAAC Executive Committee No. &Date:

EC (SC)/17/A&A/87.1
dated 16-09-16

1.5 Website address:

<http://www.rait.ac.in>

Web-link of the AQAR:

<http://www.rait.ac.in/AQAR2016-17.pdf>

1.6 Accreditation Details

Sr. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	A	3.09	2016	Sept 2016 – Sept 2021
2	2 nd Cycle	-	-	-	-
3	3 rd Cycle	-	-	-	-
4	4 th Cycle	-	-	-	-

1.7 Date of Establishment of IQAC:

05/04/2016

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC:

This is the first AQAR submitted.

- i. AQAR _____ (DD/MM/YYYY)
- ii. AQAR _____ (DD/MM/YYYY)
- iii. AQAR _____ (DD/MM/YYYY)
- iv. AQAR _____ (DD/MM/YYYY)

1.9 Institutional Status

University

State

Central

Deemed

Private

N/A

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

AICTE approved Institute

Type of Institution Co-education Men Women

Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B

Grant-in-aid +Self Financing Totally Self-financing

1.10 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others(Specify)

UNIVERSITY OF MUMBAI

1.11 Name of the Affiliating University (*for the Colleges*)

1.12 Special status conferred by Central/ State Government--

UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University

University with Potential for Excellence UGC-CPE

DST Star Scheme UGC-CE

UGC-Special Assistance Programme DST-FIST

UGC-Innovative PG programmes UGC-COP Programmes

Any other (*Specify*)

NAAC accredited with grade 'A'

2. IQAC Composition and Activities

2.1 No. of Teachers		10	
2.2 No. of Administrative/Technical staff		1	
2.3 No. of students		1	
2.4 No. of Management representatives		1	
2.5 No. of Alumni		1	
2.6 No. of any other stakeholder and community representatives		1	
2.7 No. of Employers/ Industrialists		0	
2.8 No. of other External Experts		2	
2.9 Total No. of members		17	
2.10 No. of IQAC meetings held		10	
2.11 No. of meetings with various stakeholders	No.	10	Faculty 04
	Non-Teaching Staff	01	Students 01
	Alumni	01	Others (Parents, admin staff, management, students) 04
2.12 Has IQAC received any funding from UGC during the year?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
If yes, mention the amount		-	
2.13 Seminars and Conferences (only quality related)			
(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC			
Total Nos.	71	International 0	National 8 State 3 Institution level 60
(ii) Themes			
	<ol style="list-style-type: none"> 1. Workshop On “Security Assets for Hacking Anticipation” 2. Summer Industrial Training in ‘Embedded System’ 3. Training on “Basic Automation PLC and SCADA” by Siemens 4. Workshop on “Control System Design with MATLAB” 5. ISTE approved Faculty development program on “Research Advances on IoT” 		

Complete list given in Annexure v and ix.

2.14 Significant Activities and contributions made by IQAC

- The IQAC continues to infuse quality improvement in all aspects of the functioning of our institution RAIT, Nerul. Representatives from students, faculty, nonteaching and supporting staff including administration and management take part in deliberations organized by IQAC to take notice, analyze and suggest changes that can positively impact the functioning of RAIT. This highly inclusive and distributive functioning style adopted by IQAC-RAIT makes its impact on all fronts where quality improvement scope is perceived and has a quicker response time.
- IQAC conducted 10 meetings in 2016-17. Through these meetings and an active online/manual feedback mechanism by all stakeholders, it dug out and implemented the activities that need to be introduced or strengthened.
- Through disbursement of the funds (Rs. 45 Lakhs for 2016-17) under IQAC to various departments. Teaching-learning activities received a boost in key areas identified for each of the five departments. 71 conferences/workshops/hands-on training programs were held at RAIT during 2016-17 with an expenditure of 30.26 Lakhs. 145 faculty members and students were deputed to attend workshops/conferences/UoM course syllabus setting, refresher/ orientation courses at an expense of 8.27 Lakhs.
- A student organized workshop of 3 days, called “Technovate 2017”, in which 43 project competitions, 156 paper presentations and 6 expert lectures of several cutting edge technologies and related issues was held at an expense of 6 Lakhs during April 6-8, 2017. A noteworthy feature was active participations from neighboring institutes. 25 awards were given in various categories in this event.
- As outlined in perspective plan 2012-17, IQAC conducted academic audit in odd and even semester 2016-17 in a digital format through DCF. This year we extended the scope of CO-PO attainment over internal evaluation by including university results also. This has made our evaluation process more inclusive thereby giving us a window to examine further improvement in T&L areas.
- The online feedback process has been integrated with DCF. The feedback analysis process is detailed in annexure.
- Administrative audit was conducted between 03 to 10th April, 2017 ensuring all online and manual administrative activities in place.
- IQAC also induced the introduction of pre-requisite tests in each course at the beginning of semester to sensitize the faculty on the existing state of strengths/weaknesses of students vis a vis the relevant prerequisites.
- IQAC also provided guidance/mentorship to faculty directly and indirectly through HODs concerned and DQAs of all departments.
- IQAC conducted environmental audit on 27th Sept, 2016 and has suggested green measures. The results have been very encouraging on this front:

Continuous uninterrupted operations of biogas facility resulting in running of gas burners in hospital canteen. A saving on LPG to the tune of 3 to 4 gas cylinders per month is the outcome. The solar panel has generated an aggregate of 85 to 100 KWH per day during sunny days of 2016-17 which resulted in reduction of carbon footprint and a saving on power bill for 24300 units of electricity amounting to saving of 2.18 Lakhs.

- Due to impetus provided by IQAC there has been considerable improvement in green coverage and vegetation. RAIT has received award for best garden by Navi Mumbai Municipal Corporation for the year 2016-17.
- Our air quality reports show a good index vis a vis neighboring areas owing to our green campus with adequate tree plantation.
- The analysis of feedback received and filtering out to issues which can form an action plan was an important activity of IQAC. Thus suggestions and action taken have become integral part of DQAs of each department under supervision of concerned HODs.

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

Sr. No.	Plan of Action	Achievements
1.	Recruitment of qualified staff to fill vacancies in each department.	Following IQAC guidelines in 2016-17, we recruited 24 ME/M.Tech. and 6 Ph.D.s to fill faculty vacancies thereby resulting in enhancement of quality in learning experiences of the students. This activity has also resulted in better faculty cadre ratio.
2.	Promoting Teachers to do refresher/orientation courses/workshops/training programs.	For faculty development as directed and funded by IQAC, faculty members attended 213 refresher/orientation courses/workshops /training programs fully funded by college R&D fund resulting in improved teaching deliveries by faculty concerned.
3.	Identification of weaknesses in students and providing remedial measures.	One of the IQAC planned measures adopted in 2016-17 was conduction of prerequisite tests in all the courses of each department. Also through DCFs weak students were identified and up to 8 to 9 remedial classes conducted per course, resulting in better planning of teaching process and concentration on weak students, thereby

		achieving better outcomes.
4.	Student level organization of symposia/project competition/quiz.	Through widely advertised Technovate 2017, a national level student organized workshop comprising of student conference NSCFET 2017, 'Srijan' project competition and technical quiz, a total of 156 papers published, 43 projects demonstrated and 25 awards given for excellence. The expenditure incurred was approximately Rs. 6 Lakhs. This activity resulted in better leadership quality among students and fostered research thinking amongst them.
5.	Assistance to students by way of (i) Financial aid (ii) Classes for GATE/IES/CAT etc.	In 2016-17 as planned by IQAC, (i) Financial aid of Rs. 28.69 Lakhs was provided to students by institution in the form of scholarships and awards. (ii) GATE forums were organized for aspiring students These steps motivated students to perform better in their academic progression.
6.	Strengthening the Quality of Academics.	In 2016-17, 4 to 5 NPTEL lectures were arranged per course, 71 expert talks/workshops/conferences conducted with funding from IQAC, thus inculcating lifelong learning process and enhancing awareness of current developments.
7.	Monitoring and evaluating the teaching-learning activities	In 2016-17, academic audits of each subject were conducted in every semester with comments and suggestions to improve under IQAC guidance through DQA of each department. The university exam results were also included to evaluate CO-PO attainment, resulting in better feedback and control of academic activities.
8.	Inculcating Research culture and motivating Teachers to complete PhD	As a result of IQAC initiative, 5 faculty members submitted their PhD thesis and 1 completed PhD thereby enhancing research culture in the institution.
9.	Guiding the students to develop Social awareness through 'Social Wing'	Major social wing activities in 2016-17: 1. "Udaan" marathon organized by social wing raised a fund of Rs. 2,19,104/- for the education of the underprivileged children.

	activities.	2. Around 250 women benefitted from Self-defense workshop. 3. Our students taught about 50 children from 'Girija Balgruha' orphanage located in Kharghar, Navi Mumbai. 4. About 100 saplings were planted in tree plantation drive. The above activities helped in achieving inclusive and holistic development among students.
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Academic Calendar of the year attached in Annexure i.

2.16 Whether the AQAR was placed in statutory body Yes No

Management Syndicate Any other body

Provide the details of the action taken

- Fund approval and disbursement of funds to departments are merit case to case basis. For academic year 2016-17 the fund to IQAC was 45 Lakhs.
- Academic audits of all programmes with comments/suggestions for betterment under IQAC supervision. Concerned HODs oversee the follow up of these suggestions.
- Surprise visits by Management and UoM LIC committees as well as AICTE to monitor the progress and quality analysis of programs being conducted at RAIT.
- Preparation of AQAR in the prescribed format to show the activities mentioned above and their positive impact on the institution.
- Analysis of feedback received from students and faculty and suggesting remedial measures for the same after approval from management. The feedback process is now integrated with DCF and forms means to calculate PO attainment.

Part – B

3. Criterion – I: Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	03	01 (approval granted, letter awaited)	04	-
PG	05	-	05	-
UG	05	-	05	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	-	-	06	06
Others	-	-	-	-
Total	13	01	20	06

Interdisciplinary	-	-	-	-
Innovative	-	-	-	-

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options:

CBCS/ Elective option

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	B.E. , M.E.
Trimester	-
Annual	Ph.D.

1.3 Feedback from stakeholders* Alumni Parents Employers
 Students
 (*On all aspects*)

Mode of feedback: Online Manual Co-operating schools (for PEI)

An analysis of the feedback attached in the Annexure ii.

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

Yes. Choice based Credit & Grading System (CBCGS) syllabus for UG and PG introduced in July, 2016

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Research Centre in Electronics and Telecommunication Department. (approval granted, letter awaited)

4. Criterion – II: Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
266	211	39	16	-

2.2 No. of permanent faculty with Ph.D. 24

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
45	Nil	7	Nil	2	6	-	-	54	6

2.4 No. of Guest and Visiting faculty and Temporary faculty - 8 -

2.5 Faculty participation in conferences, symposia

No. of Faculty	International level	National level	State level
Attended	130	157	50
Presented	141	128	-
Resource Persons	08	40	8

Details attached in Annexure iii.

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- We have adopted interactive teaching and learning methodology with classrooms having podium, audio recording facility, projector, screen and internet facility for NPTEL and video sessions. In 2016-17, this was extended to every lecture hall, seminar room.
- Faculty employed innovative teaching methodologies like quiz, role play, group discussion, puzzles, presentations by students, case studies etc. in 2016-17.
- IQAC has induced the introduction of pre-requisite tests in each course at the beginning of semester to sensitize the faculty on the existing state of strengths/weaknesses of students vis a vis the relevant prerequisites. In 2016-17 this was done for every course.
- LMS android app has been introduced in 2016-17 to ease the access of the technology by faculty and students.

2.7 Total No. of actual teaching days during this academic year 196

2.8 Examination/ Evaluation Reforms initiated by the Institution:

In 2016-17, the following measures were adopted:
 Coded answer sheets, double marks verification, Photocopy, Revaluation (Univ. initiated), Online MCQ for prerequisite test, internal question papers, assignments, laboratory experiments are designed to cover all course objectives.

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

Curriculum Development : 34	BOS Member: 01	Syllabus Setting: 34
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Details given in Annexure iv.

2.10 Average percentage of attendance of students 75%

2.11 Course/Programme wise distribution of pass percentage:

2015-16 (May 2016 B.E.) Branchwise and Sem wise

Title of the Programme	Total no. of students appeared	Division / CGPA				
		Distinct ion (%)	I %	II %	III %	Pass %
IT	125	47.2	42.4	4	-	93.6
CE	136	63.23	29.41	3.67	-	96.32
IN	136	52.92	33.82	2.01	0.96	89.70
EL	135	35.84	54.71	9.43	16.16	80.30
ET	202	43.56	44.55	3.46	-	96.03

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

The quality assurance is ensured by creating QA mechanisms at three levels:

At institution level quality assurance is looked after by college level academic council and Quality Management Services comprising of Principal, Chief Mentor of Quality Assurance CMQA and other co-opted senior faculty members (IQAC for short) by conducting academic audit twice a year.

At the HOD level, Quality Assurance Team at RAIT (DQA-RAIT) sets assurance policy and ensures adherence by departments by conducting internal audit once in a semester.

At the teaching faculty and student level, Departmental Quality Assurance cells (DQAs) each department ensure implementation of processes prescribed and perform department level audit.

The cycle of changes required for enhancing quality in teaching and learning consists of a bottom up process that begins with the students who provide valuable feedback and this travels upwards all the way up to IQAC. The corrective action is conceived at the top and travels downwards and ends with the students feeling those desired changes.

The QA system is structured enough to be interactive and participative and hence effective at all levels and yet flexible to enable it to adapt itself to changes if necessary which inevitably happens from time to time owing to say change in syllabi or as a result of developments in the concerned area of study. It also results in introduction of new areas of study that spring forth owing to rapid technology development by way of new courses.

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	3
UGC – Faculty Improvement Programme	-
HRD programmes	-
Orientation programmes	23
Faculty exchange programme	14
Staff training conducted by the university	18
Staff training conducted by other institutions	27
Summer / Winter schools, Workshops, etc.	97
Others	31

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	84	-	-	-
Technical Staff	41	-	-	-

5. Criterion – III: Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- In 2016-17, IQAC through concerned department coordinators ensured the participation of students and faculty for promotion of research aptitude and inculcation of research methodologies in their minds by organizing workshops / seminars on recent topics and also by encouraging and guiding them in presenting papers at seminars and conferences.
- In 2016-17, IQAC encouraged 100 students and 45 faculty members towards participation and distribution of awards for research publications (by sanctioning amount of Rs. 8.27 Lakhs).
- Workshops were conducted on current research topics for the benefit students and teachers for the knowledge enrichment.
- UG/PG Students were encouraged with funds for student projects as well as presentation of papers in seminars. A student organized workshop Technovate2017 of 3 days was held in which 43 project competitions, 156 paper presentations and 6 expert lectures of several cutting edge technologies and related issues was conducted at a cost of Rs. 6 Lakhs.
- An in-house research biannual journal titled “Communications in Engineering & Technologies” was introduced for encouraging researchers and publications. The first edition is published and second edition is under preparation.

Details of workshops/training programs/seminars for 2016-17 in Annexure v.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	3	-	-
Outlay in Rs. Lakhs	0.80	31.50	-	-

Details in Annexure vi.

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	14	11	2	-
Outlay in Rs. Lakhs	28.97	6.20	0.73	-

Details in Annexure vi.

3.4 Details on research publications

	International	National	Others
Peer Review Journals	32	-	-
Non-Peer Review Journals	8	-	-

e-Journals	3	-	-
Conference proceedings	111	92	-

Details of research publications in journals placed in Annexure vii and conference proceedings placed in Annexure iii.

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organizations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (Rs. in Lakhs)	Received (Rs. in Lakhs)
Major projects	1-2 years	RAES	3.75	1.45
Minor Projects	1-2 years	RAES	6.65	4.95
Interdisciplinary Projects	1-2 years	RAES	25.8	25.8
Industry sponsored Projects	1-2 years	TeamOne ATS EduVance, BARC, SAMEER	0.9	0.52
Projects sponsored by the University/ College	1-2 years	UOM	0.8	0.475
Students research projects <i>(other than compulsory by the University)</i>	1-2 years	RAES	1.93	1.63
Any other(Specify)	-	-	-	-
Total	-	-	39.83	34.825

3.7 No. of books published i) With ISBN No. Chapters in Edited Books
ii) Without ISBN No.

3.8 No. of University Departments receiving funds from N/A

UGC-SAP	-	CAS	-	DST-FIST	-
DPE	-	DBT Scheme/funds		-	

3.9 For colleges

Autonomy	-	CPE	-	DBT Star Scheme	-
INSPIRE	-	CE	-	Any Other (specify)	-

3.10 Revenue generated through consultancy

Rs. 5,12,900/-

Details in Annexure viii.

3.11 No. of conferences /workshop/training programmes organized by the Institution

Level	International	National	State	University	College
Number	NIL	10	1	1	60
Sponsoring agencies	-	RAES	UoM	RAES	RAES

Details of conferences organized in Annexure ix and workshops/training programs etc. in Annexure v.

3.12 No. of faculty served as experts, chairpersons or resource persons

80

Faculty served as experts for workshops	28
Faculty as resource person	34
Faculty served as chairperson (university paper setting)	18

3.13 No. of collaborations: International

8

National

4

Any other

-

3.14 No. of linkages created during this year

6

Details of collaborations and linkages placed in Annexure x.

3.15 Total budget for research for current year in lakhs:

From funding agency

-

From Management of University/College

1.75 Cr

Total

1.75 Cr

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	05
	Granted	-

International	Applied	-
	Granted	-
Commercialised	Applied	-
	Granted	-

Details in Annexure xi.

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year

Total	International	National	State	University	Dist	College
39	2	19	1	8	5	4

Details of research awards by faculty listed in Annexure xii.

3.18 No. of faculty from the Institution who are Ph.D.Guides and students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones) JRF SRF Project Fellows Any other

3.21 No. of students Participated in NSS events:

University level <input style="width: 40px; text-align: center;" type="text" value="525"/>	State level <input style="width: 40px; text-align: center;" type="text" value="6550"/>
National level <input style="width: 40px; text-align: center;" type="text" value="-"/>	International level <input style="width: 40px; text-align: center;" type="text" value="-"/>

3.22 No. of students participated in NCC events:

University level <input style="width: 40px; text-align: center;" type="text" value="10"/>	State level <input style="width: 40px; text-align: center;" type="text" value="12"/>
National level <input style="width: 40px; text-align: center;" type="text" value="-"/>	International level <input style="width: 40px; text-align: center;" type="text" value="-"/>

3.23 No. of Awards won in NSS/social work:

University level <input style="width: 40px; text-align: center;" type="text" value="5"/>	State level <input style="width: 40px; text-align: center;" type="text" value="-"/>
National level <input style="width: 40px; text-align: center;" type="text" value="-"/>	International level <input style="width: 40px; text-align: center;" type="text" value="-"/>

3.24 No. of Awards won in NCC:

University level <input style="width: 40px; text-align: center;" type="text" value="1"/>	State level <input style="width: 40px; text-align: center;" type="text" value="2"/>
National level <input style="width: 40px; text-align: center;" type="text" value="-"/>	International level <input style="width: 40px; text-align: center;" type="text" value="-"/>

Details of NCC/NSS activities given in Annexure xiii.

3.25 No. of Extension activities organized

University forum	4	College forum	8
NCC	10	NSS	12
		Any other	1

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

➤ **Social wing and NSS activities 2016-17**

- Self-defense workshop and seminar: A workshop was organized to teach self-defense techniques to females on account of International Women's Week.
 - Christmas and Diwali Celebrations 2016: Goal was to celebrate the festivals with the underprivileged children and to make sure they have a great time enjoying it.
 - Candle of Knowledge: Aim was to teach children who are not as fortunate so as to uplift them
 - Joyfest 2016: Various fun events were organized which acted as fundraisers for the underprivileged children.
 - Tree Plantation Drive: The goal of this event was to motivate the students to plant saplings and do their bit towards nature.
 - Udaan – Let Dreams Fly: A marathon was organized to raise money for the education of the underprivileged. This event was a huge success and raised a fund of Rs. 2,19,104/-.
 - Wall Painting: The goal of this event was to beautify the walls near the Nerul station entrance with messages of cleanliness.
 - Donation drive of unused clothes, books etc. Was held.
 - Food Donate: The aim was to donate food among poor and needy.
- Value education has been provided to RAIT students through enrichment courses on wellness, societal awareness. A regular yoga instructor has been appointed to conduct yoga classes for students, faculty and staff.
- Our Kalaraag students took part in street plays to spread social awareness. Alternate energy projects information like Bio Gas from kitchen waste, solar panels was widely shared to enhance understanding ill effects of Green House emissions.

6. Criterion – IV: Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area (sq.m)	40000	-	RAES	40000
Class rooms	46	5	RAES	51
Laboratories	64	4	RAES	68
Seminar Halls	5	-	RAES	5
No. of important equipment purchased (\geq 1-0 lakh) during the current year.	1346	12	RAES	1385
Value of the equipment purchased during the year (Rs. in Lakhs)	510.296	80.37	RAES	590.666
Others	-	-	-	-

Photos of newly created infrastructure facilities depicted in Annexure xiv.

4.2 Computerization of administration and library

In 2016-17, the following measures were adopted:

- E-Kiosk on every floor with software to automate the RAIT office activities.
- Digital library and E-books, anti- plagiarism software Turnitin
- Library Management system software is developed for departmental library.
- SLIM21 software has been introduced in Central Library
- Accounting and finance software using Tally and college wide ERP
- Massive Open Online Courses (MOOCs) and National Digital Library were incorporated.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value (Rs.)	No.	Value (Rs.)	No.	Value (Rs.)
Text Books: Central Library	30559	12580094	3734	2260224	34294	14840318
Reference Books: Central	7735	419336	122	689014	7857	1108350

Library						
e-Books	9000	2501993	45382	590336	54382	3092329
Journals	76	180255	89	176880	165	200980
e-Journals	592	1959267	1029	251360 2	1621	4472869
Digital Database	NPTEL videos	-	-	-	NPTEL videos	-
CD & Video	1951		245		2196	
Others (newspapers)	11	18650	11	22896	22	41546
Desktops	28	926368	0	0	28	926368
Laptops	13	104145	0	0	13	104145
Printers	2	25000	1(Thermal Printer)	13855	2	38855
Kiosk	1	61105	0	0	1	61105
Reprography facility	1	165900	0	0	1	165900
Barcode Scanner	2	22050	0	0	2	22050
Internet	135Mbps+ Wifi	-	-	-	-	135Mbps+ Wifi

4.4 Technology up gradation

	Total Computers (Laptops + desktops)	Computer Labs	Internet	Browsing Centres	Computer Centres	(No. Of computers)		
						Office	Departments (desktops + laptops)	Others (Alumni, exam, lib, e-kiosks)
Existing	1076	33	135 Mbps wifi	6	6	18	837 + 174	47
Added	285	1	-	-	-	2	186 + 84	13

Total	1361	34	135 Mbps wifi	6	6	20	1281	60
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Details of no.of computers given in Annexure xv.

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

In 2016-17, following initiatives undertaken for technology upgradation:

- Laptops for all faculty members, wifi routers of 135 Mbps in all laboratories and on each floor.
- FDP on Internet of Things, Microsoft network security certification for students etc.
- Microsoft Suit training program for non-teaching and admin staff
- Network security training by Microsoft
- Oracle training upgradation
- Yokogawa system's training kit for students and faculty

4.6 Amount spent on maintenance in lakhs:

i) ICT	41.83
ii) Campus Infrastructure and facilities	31.25
iii) Equipments	55.858
iv) Others	17.05
Total:	145.995

7. Criterion – V: Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

In 2016-17, IQAC enhanced awareness about Student Support Services among all stakeholders through:

- Digital notice boards displaying
 - 1) Discipline Anti ragging Committee members with contact details
 - 2) Women Grievance Redressal Cell Committee members with contact details
 - 3) Freeships/Scholarships: Alumni scholarship and Siksha Sahakar Scheme notices/reminders
 - 4) Medical Assistance to Students: health centre, health insurance
 - 5) Project Competitions and various extracurricular activities: Technovate 2017, Horizon 2017, Stamina 2017 etc.
 - 6) Chairman's address for industry level projects, internships in March, 2017.
 - 7) Technical and non technical committees like ISA, SUC, RAIT Sports, Social Wing, CSI, IEEE, ITSA, ISTE, Photo circle, Quiz Master, Radio Club, Yoga club
 - 8) Support for students with physical disabilities: Sitting arrangement for examinees, facilities like ramp, lifts, wheelchair etc.
- e-Kiosks displaying facilities for
 - 1) Bonafide certificate
 - 2) Railway concession forms
 - 3) Online Fee payment
 - 4) University results
- Manual display boards (department wise) displaying
 - 1) Time tables
 - 2) Coaching for GATE: GATE forums
 - 3) Industrial visits to various well known industries, research centres etc.: Doordarshan visit in April, 2017.
 - 4) Support for slow learners: Remedial lectures, additional practical hours, frequent tests.
- Class counsellors created Whatsapp groups sharing all related information with students like notices, assignments, competitions, examinations, defaulter's lists, weak students, remedial lectures, projects etc.

5.2 Efforts made by the institution for tracking the progression

- For tracking students' progression within the UG program, following initiatives were undertaken in 2016-17:
 - **Digital Course File (DCF):** All academic records were digitally maintained in this file which kept record of all the students as attendance, test marks, assignment marks, journal grades and this all data was mapped with subjects CO-PO'S which automatically generated students IA and term work marks and also indicated final attainment of CO-POs. Feedback process has now been integrated with DCF and has formed means to calculate PO attainment.
DCF details given in Annexure xvi.
 - IQAC also induced the introduction of **pre-requisite tests** in each course at the beginning of semester to sensitize the faculty on the existing state of strengths/ weaknesses of students.
 - **Special support for students who are at risk of failure:** The departments appointed class counselor for every batch who identified weak students based on regular tests. Wherever necessary, parents were invited to take part in the counseling. Remedial classes, extra-hour classes, frequent tests were arranged on regular basis for such week student.
- For tracking students' progression beyond UG program, following initiatives were undertaken in 2016-17:
 - **Support for progression to higher education and employment:** At RAIT we have active Career Counselling and Placement Cell which organized Placement drives, Lectures on Career opportunities, Special aptitude, soft skill and technical skill workshops. RAIT also organized the lectures of eminent scientists/ personalities/ counsellors on careers after graduation/post-graduation in various fields. Special training sessions were also organized for GATE preparation. *Details of training programs organized by placement cell provided in annexure xvii.*
- Alumni database creation and contact via email has helped in tracking student progression.

5.3 (a) Total Number of students:

UG	PG	Ph. D.	Others
4108	69	21	-

(b) No. of students outside the state

66

(c) No. of international students

Nil

Men

No	%
2632	62.79

Women

No	%
1560	37.21

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
2125	422	42	728	1	3318	2272	484	49	761	1	3567

Demand ratio (0.9)

Dropout (Result awaited)

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- 2016-17 saw this institution having key focus in motivating students for higher studies or research career. Placement cell regularly organized career counseling sessions. Information about career scope in various industries like IT, Embedded, VLSI was given.
- Orientation on various options for higher education and studying abroad was provided. Many students from this institution had gone for higher studies abroad or working as research scientists in premier research institutes like BARC, ISRO etc.
- GATE forums were arranged for students opting for higher studies. Mock tests were also arranged for competitive examinations like CAT, GRE etc. This has resulted into many success stories.
- Soft skill development classes were arranged for the students to enhance their communication skill, logical, numerical ability and problem solving skills. Support of Language Lab was taken to improve spoken English skills.
- ***Details of training programs organized by placement cell provided in annexure xvii.***

No. of students beneficiaries

510

5.5 No. of students qualified in these examinations

NET	-	SET/SLET	-	GATE	165	CAT	11
IAS/IPS etc	2	State PSC	-	UPSC	1	Others	52

5.6 Details of student counseling and career guidance

➤ **Academic Counselling:**

- In 2016-17, the institute provided regular counselling to the students to address issues relating to their academic shortfall and obstacles. Institute had constituted a dedicated team of Faculty to counsel the students academically. One class counselor was assigned to every class.
- Class counsellors looked after their academic requirements, Attendance and made arrangements for remedial and tutorial classes.
- Class counsellors also arranged regular meeting with students to get various suggestions from students. Students could freely express their view, Suggest improvement, demand for any additional facility required.
- After discussing with HODs, class counsellors tried to implement suggestions.
- Parents were provided opportunity to meet the department teachers, HODs, and Principal to ascertain the progress of their wards. They were regularly informed about the progress twice a semester.

➤ **Personal Counselling:**

- In 2016-17, our dedicated team of class counsellors took personal care for low performing or irregular students. Interaction with such students was done at one-to-one level. The students were encouraged to share their personal problem and a friendly environment was provided to make them comfortable to share their personal problems. The mentors maintained secrecy of any personal information and took necessary corrective steps in consultation with senior faculty members, and if required, parents were informed.
- Well being courses conducted in 2016-17: Yoga classes conducted on daily basis, also self defense workshop was arranged on 10th march, 2017 to teach self-defense techniques to females on account of International Women's Week.

➤ **Career Counselling:**

- In 2016-17, Training and Placement Cell at RAIT was primarily involved in Career Guidance. All the students were provided with intense and multidimensional career guidance throughout the course duration. Online assessment tests were conducted for the students so that they can analyse their strengths and weaknesses.
- **In 2016-17, the placement cell was involved in:**
 - Organizing in-plant training programs for hands-on experience
 - Organizing programs to enhance soft-skills
 - Career counselling for pursuing higher studies in India and abroad
 - Conducting entrepreneurship development programs to motivate aspiring students

Details of training programs organized by Placement cell provided in annexure xvii and counseling photos provided in Annexure xviii.

No. of students benefitted

4108

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
37	630	630	In process

5.8 Details of gender sensitization programmes

In 2016-17, we adopted following initiatives:

- **Anti-ragging squad:** As per UGC norms and regulation 2009, the Institute followed a strict anti-ragging policy and has a fully functional committee in place. The committee comprises of the Principal, the Registrar, the various Heads of Departments, the Parents Representative, a Representative from the Police force, a Sr. Student Representative and a Fresher Representative. This committee played a vigilant and a proactive role to prevent any ragging incident in the institution.
- **Women Grievance Redressal Cell:** Women’s Grievance Redressal Committee comprising of senior faculty members who addressed problems faced by girl students and counseled them in the institution. Objective of cell was to combat violence against women employees and students, sexual harassment and gender discrimination. Cell took necessary steps to ensure the incidents pertaining to sexual harassment if require the intervention of the law or not.
- **Women Development Cell:** Self defense workshop and seminar arranged for all women of RAIT on 10th March, 2017.
- Institute level “**Vishakha**” committee has been formed and a seminar was delivered by Advocate Mrs. Rajni Kunte on the topic ‘Awareness about Sexual Harassment’ on 28th Feb, 2017.
- *Photos of self defense workshop provided in Annexure xix.*

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports: State/ University level National level International level

Cultural: State/ University level National level International level

Details of sports and cultural activities of students listed in Annexure xx.

5.10 Scholarships and Financial Support

	Number of students	Amount (Rs.)
Financial support from institution	70	28,69,600/-
Financial support from government	1906	13,40,44,009/-
Financial support from other sources (TATA)	125	5767053/-
Number of students who received International/ National recognitions	-	-

5.11 Student organized / initiatives

Fairs: State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

Details of social activities by students depicted in Annexure xiii.

5.13 Major grievances of students (if any) redressed: Nil

8. Criterion – VI: Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

➤ **Vision**

To foster and permeate higher and quality education with value added engineering, technology programs, providing all facilities in terms of technology and platforms for all round development with societal awareness and nurture the youth with international competencies and exemplary level of employability even under highly competitive environment so that they are innovative adaptable and capable of handling problems faced by our country and world at large.

➤ **Mission**

The institution is committed to mobilize the resources and equip the institution with men and materials of excellence. To ensure that the institute becomes pivotal center of service to industry and academia and society, with the latest technology and student forums of technology enhancing technical societies, cultural platforms, sports excellence centers and Entrepreneurial Development Center. To develop the institute to become an autonomous institution and deemed university at the earliest with facilities for advanced research and development programs on par with international standard. To invite international and reputed national institutions and universities to collaborate with our institute on the issues of common interest of teaching and learning sophistication.

6.2 Does the Institution has a Management Information System

Yes. We have online information system starting from student feedback, Faculty feedback , HOD's comments which is then summarized in end semester reports (again on-line). These reports reach the coordinator IQAC where they are analyzed for strengths and weaknesses and appropriate remarks/suggestions are given and with these it is passed on to Principal, RAIT. Principal then adds his observations/remarks/suggestions and other inputs as he deems fit and passes it back to IQAC for transfer to HODs who then act on the suggestions and provide the Action Taken Report. This entire report is shared by Principal with the Governing Council/Management.

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

- **Curriculum development is under purview of UoM.** In 2016-17, the choice based grading system has been introduced for UG and PG degrees by UoM. A concerted effort has been made to enhance interaction between BOS and the institute resulting in increased participation in syllabus setting and curriculum development and orientation program. *Details of Contribution of RAIT faculty in curriculum development is listed in Annexure iv.*
- In 2016-17, we adopted the strategy of adding or modifying some COs for better COs and POs mapping and attainment. Objectives and Program outcome mapping by indirect measurement was also introduced.
- RAIT faculty, in consultation with experts from IITs and industry as set up by Dean FOT, Chairman, BOS, has been actively contributing in the introduction of new courses, revision of syllabi, and design of scheme of evaluation for UoM. The faculty played an important role in conducting orientation programmes along with the Chairman, BOS. RAIT faculty assists Chairman, BOS in preparing the Question Paper bank.
- Enhanced support provided by industry for departmental advisory committees, project competitions, faculty exchange programs by TCS & Jio were arranged.

6.3.2 Teaching and Learning

In 2016-17, following initiatives were undertaken to enhance T&L:

- Training programs, workshops and expert talks have been conducted for upgrading technical skills. Implementation of outcome based teaching and learning methodology has been incorporated.
- Continuous assessment of student performance has been achieved through tests prerequisite test, assignments, seminars and projects.
- Learning with Multi-media has been made possible through the following:
 - Availability of course material on LMS.
 - Digital library facility.
 - Availability of video, NPTEL lectures.
 - LCD projectors for presentation.
 - Cybernetics with audio recording facility
 - 100% faculty issued with laptops for carrying out research & teaching methods
 - Auto grader (Embedded system) gradeMe
 - Originality check of research work using Turnitin
 - Procurement New library books
 - High end (GPU) laptops, remote access to GPU workstation at GCOE, IITB

6.3.3 Examination and Evaluation

Evaluation Scheme

In 2016-17 we followed the syllabus published by UoM. It allocated 3 to 4 lectures per week of 60 minutes each and provided evaluation scheme for all subjects. A sample data sheet issued by UoM is as follows:

As per guidelines issued by University of Mumbai for Evaluation System of each individual subject varied somewhat in the pattern but the categorization was same the guidelines are given below:

- **Prerequisite Test:** Prerequisite test was conducted for every course at the beginning of semester in the form of MCQs indicating the existing state of strengths/ weaknesses of students.
- **Internal Assessment (IA):** Two tests were conducted which should cover at least 80% of syllabus. The average marks of both the tests will be considered for final Internal Assessment.
- **End Semester Examination:** Question paper comprises of 6 questions, each carrying 20 marks. The students need to solve total 4 questions. Question No.1 will be compulsory and based on entire syllabus. Remaining question (Q.2 to Q.6) will be selected from all the modules.
- **Term Work/ Tutorial:** At least 03 assignments covering entire syllabus were given during the class wise tutorial. The assignments were students centric and an attempt should be made to make assignments more meaningful, interesting and innovative. Term work assessment was based on the overall performance of the student with every assignment graded from time to time. The grades were converted to marks as per credit and grading system manual and added and averaged.
- **Practicals:** At least 10 experiments covering entire syllabus were set to have well predefined inference and conclusion. Computation/simulation based experiments were also encouraged. The experiments were students centric and attempt was made to make experiments more meaningful, interesting and innovative. These guidelines were followed rigorously.

6.3.4 Research and Development

In 2016-17, following strategies adopted to enhance R&D culture in the institute:

- **Training programs** were arranged for the purpose of motivation for R&D activities.
- **In-house projects** were carried out for administrative activities for enhancing consultancy projects.
- An in-house biannual research journal titled "Communications in Engineering & Technologies" was introduced for encouraging researchers and publications. The first edition has been published and second edition is under preparation.
- The R&D committee was involved in administrating research projects sponsored by various government and non-government funding agencies such as UGC, BARC, AICTE, UoM, DST, etc., and promotion of **collaborative research** partnerships for undertaking creative and advanced research.

6.3.5 Library, ICT and physical infrastructure / instrumentation

In 2016-17,

- All 48 classrooms (18 additional) have been upgraded with good acoustics and ICT facilities at a cost of 2.20 Lakhs per classroom.
- LED lamps have been fitted at a cost of 2.12 Lakhs and High mast, street lights powered from solar panel have also been installed at a cost of 2.08 Lakhs.
- Library automation project has been upgraded along with the purchase of anti-plagiarism software.
- Additionally 7 classrooms have been air conditioned.
- Departmental Library area has been enlarged on 4th, 5th and 6th floor.
- Central library area was enhanced: existing area: 450 sq.m., newly added: 195 sq.m.
- Seating capacity was enhanced: existing: 250, newly added: 200
- Canteen named RAIT Legend Express catering to multi-cuisines has been set up and is fully functional.

6.3.6 Human Resource Management

The institute followed the following strategy for HR management in 2016-17:

- Employees were given utmost importance and their needs are well recognized.
- Service rules are transparent and the staff got benefits such as provident fund, gratuity, etc.
- The faculty members and staff are entitled to benefits like casual leave, maternity leave, medical leave, earned leave and vacation according to rules laid down in the statutes of UoM.
- The institute arranged training programmes and also deputed the staff to other organizations for attending such programmes for acquiring technical skills, teaching skills, and soft skills.
- The institute had also arranged financial planning lectures for staff, to assist them for effective planning of their finances.
- The institute had a well-defined and effective selection procedure, systematic performance appraisal system and promotion policies. Details of internal promotions in the academic year 2016-17:

Sr. No.	Post	No. of Promotions
1	Associate Professor	31
2	Professor	05

- **LIC group insurance policy:** The group insurance policy scheme for the Faculty and staff member has been initiated in the institute. The policy is term policy meaning the insurer will be covered for the sum assured agreed only on natural or accidental death. Total 216 faculties and staff have adopted for the scheme and total premium per year is Rs.326538/-

- Regular yoga teacher appointed for conducting yoga sessions for teaching and non teaching.
- Skill Enhancement programs for administrative staff arranged.
- List of skill upgradation courses conducted in 2016-17:

Sr. No.	Course	Duration	No. of students benefited
1.	TIME- Aptitude, Quantitative, Data Interpretation, Verbal	32 days	140
2.	Roy Eddington & Charles – Soft Skills, Personality Development, Communication, Interpretation Skills, Reading & Writing Skills, Mock Interviews.	32 days	140
3.	Summer Industrial Training in Embedded System	21 days	120
4.	Internship on Oracle Workforce Development	21 day	50

6.3.7 Faculty and Staff recruitment:

In 2016-17, RAIT continued to follow the recruitment policy laid down by IQAC. 24 ME/MTech and 6 Phd candidates were recruited in this academic year. The details of the strategy adopted in recruitment of faculty and staff for the academic year 2016-17 are:

RAIT believes in selecting inspiring teachers who motivate students by innovative thinking and practical examples in their approaches. RAIT follows UoM and AICTE rules for selecting its faculty. The underlying principle is to maintain or better the student teacher ratio set as prescribed by the AICTE and NBA authorities.

- The requirement of faculty is prepared by HODs based on analysis of the need carried out by survey and a consolidated list of requirement is forwarded to Principal. Accordingly strategies are adopted by RAIT for the recruitment of new faculty.
- Prior to the beginning of the academic year the roster is prepared and sent to UoM for approval and an advertisement is released.
- If the requirement arises in between and there is not sufficient time available for following university process, ad-hoc appointments are carried out by RAIT through local boards to meet the urgent academic loads.
- Faculty members recruited through local boards are ratified by university authorities as and when the regular board is formulated by UoM.
- The local selection board consists of Professors and HODs and one external professor from outside the institute. For university ratification, board comprises of a member nominated by UoM.

6.3.8 Industry Interaction / Collaboration

- In 2016-17, the institute had intense institute-industry interactions. **Industrial training** for the students as well as faculty is promoted. In every academic year, **industrial visits** are arranged for faculty and students. Both UG and PG students are motivated to undertake their final year project in the relevant industries of their domain, thus exposing and preparing them to meet the real time requirement of the industry.
- **MOUs:** RAIT has entered in to R&D collaborations with Indian Institute of Technology Mumbai and leading research based industry called Gauranga SoftTech, Navi Mumbai for mutually beneficial research and development efforts.
- **MOUs in the year 2016-17 Details:**
 1. Roy Eddington-Charles & Associates
 2. Yokogawa
 3. Barclays
 4. Internshaala
- **Industry collaborations in 2016-17:** TCS, Barclays, Microsoft, Oracle Workforce Development Program, Internshala, NMMC for solid waste management, COE in IoT establishment with Cypress Semiconductor USA.

6.3.9 Admission of Students

In 2016-17, we continued to follow the admission process governed by MS-DTE. The details are as follows:

- **Director of Technical Education, Maharashtra State (MS-DTE)** governs the admission to all the branches. The institute has its own admission cell to provide information regarding the admission procedure to parents and candidates. The Institute follows the reservation quota rules as per the norms for the students in the reserved category and there is 100% transparency in the procedure. For admission in 20% management seats, there is a central admission cell and admission is based on eligibility Criterion set by DTE. All applications received at the institute level are processed and filled on merit basis. DTE also publishes database of available seats in the institute.
- The institute prospectus provides all the academic, administrative and fee structure information related to admission process. The notification contains detailed information about number of seats, different courses, eligibility for admission, process of admission and academic information on the institutional website. The referral of alumnus also helps in admission procedure. A digital display at the entrance of the college, and on all the floors is used for displaying the total number of seats in each department. All notice boards are also used to display the notification and details of admission procedures. The institute also provides extensive counseling by Principal, Registrar and HODs for prospective students.

6.4 Welfare schemes for

Teaching	√
Non teaching	√
Students	√

Welfare schemes for students:

- Following schemes were operative in 2016-17:
 - Economical weaker students are provided concession in academic fees and opportunity to work in campus under Shiksha Sahakar Scheme.
 - Institute ensures the financial assistance to the meritorious students in the form of Scholarships and other tuition fees waivers. The Institute educational fund is used exclusively for supporting the students. Ramrao Adik Institute of Technology has given exemptions in tuition fee, and Scholarship for merit students.
 - The needy students are provided facility to pay tuition fees in installments.
 - There is provision of free Text Book supply facility offered in the library for SC and ST category students. On need, this facility is extended to students of economically weaker sections too.
 - The students are funded for taking part in professional and project work competitions and professional societies.
 - Accidental and life cover is provided to all students free of charge by RAIT.
 - Various types of Counselling and guidance are provided to students.
 - Insurance is provided to every student.
 - Scholarship scheme by TATA group is provided every year.
 - Performance based awards for students from Management and industries every year.

Welfare schemes for Teaching and Non Teaching:

Some of the welfare schemes made available for teaching and non-teaching staff in 2016-17 are listed below:

- **Healthcare facility for teaching and non-teaching staff at concessional rates at D Y Patil Hospital, Nerul:** All the faculty and non-teaching staff are entitled to use medical facility at the concessional rates; the concession of 15% is given to all employee of RAIT. In addition, depending on complexity of case and repayment capacity of staff member, additional concessions are provided by the hospital management. Percentage of faculty utilizing this is 100%.
- **Maternity Leave:** The institute has a liberal leave policy for post maternal leave. Maternity leave is granted to all women faculty which can be up to maximum of three months. All eligible faculty members have been granted these privileges, incidentally 3% of Women faculty have availed this facility for last 4 years, post maternity leave depending on the need and emergency additional leave also granted to women faculty; nearly 2% of faculty has availed this facility.
- **Medical Leave/Casual Leave/Compensatory-Off facility:** 100% of faculty avails this facility.
- **Yearly 70 days vacation for teaching staff and 30 days of EL for non-**

- vacation staff:** 100% of faculty avails above facility.
- **On-duty leave facility whenever faculty and staff travel on duty:** Nearly 80% of faculty enjoys on-duty leave facility.
 - **Provident Fund as per rules:** Available for all faculty.
 - Gratuity on attainment of superannuation for teaching and non-teaching staff is available for all eligible staff.
 - **Incentives for publishing in high grade journals and books:** On an average 5% of the faculty receives grants, incentives under this scheme.
 - **Travelling allowance and registration charges for attending conferences:** Around 90% of faculty avails this facility each year.
 - **Additional increments/allowances after obtaining higher qualifications such as ME/MTech/MPhil/PhD:** On obtaining ME/MTech/MPhil qualifications, faculty is promoted as Assistant Professor in Sixth Pay. Under this scheme 75% of faculty has been given Sixth Pay scale. For faculty obtaining PhD, additional increments/promotion to next grade are awarded. Under this scheme 5% of the faculty has benefitted by this facility.
 - Cooperative Society Membership for faculty and staff.
 - **Newly introduced scheme in 2016-17:** LIC group insurance policy scheme for the Faculty and staff member has been initiated in the institute. The policy is term policy meaning the insurer will be covered for the sum assured agreed only on natural or accidental death. Total 216 faculties and staff have adopted for the scheme and total premium per year is Rs.326538/-

6.5 Total corpus fund generated 15 Cr

6.6 Whether annual financial audit has been done √ Yes No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	IQAC	Yes	IQAC-RAIT
Administrative	Yes	IQAC	Yes	IQAC-RAIT

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Programmes Yes √ No

For PG Programmes Yes √ No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

University Examination Reforms:

- The institute being affiliated to UoM, conducts all examination as per university schedule. To conduct examination, the institute has well equipped infrastructure. The examination conduction is effectively monitored to follow guidelines of the university.
- The question papers for the examinations are delivered on the examination day through digital delivery system in an encrypted format.
- On-screen assessment has been introduced since last three years for assessment of first and final year subjects. For second and third year examinations, the assessment and evaluation are done at the institute level.
- For smooth conduction of university theory examination, an **internal squad** comprising of senior faculty members was appointed. Appropriate measures provided by UoM were taken into action time to time.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

- There is a provision by the affiliating university to grant the autonomy according to the status of the institution. RAIT is planning to apply for the autonomy status as per clause 12(b) of the UGC Act (3).

6.11 Activities and support from the Alumni Association

The institute has a registered **RAA** intended to strengthen the stakeholder relationship, participate in decision making process and to foster the institute level developmental activities. RAA also assists in placement activities as well as quality improvement of both the students and the faculty members by concreting the industry-academia partnership.

RAIT Alumni Association activities and progress for the year 2016-2017:

- Increase in RAA registered Membership to 8,500+ from 1650+ members.
- Developed and Redesigned the existing website <https://raitalumni.dypatil.edu>
- Panel discussion on 'Idea: The startup code', on 18th March 2016.
- The panelists invited for the event were:
 - Mr. Sameer Agarwal - Founder and CEO of Class Hopr
 - Mr. Navin Natraj - National MGR strategic alliances at citrus payment solutions
 - Mr.Saurabh Karandikar – Creative consultant, User experience Analyst
 - Mr. Shakeef Khan - Founder at Yute.in

- The panel discussion gave valuable insight on starting one's own Start Up, the user experience, execution of plans, networking, sponsorship and funding.
- The RAA news letter is published every month on the Alumni Website.
- Organized RAIT Alumni Meet 2017 on 18 Feb 2017 at RAIT. 373 alumni were present for reunion.
- In 2016-17, Eminent Alumni Mr.Rajesh R. Jumani, Mr.Sandeep Suvarna , Mr.Krishnkant Mishra, Mr.Gunadnya Kharche were awarded and recognized for their achievements.
- Re-launched RAMP (RAIT Alumni Mentorship program) with the release of a brochure. This initiative introduced avenues for alumni to help students through internships, workshops, training programs and scholarships.

6.12 Activities and support from the Parent – Teacher Association

In 2016-17, following activities undertaken by the Institute towards Parent-Teacher interaction:

- Class counsellor of each class conducted monthly meetings where various issues related to the students were discussed and action was taken by the class counsellor. All records are kept in class counsellor file which is available with each class counsellor. Class Counsellor sent attendance report to parents.
- **Parents-Teachers Meeting** was arranged for all years for all departments every semester. Vision-mission of the institute and the department were discussed with parents and all the facilities provided to students in the institute are explained to them. All academic records were displayed and inputs were received from them for betterment of the institute.

Sr. No.	Department	Date	No. of parents attended
1	Engineering Sciences	18/03/2017	93
2	Electronics	14/03/2017	156
3	Electronics & Telecom	14/03/2017	80
4	Information Technology	14/03/2017	54
5	Computer	14/03/2017	60
6	Instrumentation	14/03/2017	58

6.13 Development programmes for support staff

In 2016-17, the development programs arranged for support staff are listed below:

- Skill enhancement program arranged for administrative and non-teaching staff: Microsoft Suit (No. of participants=58).
- Yoga classes were arranged for support staff.

6.14 Initiatives taken by the institution to make the campus eco-friendly

In 2016-17, the initiatives taken to make campus eco-friendly are:

- LED lamps have been fitted in the whole campus and High mast, street lights powered from solar panel have also been installed at a cost of 8 Lakhs.
- Bio manure has been produced and utilized in vegetable farming in the campus.
- Biogas generated from in-house biogas plant has been utilized in gas stove in the canteen and it is the same canteen that provides kitchen waste as raw material.
- 56 Kg of biogas is being produced per day producing 15 KW of energy feeding to hospital canteen gas stoves.
- Self monitored 20KW green solar setup has been deployed as a scalable design document for end user and to design high performance and durable solar energy product to use this as a T&L, training and awareness creation platform. The solar plant is producing 17 KWh during day time.
- All classrooms have made sound proof and the whole campus lighted with LED lamps.

9. Criterion – VII: Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Following innovations have been introduced during 2016-17 creating positive impact on the functioning of the institution:

- Evaluating outcomes of the training programs/workshops: The evaluation method consisted of conducting quiz for the participants and then analyzing their performance and finally coming out with the outcome based on objectives.
- Library automation project along with the purchase of anti-plagiarism software.
- Upgradation of classrooms with better acoustics.
- Implementation of a software project providing Vision-Mission mapping and attainment of the institute and filing patent for the same.
- Implementation of indirect attainment measurements in DCF through feedbacks.
- Formation of project groups for taking up innovative projects through internships and seed funding.
- Faculty exchange programs with industries.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year.

- Based on plan of action chalked down at the beginning of the year, IQAC has adopted following measures in the academic year 2016-17 to enhance quality of teaching and learning:
- Following IQAC guidelines in 2016-17, we recruited 24 ME/MTech and 6 PhDs to fill faculty vacancies.
 - For faculty development as directed and funded by IQAC, faculty members attended 213 refresher/orientation courses/workshops/training programs fully funded by college R&D fund.
 - One of the IQAC planned measures adopted in 2016-17 was conduction of prerequisite tests in all the courses of each department. Also through DCFs weak students were identified and up to 8 to 9 remedial classes conducted per course.
 - A widely advertised Technovate 2017, a national level technical event comprising of student conference NSCFET 2017, ‘Srijan’ Project Competition, Technical Quiz and Technical Talks, was organized in April 2017. During this event, a total of 156 papers were published, 43 projects were demonstrated and in all 25 awards were given for excellence. The expenditure incurred was approximately Rs. 6 Lakhs.
 - In 2016-17 as planned by IQAC,
 - (i) Financial aid of Rs. 28.69 Lakhs was provided to students by institution in the form of scholarships and awards.

- (ii) GATE forums were organized for aspiring students
- In 2016-17, 4 to 5 NPTEL lectures were arranged per course, 71 expert talks/workshops/conferences conducted with funding from IQAC.
- In 2016-17, academic audit of each course was conducted in all departments with comments and suggestions to improve under IQAC guidance through DQA of each department. The university exam results were also included to evaluate CO-PO attainment.
- As a result of IQAC initiative, 5 faculty members have submitted their PhD thesis while one faculty has completed PhD.
- Major activities of ‘Social Wing’ undertaken during 2016-17:
 - (i) “Udaan” marathon organized by Social Wing in January 2017 raised a fund of Rs. 2,19,104/- for the education of the underprivileged children.
 - (ii) Around 250 women benefitted from ‘Self-defense workshop’ in March 2017.
 - (iii) Our students taught about 50 children from ‘Girija Balgruha’ orphanage located in Kharghar, Navi Mumbai .
 - (iv) About 100 saplings were planted in tree plantation drive in October 2016.
- For the academic year 2015-16, we have completed the full feedback cycle for all the departments starting from students going up to the Principal and followed by Action Taken Report by respective HOD.

A sample of this digital feedback is placed in Annexure ii.

7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

Digital Initiative Program or DIP-RAIT and Internal Quality Assurance Cell or IQAC-RAIT, are the two initiatives that RAIT has continued to adopt to improve its functioning at all levels in a participative, inclusive and verifiable manner.

Details provided in Annexure xxii.

7.4 Contribution to environmental awareness / protection

In 2016-17, following initiatives were taken to contribute to environmental awareness:

- Utilization of renewable energy within the campus like solar energy for lighting street lights, high masts and biogas energy for cooking.
- Bio manure for growing vegetables and trees.
- Composting.
- Segregation of kitchen waste suitable for loading in biogas plant.
- Biogas generated from in-house biogas plant has been utilized in gas stove in the canteen and it is the same canteen that provides kitchen waste as raw material.
- Road safety awareness campaign organized by NCC.
- Swatch Bharat Abhiyaan by NCC.
- ***Photos of renewable energy sources given in Annexure xxiii.***

7.5 Whether environmental audit was conducted? Yes No

IQAC conducted environmental audit on 27th Sep, 2016 and has suggested green measures. The results have been very encouraging on this front:


- Continuous uninterrupted operations of biogas facility resulting in running of gas burners in hospital canteen. A saving on LPG to the tune of 3 to 4 gas cylinders per month is the outcome.
- The solar panel has generated an aggregate of 85 to 100 KWH per day during sunny days of 2016-17 which resulted in reduction of carbon footprint and a saving on power bill for 24300 units of electricity amounting to saving of 2.18 Lakhs.

7.6 Any other relevant information the institution wishes to add.

- We continue to maintain high standards in our strengths mentioned in SSR. In 2016-17, the following strengths have been added:
 - Enhanced quality of staff
 - Enhanced equipments and infrastructure
 - Android based app for LMS
 - Promoting National Digital Library with students and faculties
 - IEEE digital library
 - Publications of in house biannual research journal
- We have upgraded ourselves in all respects and removed some weaknesses mentioned in SSR:
 - Our weakness was ‘Shortage of avenues to gain first-hand experience with the fast growing technology areas in the branches. The gap between curriculum up-gradation and industry needs is becoming larger day by day’. **This gap has been reduced by arranging expert talks, hands-on training programs.**
 - Another weakness was ‘Adequate R&D exposure to make life-long learners out of students through exposure to open ended problems. Quite often time constraints prevent this important activity from happening’. **This has been overcome by emphasizing on in-house projects in different fields and industry interactions.**

10. Plans of institution for next year

- 1. Plan for teaching and learning activities:**
 - To continue encouraging faculty to make use of webinar facility extensively.
 - To provide more facilities to meet the research requirements of students and faculties.
 - To promote self learning and adaptation to technology among students.
 - To enhance project based learning.
- 2. Plan for R&D as a tool for progress:**
 - To recruit qualified staff with rich research background (PhDs) to bring about a paradigm change in learning environment against any vacancy which may arise in future.
 - To encourage the faculty and students to send research proposals for funding from national agencies such as AICTE/DST/TEQIP/MHRD.
 - To enhance industrial consultancy, research and development in some key areas.
 - To organize international conference in the institute for aiming exposure of students and faculties to international standards.
- 3. Plan for student related activities:**
 - To continue to provide students with avenues for sports activities, cultural and social activities and also avenues for creative writing and oration through a spectrum of activities interlaced within curriculum calendar. The aim is to give them all-round development.
 - To expand social wing activities.
 - To continue efforts towards placement for students in Core companies for electronics, EXTC and instrumentation branches.
 - To further strengthen the digital feedback mechanism with analysis and remedial measures.
- 4. Plan for innovation:**
 - RAIT has plans to upgrade in-house research project on indigenous solar powered generation with smart monitoring system and RAIT will share the experience with others on this matter.
 - To enhance digital administrative activities through e-service book, leave management system and mobile notification system for students' result.
- 5. Plan for good governance:**
 - To share with the Management, the department wise events and analysis digital feedback report which includes comments by HODs, CMQA and Principal through Principal-RAIT.


Name Dr. M.M.S. Bhatia


Name Dr. Ramesh Vasappanavara

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

➤ **Abbreviations:**

CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission

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Academic Calendar

➤ 2016-17 ODD SEMESTER



Dr. D. Y. Patil Group's
RAMRAO ADIK INSTITUTE OF TECHNOLOGY, NERUL

ACADEMIC CALENDAR
July 2016-November 2016

JULY 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
31					1	2
3	4	5 IQAC meeting	6 RAMZAN ID	7	8	9
10	11 SE, TE, BE TERM STARTS	12	13	14	15	16
17	18	19	20 BE PROJECT CONFIRMATION	21	22	23
24	25 BE PROJECT GUIDE ALLOCATION	26	27	28	29	30

	REMEDIAL CLASSES		ACADEMIC AUDIT
	FE TERM START AND END		FEET
	TERM TEST		SE, BE, TE TERM START AND END
	HOLIDAYS		BE PROJECT
	FE, SE, TE, BE JOURNAL SUBMISSION		STUDENT FEEDBACK
	* - Social Wing Activity		



Dr. D. Y. Patil Group's
RAMRAO ADIK INSTITUTE OF TECHNOLOGY, NERUL

ACADEMIC CALENDAR
July 2016-November 2016

AUGUST 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8 FE TERM STARTS	9	10 FIRST DEFAULTER LIST DISPLAY	11	12 FIRST ATTENDANCE REPORT TO PARENTS	13
14	15 INDEPENDENCE DAY	16 SE, TE, BE TERM TEST-I	17 PARAS NEW YEAR	18 SE, TE, BE TERM TEST-I	19 SE, TE, BE TERM TEST-I	20
21	22	23	24	25 JANMASHTAMI	26	27
28	29 ACADEMIC AUDIT-I	30 FE FIRST DEFAULTER LIST DISPLAY	31 FE FIRST ATTENDANCE REPORT TO PARENTS			



Dr. D. Y. Patil Group's
RAMRAO ADIK INSTITUTE OF TECHNOLOGY, NERUL

ACADEMIC CALENDAR
July 2016-November 2016

SEPTEMBER 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5 GANESH CHATURTHI	6	7	8	9	10
11	12 BAKSHID	13	14	15 ANANT CHATURTHI / FE FIRST DEFAULTER LIST DISPLAY	16 FE FIRST ATTENDANCE REPORT TO PARENTS	17
18	19 TERM TEST-I	20 FE TERM TEST-I	21 FE TERM TEST-I	22 SPORTS, CULTURAL & TECH FEST	23 SPORTS, CULTURAL & TECH FEST	24 SPORTS, CULTURAL & TECH FEST
				Joy Fest*	Joy Fest*	Joy Fest*
25	26	27 Green Audit*	28 STUDENTS FEEDBACK	29 STUDENTS FEEDBACK	30 STUDENTS FEEDBACK	



Dr. D. Y. Patil Group's
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ACADEMIC CALENDAR
July 2016-November 2016

OCTOBER 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
30 PUJAN	31 LAXMI BALIPRATIPADA					1
2 GANDHI JAYANTI	3	4	5 BE PROJECT SUBMISSION	6 STUDENTS FEEDBACK (CO- PO)	7 SECOND DEFAULTER LIST DISPLAY	8
9	10 SECOND ATTENDANCE REPORT TO PARENTS	11 DUSSEERA	12 MOHARAM	13 SE, TE, BE TERM TEST-II	14 ACADEMIC AUDIT-II	15 SE, FE, BE TERM TEST-II
	Green Drive*					
16	17 SE, TE, BE TERM TEST-II	18 SE, TE, BE REMEDIAL CLASSES	19 SE, TE, BE REMEDIAL CLASSES	20 SE, TE, BE REMEDIAL CLASSES	21 SE, TE, BE REMEDIAL CLASSES	22 SE, TE, BE TERM ENDS
		JOURNAL SUBMISSION	JOURNAL SUBMISSION	JOURNAL SUBMISSION	JOURNAL SUBMISSION	
		IQAC meeting				
23	24	25	26	27	28	29

* Tentative starting date of SE, TE, BE for Oral and Practical exams - 24th OCT

** Tentative starting date of SE, TE, BE for Final University Examinations - 10 NOV



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ACADEMIC CALENDAR
July 2016-November 2016

NOVEMBER 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
		1 BHAIJU	2	3	4	5
6	7 FE SECOND DEFAULTER LIST DISPLAY	8 FE SECOND ATTENDANCE REPORT TO PARENTS	9 FE TERM TEST-II	10 FE TERM TEST-II	11 FE TERM TEST-II	12
13	14 GURUNAK JAYANTI AND CHILDREN'S DAY	15 FE REMEDIAL CLASSES JOURNAL SUBMISSION	16 FE REMEDIAL CLASSES JOURNAL SUBMISSION	17 FE REMEDIAL CLASSES JOURNAL SUBMISSION	18 FE REMEDIAL CLASSES JOURNAL SUBMISSION	19 FE TERM END
20	21	22	23	24	25	26
27	28	29	30			

- * Tentative starting date of FE for Oral and Practical exams - 21th NOV
- ** Tentative starting date of FE for Final University Examinations: - 5th DEC
- * ATTENDANCE IS GIVEN DUE WEIGHTAGE IN EVALUATION OF STUDENTS PERFORMANCE.
- * 75% ATTENDANCE MANDATORY FOR APPEARING FINAL UNIVERSITY EXAMS.

➤ 2016-17 EVEN SEMESTER



Dr. D. Y. Patil Group's
RAMRAO ADIK INSTITUTE OF TECHNOLOGY, NERUL

ACADEMIC CALENDAR
January 2017-April 2017

JANUARY 2017						
SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9 DAC meeting IQAC meeting	10 DEPT and DQA meeting	11 Term Start Mandatory Registration	12	13 DQA Audit-I	14
15	16	17	18	19	20	21
22	23	24	25	26 Republic Day	27	28
29* 'UDDAN' Marathon	30	31				

WORKING DAYS : 16 TEACHING DAYS : 14

DEPARTMENT MEETING	DQA AUDIT	DEPT. PARENT TEACHER MEETING	HOLIDAYS
TERM START AND END	CULTURAL & TECH. FEST	REMEDIAL CLASSES	STUDENT FEEDBACK
TERM TEST	SPORTS	FE, SE, TE, BE JOURNAL SUBMISSION	WEEK END



ACADEMIC CALENDAR
January 2017-April 2017

FEBRUARY 2017						
SUN	MON	TUE	WED	THU	FRI	SAT
			1 First Defaulter List Display	2 Defaulter Parent Meeting	3 Horizon	4 Horizon
5 Horizon	6	7	8	9 Stamina	10 Stamina	11 stamina Convocation Ceremoney
12	13	14	15	16	17	18 Alumni Meet
19	20	21	22	23	24 Mahashivratri	25 EPL
26 EPL	27	EPL	28 First Attendance Report to Parents EPL			
WORKING DAYS : 22			TEACHING DAYS : 16			



ACADEMIC CALENDAR
January 2017-April 2017

MARCH 2017						
SUN	MON	TUE	WED	THU	FRI	SAT
			1 EPL	2 EPL	3	4 Dept PTM
			Second Defaulter List Display	Defaulter Parent Meeting		
5	6 Term Test-I	7 Term Test-I	8 Term Test-I	9 DEPT and DQA meeting	10 Term Test-I Marks Display	11
			WDC*	WDC*	WDC*	
12	13 Holi	14 DQA Audit-II	15 Academic Audit-I	16	17	18
19	20	21	22	23	24	25
26	27	28 GudiPadwa	29 Students Feedback	30 Students Feedback	31 Students Feedback	
WORKING DAYS : 22			TEACHING DAYS : 18			

WDC - Woman's Day Celebration
* - Social Wing Activity

ACADEMIC CALENDAR

APRIL 2017						
SUN	MON	TUE	WED	THU	FRI	SAT
30						1
2	3 final Defaulter List Display	4 Ramnavmi	5 Defaulter Parent Meeting	6 Technical Fest	7 Technical Fest	8 Technical Fest
	Admin Audit, IQAC meeting	Admin Audit	Admin Audit	Admin Audit	Admin Audit	
9	10 Admin Audit	11	12	13 Students Feedback (CO-PO)	14 De. Ambedkar Jayanti / Good Friday	15
16	17 Term Test-II	18 Term Test-II	19 Term Test-II	20 DQA Audit-III	21 Academic Audit-II	22 Term End
		DEPT and DQA meeting		Remedial Classes	Remedial Classes	
				Journal Submission	Journal Submission	
23	24	25	26	27	28	29
WORKING DAYS : 15			TEACHING DAYS : 09			

* Tentative starting date of FE, SE, TE ,BE for Oral and Practical exams - 24 April

** Tentative starting date of FE, SE,TE,BE for Final University Examinations – 8th May

Analysis of feedback

From students, the main stakeholders, an online feedback is taken in each course. This reflects their perception of the quality of teaching as received by them in the following format:

Student feedback: CO-PO and Q factor

Performance Parameter	1: Can be better	2: Average	3: Good	4: Very Good	5: Excellent
Punctuality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teaching Ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interaction with students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Additional Comments:

Fig. 1. Faculty e-feedback interface for students

Subject Name: Microprocessor Subject Code: CPC501

CO1	Student will be able to write programs to run on 8086 microprocessor based systems.
Question	Adequate inputs were provided to familiarize the basic concept and underline principles?
	<input type="button" value="Please Select"/>
CO2	Student will be able to understand and use mixed language programming applications
Question	Inputs to identify the basic element of the subject have been gained by you?
	<input type="button" value="Please Select"/>
CO3	Student will be able to understand the design system using memory chips and peripherals chips for 16bit 8086 microprocessor
Question	Inputs to understand the concept of interfacing amongst elements / algorithms/system have been provided?
	<input type="button" value="Please Select"/>
CO4	Students will be able to understand and devise technique for faster execution of instruction, improve the speed of operations and enhance performance of microprocessor
Question	Inputs to understand and apply advanced principles of analysis and design have been provided?
	<input type="button" value="Please Select"/>
CO5	Student can distinguish between RISC and CISC Processors.

Fig. 2. e-feedback on course outcome

The sum of 5 factors reflects the quality factor or Q-factor. This result is weighted against other similar ratings within a course and after juxtaposing this against the feedback from faculty and the tests/examinations evaluation and also the concerned HOD impressions, an improvement map is given to the faculty.

The faculty can also suggest in its feedback, the requirement of any equipment/teaching aid/software/books etc. which can result in upgradation of T&L process in the course concerned.

All these feedbacks along with those from HODs, summarized and tabulated reaches the IQAC coordinator who then adds his impressions and suggestions and passes this information to the Principal, RAIT. The Principal adds his impressions/suggestions and remarks and so this consolidated on-line feedback travels back to HODs. Each HOD thus receives the active points to be implemented and then proceed to provide the “Action Taken Report”.

Analysis of feedback process for the academic year 2016-17 is under process. A sample for complete online feedback process for the year 2015-16 is given below:

➤ Departmental CMQA Report

Academic year - 2015/16 Department - **Electronics Semester - EVEN**

- **Teaching and Learning:** 10 senior faculty members of the department are involved in syllabus setting at University of Mumbai. 5 faculty members attended orientation programmes of newly added subjects. 7 Faculties are involved in paper setting of various subjects at University of Mumbai. For the new syllabus, a total of 10 Course outcomes are added in various subjects of 8th semester. To overcome the gap between industry needs and contents, regular workshops and expert lectures are arranged in the department. In 2015-16 total 14 no. of seminar, workshops and training courses were conducted by the department. Near about 4-5 remedial classes are conducted for every subject in every semester.
- **Innovation:** Department had conducted 1 webinar and lectures using NPTEL videos. Almost all faculties had taken lectures on Smart board. 4 Training Programs/workshops and 2 expert lectures were conducted during the semester. Faculty had total 45 publications in conferences and 11 publications in Journals in year 2015-16. Various innovative projects are done by students with faculties during the academic year. One of our student project named "Smart Suspension" got best hardware project award at IIT Bombay.

TABLE I: Feedback Status (DCF)

Internal EPI Range	Number of faculty
61 To 70	4
51 To 60	23
41 To 50	16
Below 40	3

TABLE II: Departmental Feedback Status

Q factor Range	Number of faculty
21 to 25	23
15 to 20	20
Below 15	0

➤ **Remark by CMQA:**

As reported by HOD-ELEX, participation of 10 faculty in UoM syllabus setting and 7 in paper setting is good initiative. Again 5 faculty attending orientation program is also good as also addition of 10 COs. Conduction of 14 workshops, seminars and training courses is impressive. Conduction of 4-5 remedial classes per course is also good. NPTEL video number should go up and so also use of smartboard teaching. On the R&D front the numbers are very good- 45 in conferences and 11 in journals. Award winning project at IIT "smart suspension" is commendable. The status on Q factor and also internal EPI is good overall except for 3 cases in EPI. HOD-ELEX requested to guide these staff members to change methodologies to move to upper brackets.

➤ **Remark by Principal:**

Faculty below 40% EPI needs to concentrate on Delivery Techniques. CMQA and HODs to ensure use of Interactive Learning Process and ensure better learning experience. EPI between 41 to 50% need to better teaching techniques On the whole well done. But we can do better.

➤ **Action taken by HOD:**

The main cause of poor EPI of the concerned faculty members is due to the tough level of university question paper. The students, especially weak, could not perform well in the university examination. Such students have been identified and are being provided extra coaching by the faculty members. Also the students with marks between 40 to 60 in the examination have been identified and they will be provided extra attention to help them in scoring marks.

Samples of alumni feedback, parents' feedback are placed below:



D Y PATIL

UNIVERSITY

RAIT ALUMNI FEEDBACK 2017

a) First Name:

b) Last Name:

c) Branch:

- Computer
- Electronics
- Electronics and Telecommunication
- Information Technology
- Instrumentation

d) Year of Passing:

e) Date of Birth:
(dd/mm/yy)

f) Have you appeared for:

- CAT
- GATE
- GMAT
- GRE
- Not yet

g) Have you appeared for:

- SSB
- MPSC
- UPSC
- Not yet

h) Are you government employee?

- Yes
- No

i) What is your current qualification?

j) Are you planning for higher studies?

- India
- Abroad
- Not yet

Fig. 3. Sample alumni feedback (page 1)



k) Are you self-employed?

Yes

No

l) If yes, please specify the nature of your work.

Assistant System Engineer (System Analyst)

m) How was your experience about development activities organized by RAIT?

Not OK Satisfied Good Very Good Excellent

n) How was your experience with Training and Placement activities organized by RAIT?

Not OK Satisfied Good Very Good Excellent

o) Would you like to take a role of mentor to current RAIT students:

- Workshops & Seminars
- Hands on Sessions
- Internship

- Referrals
- Social Responsibility
- No thanks for now

p) Any suggestions:

-

Fig. 4. Sample alumni feedback (page 2)



Department of Information Technology

PARENT FEEDBACK

Dear Parent,

Your suggestions and feedback is valuable to the institute as it gives an opportunity to see the institute through your eyes and to improve further to give a deserving environment for your child. We request you to give your sincere feedback.

Student Name: <u>Sneha Mhatri</u>	Father Name: <u>Pancharam Jhatri</u>	Mother Name: <u>Sugandha Jhatri</u>
Year / Division: <u>IT / A</u>	Occupation: <u>Employee</u>	Occupation: <u>Housewife</u>
Roll Number: <u>16111115</u>	Designation: _____	Designation: _____
Contact No: <u>9209966455</u>	Contact No: <u>9209966459</u>	Contact No: <u>7772337346</u>

Make a tick mark in the appropriate cell.

Sr. No.	Particulars	Excellent	Very Good	Good
1	Your ward feels happy, safe and has a sense of belonging feel for his department and college	<input checked="" type="checkbox"/>		
2	The college teaching standards and teacher's approach towards student	<input checked="" type="checkbox"/>		
3	Your ward's academic performance and practical skills progressing	<input checked="" type="checkbox"/>		
4	Library facility	<input checked="" type="checkbox"/>		
5	Your ward gets an overall grooming environment by co-curricular, extra-curricular and sports activities	<input checked="" type="checkbox"/>		
6	The college response to concerns of your ward	<input checked="" type="checkbox"/>		
7	Discipline maintained by the college	<input checked="" type="checkbox"/>		
8	Facilities and maintenance within the college	<input checked="" type="checkbox"/>		
9	Student counseling and guidance	<input checked="" type="checkbox"/>		
10	Any suggestions for improvement of the system			

Fig. 5. Sample parent feedback

Faculty participation in conferences and symposia

TABLE III: Faculty participation in international level conferences/symposia

Dept.	Name of faculty	Title of paper	Name of conference / symposia
IT	Nilima Dongre	TEAC:Time Efficient Asymmetric Cryptography for Enhancing Security in VANET	2nd International Conference on NASCENT Technologies in Engineering
		Hybrid IDS using SVM Classifier for detecting DoS attack in MANET Application	IEEE International Conference on I-SMAC(IOT in social, Mobile,Analytics and cloud)
		Security and Integrity of Log Files	International Conference on Innovative Systems
		Object storage architecture in cloud for unstructured data	International Conference on Inventive Systems and Control
		Binary key based permutations for medical image Encryption	International Conference on Inventive Computation Technologies
		International Conference on Inventive Computation Technologies	Design of efficient web vulnerability scanner
		Visibility enhancement for remote surveillance system	International Conference on Inventive Computation Technologies
		Public Auditing for shared data in cloud with safe user revocation	International Conference of Electronics,communication and aerospace technology(ICECA)
	Reshma Gulwani	Visibility enhancement for remote surveillance system	International Conference on Inventive Computation Technologies
		Predictive analytics for e-learning system	International Conference on Inventive Computation Technologies

		DNA iamge encryption using modified symmetric key	International Conference on Inventive Computation Technologies
		Binary key based permutations for medical image Encryption	International Conference on Inventive Computation Technologies
		Predicting Students Performance using CART approach in Data Science	International Conference of Electronics,communication and aerospace technology(ICECA)
Nilesh Marathe		Design of efficient web vulnerability scanner	International Conference on Inventive Computation Technologies
		Hybrid IDS using SVM Classifier for detecting DoS attack in MANET Application	IEEE International Conference on I-SMAC(IOT in social, Mobile,Analytics and cloud)
Dipti Jadhav		DNA iamge encryption using modified symmetric key	International Conference on Inventive Computation Technologies
		Security Threats in Application Layer in IOT Application	IEEE International Conference on I-SMAC(IOT in social, Mobile,Analytics and cloud)
Nikita Kulkarni		Security Threats in Application Layer in IOT Application	IEEE International Conference on I-SMAC(IOT in social, Mobile,Analytics and cloud)
Sujata Oak		Improved Duplicate Address Detection For Fast Handover	Second International Conference on Computing, Communication, Control and Automation [ICCUBEA2016)
Sachin Bhopi		DNA iamge encryption using modified symmetric key	International Conference on Inventive Computation Technologies
Samundis wary S.		Object storage architecture in cloud for unstructured data	International Conference on Inventive Systems and Control

		Public Auditing for shared data in cloud with safe user revocation	International Conference of Electronics,communication and aerospace technology(ICECA)
	Madhav Vyas	Predictive analytics for e-learning system	International Conference on Inventive Systems and Control
		Predicting Students Performance using CART approach in Data Science	International Conference of Electronics,communication and aerospace technology(ICECA)
CE	Dr. Ramesh Vasapanna vara	Securing Association Rule Mining with FP Growth Algorithm in Horizontally Partitioned Database	International Conference on Control Computing Communication and Materials (ICCCCM-2016) (IEEE Conference ID-39191)
	Dr. Leena Ragma	Delta E colour Feature based Multiobject Tracking using Murge and Spilt Approach and Kernel Filtering	International Conference onElectrical, computer and communication Technologies(IEEE ICECCT-2017)
	Dr. A. V. Vidhate	Security Attacks in IOT: A survaey	IEEE International Conference onI-SMAC(IOT in social, Mobile,Analytics and cloud)
	Vanita Mane	Analysis of data security by using Anonymization techniques .	6th international conference on cloud system and big data engineering, confluence 2016
	Vanita Mane	Topic Extraction and Sentiment Classification by using Latent Dirichlet Markov Allocation and SentiWordNet	International Conference on Advances in Information Communication Technology and Computing (AICTC)
	Vanita Mane	Log Based Privacy Preservation in Cloud Forensic	3 rd International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS)-2016

	Vanita Mane	Forensic Analysis and Evidence Collection for Web Browser Activity	International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT) International Institute of Information Technology (IIIT)
	Vanita Mane	Reflective SIFT for improving the detection of copy-move image forgery"	2016 Second International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN)
	Rajashree Shedge	Constraint Based Recipe Recommendation using Forward Checking Algorithm	IEEE
	Rajashree Shedge	Thermal Energy Scavenging in Wireless Body Area Network	Communication in Engineering and Technology
	Rajashree Shedge	Comparative Study of Feature Extraction Technique used in Sentiment Analysis	IEEE
	Rajashree Shedge	On Demand Recommendation using Association Rule Mining Approach	International Conference on Signal Processing, Communication Power and Embedded System (SCOPEs-October 2016)
	Vimla Jethani	Breast Thermogranas Analysis for Cancer Detection using Feature Extraction	Advances in Information Communication Technology and Computing (ACM)
	Vimla Jethani	Cross Platform C compiler	IEEE International Conference on Engineering Technology
	Vimla Jethani	Preventing Dos and MITM Attacks in Anonymous Locationbased Efficient Routing Protocol in MANET	IEEE International Conference on Engineering and Technology

CE	Vimla Jethani	A Novel Based Approach on Intersection Detection to Optimize Handover in Mobile WiMax	IEEE International Conference on Electrical, Electronics for Optimization Techniques
	Vimla Jethani	Diabetic Retinopathy Detection Through Image Mining for Type 2 Diabetics	2017 International Conference on Communication and Information
	Puja Padiya	Multiphase Mouse Dynamics Authentication System Using Behavioural Biometrics	International Conference On Signal Processing , Communication, Power and Embedded System (SCOPEs)
	Puja Padiya	Detection and Prevention of Wormhole Attack Based on Delay per Hop Technique for Wireless Mobile Ad-hoc network	International Conference On Signal Processing , Communication, Power and Embedded System (SCOPEs)
	Puja Padiya	Improve the Performance to implement Region Based Statistical Traffic Pattern Discovery System for MANET	International Conference On Signal Processing , Communication, Power and Embedded System (SCOPEs)
	Puja Padiya	Design of Efficient Web Vulnerability Scanner	International onference on Inventive Computing Technology
	Puja Padiya	Indian Sign Language to forecast text using leap Motion Sensor and RF Classifier	2016 Symposium on Colossal Data analysis and Networking
	Puja Padiya	Survey on Different IDS using Honeytoken Based Techniques to Mitigate Cyber Threats	International Conference on Electrical , Electronics and Optimization Techniques(ICEEOT)
	Tushar Ghorpade	Topic Extraction and Sentiment Classification by using Latent Dirichlet Markov Allocation and SentiWordNet	International Conference on Advances in Information Communication Technology and Computing (AICTC)

Tushar Ghorpade	On Demand Recommendation using Association Rule Mining Approach	International Conference on Signal Processing, Communication Power and Embedded System (SCOPEs-October 2016)
Tushar Ghorpade	Diabetic Retinopathy Detection Through Image Mining for Type 2 Diabetics	International Conference on Computer Communication and Informatics (ICCCI)
Tushar Ghorpade	Securing Association Rule Mining with FP Growth Algorithm in Horizontally Partitioned Database	International Conference on Control Computing Communication and Materials (ICCCCM-2016) (IEEE Conference ID-39191)
Tushar Ghorpade	Thermal Energy Scavenging in Wireless Body Area Network	Communication in Engineering and Technology
Tushar Ghorpade	Constraint Based Recipe Recommendation using Forward Checking Algorithm	IEEE
Apurva Karkhanis	Diabetic Retinopathy Detection Through Image Mining for Type 2 Diabetics	International Conference on Computer Communication and Informatics (ICCCI)
Shilpa Mahagaonkar	TEAC:Time Efficient Asymmetric Cryptography for Enhancing Security in WANET	2nd International Conference on Nacent Technologies in Engineering
Varsha Patil	Time Efficient Data Discovery and Dissemination Protocol in WSN	IEEE Sponsered 2nd International conference on Control Computing Communication and Materials
Preet Kaur	Topic Extraction and Sentiment Classification by using Latent Dirichlet Markov Allocation and SentiWordNet	International Conference on Advances in Information Communication Technology and Computing (AICTC)
Nivedita E.	An Effective Anonymization Technique Of Big Data Using suppression Slicing Method	Internation Conference On Signal and Information Processing (ICONSIP)

ET	Sujata Kadam	Advance algorithm for detection of selfish node in MANET	ICESCE 2016
	Sujata Kadam	finding trustworthy reliable path for mobile adhoc network	ICETT 2016
	Kausar Fakir	Analysis of various adder circuits in deep submicron process.	International conference on Automatic control and dynamic Optimization Techniq
	Digambar Puri	Wavelet Packet Sub-band Based Classification of Alcoholic and Controlled State EEG Signals	2nd International Conference on Communication and Signal Processing (ICCASP 2016)
	Kausar Fakir	Analysis of various adder circuits for low power consumption and minimum propogation delay	International conference on communication and signal processing
	Mr. Manoj Dongre	A Novel Methodology to Achieve Effective Message Authentication in VANET.	International conference on Emerging trends in Engineering ,Science and technology (ICEST)
	Mr. Manoj Dongre	Design of Data Transmission System for Application in Terahertz frequency	3rd International conference on Optoelectronics and applied Optics, OPTRONIX-2016
	Mr. Manoj Dongre	Target Tracking Using WSN For Effective Energy Utilization	International Conference on Electrical ,Electronics , Computer Science , Mathematics ,Physical Education and Management (ICEECMPE)
	Mr. Manoj Dongre	Performance Enhancement Using Power Control Algorithm for Uasan	International Conference on Electrical ,Electronics , Computer Science , Mathematics ,Physical Education and Management (ICEECMPE)
Mr. Manoj Dongre	Performance Enhancement of VANET using Fuzzy Logic and Network Coding	International Conference on Electrical ,Electronics , Computer Science , Mathematics ,Physical Education and Management (ICEECMPE)	

	Mr. Manoj Dongre	Design and Simulation of NIR Spectrometer Using Zemax	IEEE Sponsored 4th International Conference on Innovations in Information, Embedded and Communication System, (ICIECS-17)
	Dr.Chandrakant Gaikwad	Reduced interference Wigner-Ville time frequency representations using signal support information	2016 IEEE Annual India conference(INDICON)
	Dr.Chandrakant Gaikwad	Harmonic Product spectrum based Approach for tonic extraction in Indian Music	CAST 2016
	Mr.Rahul Kodag	Harmonic Product spectrum based Approach for tonic extraction in Indian Music	CAST 2016
	Sujata Kadam	Continous neighbor discovery approach for improvement of routing performance in WSN	I2CT 2017
EL	Dr. Vishwesh A. Vyawahare	Analysis of DC-DC Buck Converter with Lossy Filter using Fractional-order Model	2nd Biennial International Conference on Nascent Technologies in Engineering ICNTE-2017
	Dr. Vishwesh A. Vyawahare	Design of Fractional-order Analog Type-1 Chebyshev filter	Signal and Information Processing (IconSIP)
	Dr. Manmohan Singh Bhatia	Design and comparison of Electromagnetically coupled patch antenna arrays at 30 GHz	ICACIE, Springer India
	Dr. Gajanan Birajdar	A secure audio watermarking employing AES technique	International Conference on Inventive Computation Technologies (ICICT)
	Dr. Gajanan Birajdar	Audio Watermarking in Wavelet Domain using Fibonacci numbers	International Conference on Signal and Information Processing (IconSIP-2016)
	Dr. Gajanan Birajdar	Encrypted Audio Watermarking in Frequency Domain	International Conference on Smart Trends for Information Technology and Computer Communications

Dr. Sachin Umbarkar	Analysis of folded feed half Impulse Radiating Antenna for high-power impulse radiation	The Institution of Engineering and Technology
Dr. Sachin Umbarkar	Design and Analysis of CO2 sensor using COMSOL Multiphysics	COMSOL Conference
Dr. Sachin Umbarkar	Design and comparison of Electromagnetically coupled patch antenna arrays at 30 GHz	ICACIE, Springer India
Sharmila Petkar	Analysis of folded feed half Impulse Radiating Antenna for high-power impulse radiation	The Institution of Engineering and Technology
Sharmila Petkar	Design and performance improvements in an A6 relativistic magnetron	18th Asian Conference on Electrical Discharge
Clara Arackle	Analysis of DC-DC Buck Converter with Lossy Filter using Fractional-order Model	2nd Biennial International Conference on Nascent Technologies in Engineering ICNTE-2017
Shweta Ashtekar	Implementation of Controller Area Networks Data Compression Algorithm for Automatic Applications	International Conference on Electrical, Electronics and Communication Engineering
Sushma Kodagali	Analysis of various Adder Circuits for Low power consumption and minimum propagation delay	International Conference on Communication and Signal Processing (ICCASP)
Sushma Kodagali	Analysis of various adder circuits in deep submicron process	International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT)
Sujata Mendgudle	Design and comparison of Electromagnetically coupled patch antenna arrays at 30 GHz	ICACIE, Springer India
Sujata Mendgudle	Keypad /Bluetooth /GSM based Digital Door Lock Security System	ICCASP
Vaishali Jadhav	Use of Wireless Technologies in Energy Monitoring	International Journal of Engineering Research

Divya Shah	FPGA Implementation of Efficient Vedic Multiplier	IEEE International Conference on Information Processing, VIT, Pune
Hemlata Biradar	Design of Fractional-order Analog Type-1 Chebyshev filter	Signal and Information Processing (IConSIP)
Gajendra Rajpoot	Design and Analysis of CO2 sensor using COMSOL Multiphysics	COMSOL Conference
Gajendra Rajpoot	Keypad /Bluetooth /GSM based Digital Door Lock Security System	ICCASP
Rohit Chaurasiya	FPGA Implementation of Efficient Vedic Multiplier	IEEE International Conference on Information Processing, VIT, Pune
Ashwini A. Raorane	Analysis of DC-DC Buck Converter with Lossy Filter using Fractional-order Model	2nd Biennial International Conference on Nascent Technologies in Engineering ICNTE-2017
Rutuja Dive	Erratum to: Design of new practical phase shaping circuit using optimal pole-zero interlacing algorithm for fractional order PID controller	Analog Integrated Circuits and Signal Processing
Khushboo Pichhode	FPGA Implementation of Efficient Vedic Multiplier	IEEE International Conference on Information Processing, VIT, Pune
Parag Patil	Acceleration of Hough Transform Algorithm using Graphics Processing Unit (GPU)	International Conference on Communication and Signal Processing (ICCSP)
Gaurav Datkile	Sensorless control of IM using MRAS strategy and its closed loop stability analysis	Power Electronics, Intelligent Control and Energy Systems (ICPEICES), IEEE International Conference
Gaurav Datkile	Velocity Consensus of Multi-agent System with Path Tracking Ability	International Conference on Innovations in information Embedded and Communication Systems (ICIIECS16)

	Pratik Kadam	Dynamic and compact control of PV standalone system	Power Electronics, Intelligent Control and Energy Systems (ICPEICES), IEEE International Conference
	Pratik Kadam	Robust control of boost converter for flexible operation in PV based systems	Energy Efficient Technologies for Sustainability (ICEETS), 2016 International Conference
	Pratik Kadam	Control of standalone solar PV system in varying operating conditions for DC loads	Engineering and Technology (ICETECH), 2016 IEEE International Conference on
IN	Dr.Siuli Das	Classification of Orange Juice Adulteration using LDA, PCA and ANN	IEEE International Conference ICPEICES 2016, Delhi Technological University
		Segmentation Peril of Handwritten Hindi Text	4th International Conference on Recent Trends in Engineering Science and Management (ICRTESM - 2016), Goa
	Sharad P. Jadhav	Comparative study of Fuzzy and IMC based controllers for heat exchanger system	2016 International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT)
		Reduced-parameter fractional-order modeling of large dynamical system: Application to Gas Turbine	2016 International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT)
		Data Acquisition analysis in SLAM applications	2016 International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT)
		Design and simulation of Fuzzy and Fuzzy-PI controller for speed of Gas Turbine	2016 International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT)
	S. S. Kulkarni	Content Based Image Retrieval Using Color, Texture and Hybrid Features	International Journal of Engineering Research and Development 2016
		Segmentation of Lung Tumor Using GLCM Technique	International Journal of Engineering Research and Development (IJERD) 2016

		The two Channel Wavelet Filter Bank Design	International Journal of Engineering Research and Development 2016
		Wavelet Kernel Selection in Image Fusion for Human Lungs Cancer	Communications in Engineering and Technology, vol I, No.1, Jan 2017
	Gargi Phadke	A Comparative Analysis between Investigative and A Comparative Analysis between Investigative and Conventional A Comparative Analysis between Investigative and Conventional A Comparative Analysis between Investigative and Conventional Control Techniques for Movement Control of Amphibious Robots "	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
		Face Sketch Recognition based on SIFT and MLBP"	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
		Respiratory Sound Analysis for the Diagnosis of respiratory Abnormalities"	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
		Safeguarding Confidentiality by Fingerprint Combination	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
		Analysis for visual tracking via CONMF and PCA"	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
		Classification of Orange Juice Adulteration using LDA, PCA and ANN	”, IEEE International Conference ICPEICES 2016, Delhi Technological University
		Segmentation Peril of Handwritten Hindi Text	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa

		Analysis for variation in illumination for visual tracking via CONMF	Communications in Engineering and Technology, vol I,No.1,Jan2017
		Mean LBP and modified fuzzy C means weighted hybrid features for illumination Invariant Mean Shift Tracking	Springer Signal Image and Video Processing
	Shamal Salunkhe	A Comparative Analysis between Investigative and A Comparative Analysis between Investigative and Conventional A Comparative Analysis between Investigative and Conventional A Comparative Analysis between Investigative and Conventional Control Techniques for Movement Control of Amphibious Robots "	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
		Face Sketch Recognition based on SIFT and MLBP"	4th International Conference on Recent Trends in Engineering Science and Management (ICRTE SM - 2016), Goa
	Shital N.Patil	Characterization of Piezoelectric Micropump	International Conference on automatic control and dynamic optimization techniques (ICACDOT2016)
	Poonam S. Waje	Characterization of Piezoelectric Micropump	International Conference on automatic control and dynamic optimization techniques (ICACDOT2016)
	Sangram Jadhav	Design and Simulation of Fuzzy and Fuzzy-PI Controller For Speed of Gas Turbine	1st International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT 2016)
	Aprajita Singh	Design of PID,Fuzzy PD/PID and SIFLC for Higher Order System	International Journal of Reserach in Engineering and Science,Vol.4,Issue 7, July 2016

TABLE IV: Faculty participation in national level conferences/symposia

Dept.	Name of faculty	Title of paper	Name of conference / symposia
IT	Sujata Oak	Video Piracy Detection Using Invisible Watermarking	NSCFET-2017
	Swapnil Shinde	Brain Tumor Detection Using Statistical Features	NSCFET-2017
ET	Vijay Dahake	Development of matlab based on image stiching& Enhancement tool for detection of hidden objects at 89.4 Ghz	OPTRONIX 2016
	Manoj Dongre	Performance Analysis Using Frequency Domain Allocation For UASNs	NSCFET 2017
	Prajakta Papalkar	Internet of Things Based Smart Hostel Using ARM m0+ interfaced with ESP8266	NSCFET 2017
	Amruta Chintawar	SMART LAB	NSCFET 2017
	Manoj Dongre	Evaluation and Enhancement of VANETs using Fuzzy Logic with Network Coding	NSCFET 2017
	Priya Mule	Farm Produce : Logging And Monitoring	NSCFET 2017
	Debajani Mahanta	OPTICAL CLOAKING USING META-MATERIAL	NSCFET 2017
	Kirti Rathi	INTELLECTUAL POWER MANAGEMENT SYSTEM	NSCFET 2017
	Kausar Fakir	RF Based Home Automation System	NSCFET 2017
	Kausar Fakir	Wireless SCADA Systems using ZigBee	NSCFET 2017
	Kausar fakir	Advanced Irrigation System Using IoT	NSCFET 2017
	Chitra Suresh	IOT Based Greenhouse Robot	NSCFET 2017
	Sujata Kadam	Trust Aware Secure and Reliable Routing Approach in MANET	NSCFET 2017
	Manoj Dongre	Energy Efficiency in Wireless Sensor Network for Target Tracking	NSCFET 2017
	Mukesh Patil	Embedded System Based Shadow Bot: For Wireless Tracking Using Image Processing	NSCFET 2017
Sanjivani Chakote	Wireless Power Train	NSCFET 2017	
EL	Vishwesh Vyawahare	Analysis of DC-DC Boost Converter using Fractional-order Models	NCATM
	Clara Arackle	Analysis of DC-DC Boost Converter using Fractional-order Models	NCATM
	Vaishali Jadhav	Smart Energy Monitoring System	2017 National Conference

		on smart cities (NCSC'2017)
Ashwini Raorane	Analysis of DC-DC Boost Converter using Fractional-order Models	NCATM
Divya Shah	Autonomous Robot Navigation using SLAM Algorithm	NSCFET, RAIT
Vaishali Jadhav	Bridge Health Monitoring System Based on Internet of Things	NSCFET, RAIT
Suhash Labde	CLOSED LOOP BOOST CONVERTER	NSCFET, RAIT
Sujata Mendgudle	Compact Feeding Design for Patch Antenna	NSCFET, RAIT
Sujata Mendgudle	Electrogastrography: for early detection of stomach cancer	NSCFET, RAIT
Smitha Raveendran	Online Vehicle Tracking System Using GSM and GPS	NSCFET, RAIT
Vishwesh Vyawahare	GPU Computing of numerical Methods using MATLAB	NSCFET, RAIT
Sthuthi Rachel Joshua	Hand Gesture Recognition using OpenCVs	NSCFET, RAIT
Vaishali Jadhav	Implementation of physical layer in LTE	NSCFET, RAIT
Smitha Raveendran	IOT BASED GARBAGE MONITORING SYSTEM	NSCFET, RAIT
Anup Patil	IoT Based Smart Energy Grid	NSCFET, RAIT
Mrs.Trupti Agarkar	IoT based Tele-medicine System	NSCFET, RAIT
Rohit Chaurasiya	FPGA Implementation of Fractional-Order Integrodifferential Operators	NSCFET, RAIT
Trupti Agarkar	Library Management System using RFID Technology and GSM Module	NSCFET, RAIT
Vishwesh Vyawahare	Linear ODE Solver using GPU Computation	NSCFET, RAIT
Sushil M Labde	WIRELESS NOTICE BOARD USING BLUETOOTH TECHNOLOGY	NSCFET, RAIT
Pratibha Dhotre	Power Generation in Trains using Renewable Sources of Energy	NSCFET, RAIT
Anup Patil	Power Line Communication Based Power Management and Control System	NSCFET, RAIT
Shilpa Achaliya	RFID Based Smart Bus with Tracking	NSCFET, RAIT
Sakshi Somani	SELF BALANCING BOT	NSCFET, RAIT
Sakshi Somani	RFID Based Automatic Toll Collection and Security System	NSCFET, RAIT
Rohit Chaurasiya	Design and Implementation of Single Channel Electrocardiogram Acquisition System with Right Leg	NSCFET, RAIT

	Driver for optimum Noise Reduction	
Divya K Shah	FPGA Implementation of Image Enhancement using Histogram Equalization Technique	NSCFET, RAIT
Shweta Ashtekar	MULTI-FUNCTIONALROBOT	NSCFET, RAIT
Sushil Labde	Solar Inverter with Power Charging Circuit	NSCFET, RAIT
Kapila Moon	IoT based Vehicular Emission Detection System	NSCFET, RAIT
Poornima Talwai	Smart Dustbin	NSCFET, RAIT
Poornima Talwai	Smart Glove For Sign Language	NSCFET, RAIT
Sharmila Petkar	Design of Solar Cell using COMSOL	NSCFET, RAIT
Shweta Ashtekar	IoT Based Air Quality Monitoring System	NSCFET, RAIT
Prof.Poornima Talwai	Smart Automatic Speech Recognition Using Cepstral Analysis and Dynamic Time Warping	NSCFET, RAIT
Sujata Mendgudle	Diiferent Architectures of Power Grid	NSCFET, RAIT
Kapila Moon	Auto cruise control Using GPS And GSM	NSCFET, RAIT
Sushil M. Labde	Boost Converter Using Aurdino	NSCFET, RAIT
Poornima Talwai	Complex Hand Gesture Recognition	NSCFET, RAIT
Clara Arackel	Indoor Positioning System using Visible Light Communication	NSCFET, RAIT
Savita Bhosale	Advanced Military Spying And Bomb Disposal Robot	NSCFET, RAIT
Clara Arackel	AutomaticTollBooth	NSCFET, RAIT
Trupti Agarkar	Defending against various attacks in MANETs	NSCFET, RAIT
Gajanan Birajdar	Healthcare Monitoring using IoT	NSCFET, RAIT
Hemlata Biradar	Smart Garbage Disposal Monitoring System	NSCFET, RAIT
Savita Bhosale	Smart Shopping Cart using Radio Frequency Identification	NSCFET, RAIT
Gajanan Birajdar	Soldier Health And Position Tracking System	NSCFET, RAIT
Trupti Agarkar	WSN with Secure Data Discovery and Dissemination	NSCFET, RAIT
Sameer Chikane, Mukesh Patil, Vishwesh Vyawahare	Overview of Big Data Analytics	NSCFET, RAIT
Chaitanya Jage,	Object Recognition using Matlab	NSCFET, RAIT
Navin Singhaniya,	Study of Internal Fault and	NSCFET,

	Mukesh Patil, Vishwesh Vyawahare	Magnetizing Inrush Current in Power Transformers	RAIT
	Priya Khot Shweta Ashtekar	Review of 3D FPGA using Ant Colony Optimization	NSCFET, RAIT
	Akshay jadhav Trupti Agarkar Shushma Kodagli	Advanced Real time High Performance Time Based 3 Axis Capacitive Accelerometer	NSCFET, RAIT
	Chaitanya Jage, Mukesh Patil, Vishwesh Vyawahare	DC Microgrid : Technology and it's Application	NSCFET, RAIT
	Parag Patil	OLED	NSCFET, RAIT
IN	Sharad Jadhav	2016 Indian Control Conference (ICC)	2016 Indian Control Conference (ICC)
		Smart Shopping Trolley	NSCFET- 2017 , RAIT
		Smart Plant for Herbal Juice and its Automation through FX5U PLC	NSCFET- 2017 , RAIT
		Accelerometer Based Gesture Controlled Wheel Chair using Arduino	NSCFET- 2017 , RAIT
	Shirish Kulkarni	Smart Highway	NSCFET- 2017 , RAIT
	Gargi Phadke	Fire Sensing and extinguishing Robot	NSCFET- 2017 , RAIT
		Non matrix factorization based illumination robust meanshift tracking	NCC 2017
	Shamal Salunkhe	Automatic Door access using face recognition based on OpenCV and Python	NSCFET- 2017 , RAIT
	Shital Patil	Diagnosis of cardiac activity Tracable on Raspberry Pi	NSCFET- 2017 , RAIT
		Heart Rate and Temperature measurement using Embedded System	NSCFET- 2017 , RAIT
	Ragini Gaikwad	Automatic Water Distribution and billing system using PLC	NSCFET- 2017 , RAIT
		PLC based automatic car washing system	NSCFET- 2017 , RAIT
		Automation of Industrial material handling car using PLC and arduino	NSCFET- 2017 , RAIT
	Diptee Patil	Design and Development of wireless notice board with biometric door lock and Automatic light control for lab Automation	NSCFET- 2017 , RAIT
		Stydy of Ultrasonic motor	NSCFET- 2017 , RAIT

	Vivek Khalane	2-wheel Self Balancing Robot using Arduino and MPU 6050	NSCFET-2017 , RAIT
	Ramakant Patil	Door Lock System Based on Microcontroller	NSCFET-2017 , RAIT
	Sarika Oundhakar	Internet of Things based homeautomation system using Rasberry Pi	NSCFET-2017 , RAIT
		A Speed Checker to detect rash driving on highways	NSCFET-2017 , RAIT
		Design of Cochlear Implant using DSP Technique	NSCFET-2017 , RAIT
	Bhavesh Digey	Smart and Portable Health monitoring Device	NSCFET-2017 , RAIT
	Supriya Bhuran	Active RF based student tracking system with fingerprint authentication	NSCFET-2017 , RAIT

Faculty involvement in Curriculum development/BOS

TABLE V: Faculty participation in Curriculum development, syllabus setting and orientations

Name of faculty	Dept.	BOS member	Syllabus setting	Curriculum development	Orientation program
Sharmila Petkar	EL	Yes	Yes	Yes	Yes
Dr. Vishwesh Vyawahare	EL		Yes	Yes	Yes
Dr. Savita Bhosale	EL			Yes	
Poornima Talwai	EL		Yes	Yes	Yes
Sushil Labade	EL			Yes	
Trupti Agarkar	EL			Yes	
Smitha Raveendran	EL			Yes	
Shweta Ashtekar	EL			Yes	
Sushma Kodagali	EL		Yes	Yes	
Divya Shah	EL			Yes	
Nilima Dongre	IT		Yes	Yes	Yes
Dr. Ashish Jadhav	IT		Yes	Yes	
Reshma Gulwani	IT		Yes	Yes	
Ragha Leena	CE		Yes	Yes	
Snehal Gaikwad	CE			Yes	
Mane Vanita	CE		Yes	Yes	
Pulgam Namita	CE		Yes	Yes	
Chhabria Aditi	CE		Yes		
Vidhate Amar	CE		Yes	Yes	
Padiya Puj	CE		Yes	Yes	
Shedge Rajashree	CE		Yes	Yes	
Ghorpade Tushar	CE		Yes	Yes	
Ahir Sheetal	CE		Yes		
Bharne Smita	CE				

Kriti Karanam	CE		Yes		
Kolte Shilpa	CE			Yes	
Sumithra T V	CE		Yes		
P. S. Lokhande	CE		Yes	Yes	
Siuli Das	IN		Yes		
Sharad Jadhav	IN		Yes	Yes	
Shirish Kulkarni	IN		Yes	Yes	
Gargi Phadke	IN		Yes	Yes	
Shamal Salunkhe	IN		Yes	Yes	
Shital Patil	IN		Yes	Yes	
Ragini Gaikwad	IN		Yes	Yes	
Diptee Patil	IN		Yes	Yes	
Vivek Khalane	IN		Yes	Yes	
Supriya Bhuran	IN			Yes	
Mukesh Patil	ET	Invited	yes		Yes
Chandrakant Gaikwad	ET		yes		
Geeta Devurkar	ET		yes		
Sujata Kadam	ET		yes		
Ashwini Naik	ET		yes		
Manoj Dongre	ET		yes		
Dr. S. D. Shete	ES		Yes	Yes	Yes
Dr. N. R. Dasre	ES			Yes	

Details of workshops/training programs/seminars for 2016-17

TABLE VI: Workshop/training programmes in department of Computer Engineering (AY 2016-17)

Sr. No.	Workshops/Training Programs	Dates	Budget Sanctioned (INR)	Level
1	Expert lect. On Network security	22/09/ 2016	5,840	Institute
2.	Training Program on Advanced Web Technology	23-24/09/ 2016	9,750	Institute
3.	Expert Session on Network simulator 2	04/10 2016	6,620	Institute
4.	Workshop on Current Trends in Robotics	04/10/2016	12,340	Institute
5.	Expert Lect. On High Performance Processors	06/10/ 2016	6,120	Institute
6.	Expert lect. On Application on Discrete Structures	06/10/ 2016	6,160	Institute
7.	Workshop On Security Assets for Hacking Anticipation	12-13-14/01/2017	2,00,000	National
8.	Expert Lecture on Roll of System Software in application execution	17th October 2016	5,120	Institute
9.	Expert talk on Mitigating Cyber attacks with Vulnerability assessment	12th Jan 2016	7,350	Institute
10.	Expert talk on Cyber Laws and Real Life Cases	12th Jan 2016	7,350	Institute
11.	Expert talk on Industry Trends in Cyber Security	12th Jan 2016	5,850	Institute
12.	Hands on Session on Security Assets for Hacking Anticipation	12th Jan 2016	5,850	Institute
13.	Training program on Microsoft	11th june to 3rd july 2016	1,36,000	Institute
14.	R & D poster presentation	12th August 2016	6,000	Institute
15.	Expert lecturer on "Network Forensic"	15th feb 2017	4,840	Institute

16.	Expert Lecturer on "Practical approach To explore Data Mining"	28th feb 2017	8,645	Institute
17.	Workshop on Latex	23rd Feb 2017	9,680	Institute
18.	Noramliization and ORDBMS	17th Mar 2017	5,160	Institute
29.	Pointers and advanced concept in C	23rd Mar 2017	4,340	Institute
20.	Pointers in C	29th Mar 2017	4,700	Institute
21.	Anroid Workshop	29th Mar 2017	5,120	Institute
22.	Microsoft Training	1st & 2nd April 2017	1,24,000	Institute
23.	Training program on Microsoft Office Suite	23rd,24th &25th March 2017	1,00,000	Institute
24.	Project Compitition	1st Feb- 22 Mar 2017	22,000	Institute
25.	ACM-ICPC	11th Jan -15th 2017	5,000	National
26.	Workshop on Hackthone	27th March-3rd April 2017	50,000	National
Total			7,71,185/-	

TABLE VII: Workshop/training programmes in department of Electronics Engineering (AY 2016-17)

Sr. No.	Workshops/Training Programs	Dates	Budget Sanctioned (INR)	Level
1.	Summer Industrial Training in Embedded System	27/06/2016-16/07/2016	3,27,054	Institute
2.	Modern Digital Design Implementation using VHDL	2/9/2016-3/9/2016	10,000	Institute
3.	L1 Robotics Workshop	3/9/2016-4/9/2016	80,000	Institute
4.	Hands-on training on Open source Embedded platform Arduino	16/9/2016-17/9/2016	17,000	Institute
5.	Hands-on training on COMSOL Multiphysics	16/9/2016	10,000	Institute

6.	Hands-on workshop on Power Electronics Simulation using MATLAB Simulink	23/9/2016-24/9/2016	11,500	Institute
7.	Scientific Report Writing using LaTeX	15/9/2016 23/9/2016 27/9/2016 28/9/2016	NIL	Institute
8.	Image processing using Opencv python	24/9/2016-25/9/2016	8,000	Institute
9.	Hand-on training on Open source Embedded platform Arduino	29/9/2016-30/9/2016	8,000	Institute
10.	Hands-on training on TCAD Simulation	7/10/2016-8/10/2016	5,000	Institute
11.	Control System Design with MATLAB	2/01/2017-6/01/2017	80,000	National
12.	Introduction to MATLAB	9/01/2017-11/01/2017	5,000	Institute
13.	Hands-on training on Programmable System on Chip (PSOC)	24/02/2017, 26/02/2017	11,000	Institute
Total			5,78,154/-	

TABLE VIII: Workshop/training programmes in department of Instrumentation Engineering (AY 2016-17)

Sr. No.	Workshops/Training Programs	Dates	Budget Sanctioned (INR)	Level
1.	Siemens Training on Basic Automation PLC and SCADA	7/10/2016 To 10/10/2016	2,40,000	Institute
2.	Scientific Report Writing using LaTeX (for UG)	27/9/2016 To 28/9/2016	4,000	Institute
3.	Hand-on training on Open source Embedded platform Arduino	16/9/2016 To 17/9/2016	10,000	Institute
4.	Control system Design with MATLAB	2/1/2017 To 6/01/2017	75,000	National
5.	Hands-on training on Arduino platform(ISA)	18/2/2017 To 19/02/2017	10,000	Institute
6.	Embedded Systems using ARMMbed	17/3/2017 To 19/3/2017	90,000	Institute

7.	Hands on workshop on Yokogawa DCS system	29/3/2017 To 1/4/2017	1,20,000	Institute
Total			5,49,000/-	

TABLE IX: Workshop/training programmes in department of Electronics and Telecommunication Engineering (AY 2016-17)

Sr. No.	Workshops/Training Programs	Dates	Budget Sanctioned (INR)	Level
1.	Summer Industrial Training in Embedded System	27/06/2016-16/07/2016	3,27,054	Institute
2.	Workshop EM-cube	4 th and 5 th July 2016	6,000	Institute
3.	Getting Started with Arduino	23 rd to 24 th September,2016	20,000	Institute
4.	Workshop on P-spice Simulation for Analog Circuit	6 th and 7 th October 2016	6,800	Institute
5.	Hands-on training on TCAD Simulation	7/10/2016-8/10/2016	5,000	Institute
6.	Control System Design with MATLAB	2 nd to 6 th January2017	94,500	National
7.	Introduction to MATLAB	9 th to 11 th January 2017	14,000	Institute
8.	Antenna Design Tool using EM-Cube	10 th and 11 th January 2017	10,000	Institute
9.	Expert talk on ‘Wave Equation & Applications of Microwave’	17 Feb 2017	4,360	Institute
Total			4,87,714/-	

TABLE X: Workshop/training programmes in department of Engineering Sciences (AY 2016-17)

Sr. No.	Workshops/Training Programs	Dates	Budget Sanctioned (INR)	Level
1	A seminar on “New Energy for New World” by Dr. Sanjay M Gopal, VJTI	30th March 2017	5,000	Institute
Total			5,000/-	

TABLE XI: Workshop/training programmes in department of Information Technology (AY 2016-17)

Sr. No.	Workshops/Training Programs	Dates	Budget Sanctioned (INR)	Level
1.	ISTE approved Faculty development program on “Research Advances on IoT”	21 st June to 25 th June 2016.	2,33,398	State
2.	Hands on Training Program on “Oracle Java Certification Program”	2nd January to 6th January 2017	1,27,313	Institute
3.	Hands on training on “Report Writing using LaTeX”	10 Feb-17 and 17 Feb-17	NIL	Institute
4.	Hands on Training on Python	19 Feb-17 to 20 Feb-17	30,000	Institute
5.	Expert talk on “Network Security”	22 Feb 2017	NIL	Institute
6.	Expert talk on “Wireless Body Area Network”	28 Feb 2017	NIL	Institute
7.	Expert talk on “Master Data Management Challenges”	22 March 2017	NIL	Institute
	Total		3,90,711/-	

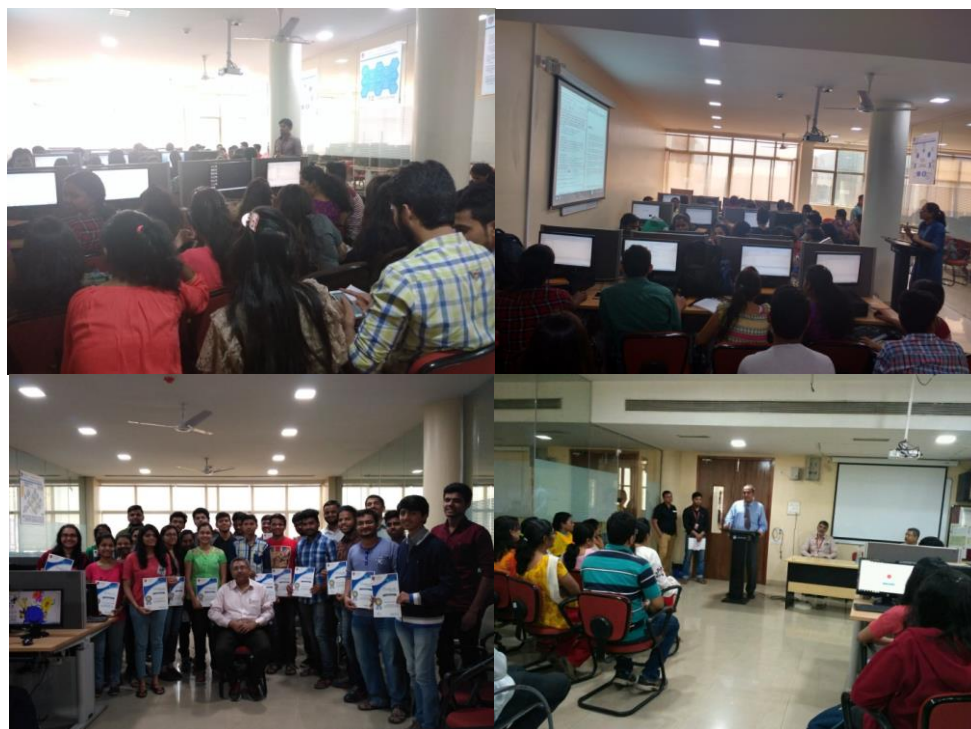




Fig. 6. Workshops and training programmes for students conducted in various departments (AY 2016-17)

Details of major and minor projects

TABLE XII: Details of completed major projects

Sr. No.	Completed	Outlay
1.	Modeling and Control of Step down DC-DC Converter	80,000/-
	Total	80,000/-

TABLE XIII: Details of ongoing major projects

Sr. No.	Ongoing	Outlay
1.	Biogas Generation and Enrichment Project	25,00,000/-
2.	Design and Implementation of DC microgrid for rural development	3,50,000/-
3.	Web Based Mobile application for secured office automation	3,00,000/-
	Total	31,50,000

TABLE XIV: Details of completed minor projects

Sr. No.	Project title	Outlay
1.	Arduino Based mini CNC Plotter	2800/-
2.	Shadow Humanoid	64,700/-
3.	Solar powered segway	15,000/-
4.	Smart Classroom	9,700/-
5.	Autonomous Robot Navigation using SLAM Algorithm	21,500/-
6.	FPGA based Sleep Stage Classification using EEG	40,795/-
7.	Smart Notice Board	11,440/-
8.	Development of Op-amp based emulator for IO/FO linear system	15,000/-
9.	Optimization of photovoltaic energy through power electronics drives	25,000/-
10.	Error Bot	30,680/-
11.	Intelligent Bus Transport System	10,133/-
12.	Object Sorting using Robotic Arm and Image Processing	3,010/-
13.	Library Assistant Robot	10,000/-
14.	Online Logbook Management System	30,000/-
	Total	2,89,758

TABLE XV: Details of ongoing minor projects

Sr. No.	Project title	Outlay
1.	Mobile Air Pollution monitoring	20,000/-
2.	Digital Course File	50,000
3.	e-Bonafide	50,000
4.	e-PageRAIT	50,000
5.	Railway Concession	50,000
6.	e-Transfer and Migration Certificate	50,000
7.	Feedback System	25,000
8.	Library Management System	1,00,000
9.	Accident Detection and Location Display System	25,000/-
10.	RAIT_PRTOOL	1,00,000/-
11.	RAIT_DB_MINERTOOL	1,00,000/-

	Total	6,20,000
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TABLE XVI: Details of newly sanctioned projects

Sr. No.	Sanctioned	Outlay
1.	Diagnosis of cardiac activities Tractable on Raspberry Pi (DOCTOR Kit)	25,000/-
2.	EEG based Drowsiness Detection	48,000/-
	Total	73,000/-

Details of research publications (journals)

TABLE XVII: Faculty publications in journals

Author Name	Title/Topic	Name of the Journal	Citation index	Impact Factor	H-factor	Year of Publication	Scopus Number
Dr. M. D. Patil	Design of robust fractional-order controllers and pre filters for multivariable system using interval constraint satisfaction technique	International Journal of Dynamics and Control	1	NA	1	ISSN: 2195-268X, Vol 5, No. 1, March 2017	1
Dr. Ayush Saxena	Practicle -in- cell Modeling of Axial and Coxaial Virtual Cathode Oscillators	IEEE transactions on Plasma Science		0.958	1	ISSN: 0093-3813, vol. 44, No 10, July 2016	2
Dr. Ayush Saxena	Effect of coupling in the Si 28 + Sm 154 reaction studied by quasi-elastic scattering	Physical Review C - Nuclear Physics		3.14		ISSN: 2469-9985, Vol. 94, No. 3, September 2016	
Hemlata Patil	On the Throughput and Energy Consumption in External sensing Cognitive radio	Advanced Science Letters journal	-	0.42	1	ISSN: 1936-6612, Volume 69– No.8, Nov 2016	2
Hemlata Patil	Energy Efficient External Sensing in Multichannel Cooperative Cognitive Radio	Journal of Green Engineering	-	0.82	1	ISSN:1904-4720, Volume 6– No.2, Oct 2016	
Hemlata Patil	Optimized Cooperative Spectrum Sensing Schemes for Cognitive	International Journal of Computer Applications	-	0.8		ISSN: 0975 – 8887, Vol :1 ,Aug 2016	

	Radio Networks						
Pramod Kachare	Novel approach of MFCC based alignment and WD-residual modification for voice conversion using RBF	Neurocomputing	-	2.39	1	ISSN: 0925-2312, Vol. 237, 2017	2
Pramod Kachare	Voice conversion system using salient sub-bands and radial basis function	Neural Computing and Applications		1.42	1	ISSN: 0941-0643, Vol 27, No, 8, Nov 2016	
Manoj Dongre	Optimized Cooperative Spectrum Sensing Schemes for Cognitive Radio Networks	International Journal of Computer Applications	-	0.8		ISSN: 0975 – 8887, Vol :1 ,Aug 2016	
Dr. Leena Raghya	Marathi Characters Segregation and Recognition Using Clustering and Neural Network	International Journal of Communication in Engineering and Technology				Jul-16	
Harsha Saxena	An Agent Based Approach for Lead Management System in Banking System	International Journal of Recent and Innovative Techniques in Computing and Communication		5.837	2	14 th June 2016	
Ekta Sarda	An Agent Based Approach for Lead Management System in Banking System	International Journal of Recent and Innovative Techniques in Computing and Communication		5.837	2	14 th June 2016	

Dr. Vishwesh A. Vyawahare	Design of fractional-order PI controllers and comparative analysis of these controllers with linearised, non-linear integer-order and nonlinear fractional order representation of PVSM	International Journal of Dynamics and Control	3	0.422	5	2016	
Dr. Vishwesh A. Vyawahare	Nuclear Reactor with Sub diffusive Neutron Transport: Development of linear fractional order model	International Journal of Dynamics and Control	-	0.422	5	2017	
Mr. Gajanan Birajdar	Narrow band interference elimination based on compressed sensing in UWB energy detector	Defence Science Journal, DRDO		0.428		2016	
Dr. Sheila Mahapatra	A Hybrid Approach for Secured Optimal Power Flow and Voltage Stability with TCSC Placement	International Journal of Advanced Science and Technology		2.87	4	2016	
Dr. Sheila Mahapatra	RBFNN based GSA for optimizing TCS	World Journal of Modelling		0.79	4	2016	

	C parameters and location- A secured optimal power flow approach	and Simulation					
Rutuja Dive	Design of new practical phase shaping circuit using optimal pole zero interlacing algorithm for fractional order PID controller.			0.592	1	2017	
Dr. Gajanan Birajdar	Passive method for rescale detection using quadrature mirror filter based higher order statistical features	International Journal of Wavelets, Multiresolution and Information Processing, World Scientific		0.500	4	2016	
Sharad P. Jadhav	Design of Robust fractional order lead compensator	IJCAS, International Journal of Control, Automation, and Systems.		1.219		ISSN:1598-6446 (Print) ISSN :2005-4092(electronic)	1
Dipti Jadhav	proposed local tetra patterns- an advanced feature descriptor for CBIR	International Journal of Innovative Research in Computer and Communication Engineering		6.577		ISSN(Online): 2320-9801 ISSN (Print): 2320-9798 Jan 2017	
Dipti Jadhav	a survey on feature extraction techniques of	International Journal of Innovative Research in		6.577		ISSN(Online): 2320-9801 ISSN (Print) :	

	CBIR and Image indexing techniques	Computer and Communication Engineering				2320-9798 July 2016	
Nilima Dongre	Analysis of copy-move forgery detection in digital image	International Journal of Engineering Development and Research		4.98		ISSN: 2321-9939 March 2017	
Kshipra Tatkare	proposed local tetra patterns- an advanced feature descriptor for CBIR	International Journal of Innovative Research in Computer and Communication Engineering		6.577		ISSN(Online): 2320-9801 ISSN (Print): 2320-9798 Jan 2017	
Kshipra Tatkare	a survey on feature extraction techniques of CBIR and Image indexing techniques	International Journal of Innovative Research in Computer and Communication Engineering		6.577		ISSN(Online): 2320-9801 ISSN (Print) : 2320-9798 July 2016	

Consultancy details

TABLE XVIII: Details of consultancy projects

Department	Project title	Revenue generated
Departments of IT and CE	Smart Attendance System	2,87,900/-
Departments of IN, EL and ET	Workshop on “Control System Design with MATLAB”	75,000/-
	Consultant to INO project TIFR	1,50,000/-

Conference organized by the Institution

TABLE XIX: Details of technical events organized by Institute

Sr. No.	Title	Level	Sponsoring agency
1	NSCFET-17	National	RAES
2	Technical Quiz-Our QuizMaster	National	RAES
3	Srijan Project Competition	University	RAES
4	Avishkar Interuniversity Research Competition	State	University of Mumbai



Fig. 7. Technical events organized by Institute (AY 2016-17)

Details of collaborations and linkages

TABLE XX: Industry/Company collaborations by Institute

Sr. No.	Industry/Company	Level
1	Roy Eddington-Charles & Associates	International
2	Yokogawa	International
3	Barclays	International
4	Internshaala	National
5	Gauranga SoftTech	National
6	Oracle Workforce Development Program	International
7	TCS	International
8	Microsoft	International
9	NMMC for solid waste management	National
10	EduVance Technologies	National
11	Cypress Semiconductors	International
12	IBM	International

➤ Linkages:

- EduVance Technologies
- Cypress Semiconductors
- IBM
- Oracle
- TCS
- Microsoft

Details of patents

TABLE XXI: Details of patent publications by faculty

Sr. No.	Patent Name	Applied By	Year
1	Passive Contrast Enhancement detection using statistical learning approach for digital image (Idea Patent)	Dr. Gajanan Birajdar	2016-17
2	Laboratory Setup for Learning Fractional-order Control Systems	Dr. Vishwesh Vyawahare Dr. M. D. Patil	2016-17
3	A technology (process) for identifying attainable, measurable and verifiable goals and objectives FR	Dr. Ramesh Vasappanavara Aditi Chhabria Dr. M. M. Bhatia	2016-17
4.	System and Method for making highly loaded E-Commerce Website scalable	P. S. Lokhande	2015-16
5.	Secure credit card model for Ecommerce transactions with USB flash	P. S. Lokhande	2015-16

Research awards by faculty

TABLE XXII: Faculty research achievements

Sr. No.	Name of faculty	Award	Level
1.	Mrs. Shital Patil	Best Project in software Category (NSCFET-2017)	National
2.	Mr. Ramakant Patil	DOOR LOCK SYSTEM BASED ON MICROCONTROLLER NSCFET – 2017, RAIT Session Winner	National
3.	Rohit Chaurasiya	Cortic Pad Besthardware Project Award(BHPA), 2017	National
4.	Rohit Chaurasiya	Cortic Pad NMIMS Ulectro 2017 Project Competition	National
5.	Divya Shah	Error Bot eYIC-2017, IIT Mumbai	International
6.	Rohit Chaurasiya	Cortic Pad 1 st Prize RAIT best Project, Srijan-2017, RAIT	National
7.	Trupti Agarker	Omni Crawler ELECTRO WIZ2017 Inter collegiate project competition under SYNERGY 17 at DattaMeghe College of Engineering	National
8.	Sushma Kodgali	FRDKL25Z Based gesture controlled wheel chair ELECTRO WIZ2017 Inter collegiate project competition under SYNERGY 17 at Datta Meghe College of Engineering	National
9.	Sujata Mendgudle	NSCFET – 2017, RAIT Session Winner	National
10.	Prajakta Papalkar	NSCFET – 2017, RAIT Session Winner	National
11.	Poornima Talwai	NSCFET – 2017, RAIT Session Winner	National
12.	Dr. Mukesh Patil	NSCFET – 2017, RAIT Session Winner	National
13.	Poornima Talwai	NSCFET – 2017, RAIT Session Winner	National
14.	Mrs. Trupti Agarkar	NSCFET – 2017, RAIT Session Winner	National
15.	Rohit Chaurasiya	NSCFET – 2017, RAIT Session Winner	National
16.	Sujata Kadam	NSCFET – 2017, RAIT Session Winner	National
17.	Rohit Chaurasiya	NSCFET – 2017, RAIT Session Winner	National

18.	Sharmila Petkar	NSCFET – 2017, RAIT Session Winner	National
19.	Savita Bhosale	NSCFET – 2017, RAIT Session Winner	National
20.	Chaitanya Jage	NSCFET – 2017, RAIT Session Winner	National
21.	Prof. Vishwesh Vyawahare	Excellence in R&D Awards	College
22.	Mrs. Trupti Agarker	Excellence in R&D Awards	College
23.	Mrs. Divya Shah	Excellence in R&D Awards	College
24.	Mr.Rohit Chaurasiya	Excellence in R&D Awards	College
25.	Sharmila Petkar	Avishkar-16, Mumbai	District
26.	Mrs. Vaishali Jadhav	Avishkar-16, Mumbai	University
27.	Mrs. Sujata Mendagudle	Avishkar-16, Mumbai	University
28.	Mrs. Vanita Agrawal and Vanita Mane	Paper Publication – Best paper award:	International
29.	Shanti terese	Avishkar	State
30.	Shanti Therese	Avishkar	University
31.	Vanita Mane	Avishkar	University
32.	Sheetal Jagtap	Avishkar	University
33.	Keerti Pawar	Avishkar	University
34.	Preet Kaur	Avishkar	University
35.	Varsha Patil	Avishkar	University
36.	Vanita Mane	Avishkar	District
37.	Keerti Pawar	Avishkar	District
38.	Sheetal Jagtap	Avishkar	District
39.	Shanti Therese	Avishkar	District

NCC/NSS details

TABLE XXIII: NSS event by Institute (AY 2016-17)

Sr. No.	Events	Date	No. of Participants
1	Christmas celebration 2016 with underprivileged children	24/12/2016	40
2	Diwali celebration with Underprivileged children	28/10/2016	38
3	Candle of Knowledge To teach children from Girija Balgruha	2016-2017	20
4	Donation Drive of unused clothes, books etc.	29 August- 23 September 2016	50
5.	Food Donate Donate food among poor and needy	7/9/2016	30
6.	Donation of books to Junoon Foundation	1 st - 7 th October	15
7.	Joyfest Fun events for underprivileged children(14 events)	29 th September to 1 st October	40
8.	Tree Plantation Drive	10/10/2016	30
9.	Udaan To organize fund raiser Marathon	29/01/2017	2300
10.	Army day Fund Collection	15/01/2017	4250
11	Self Defense Workshop	10 th March 2017	250
12	Wall Painting with messages of cleanliness	17 th -19 th Feb, 2017	12

TABLE XXIV: NCC event by Institute (AY 2016-17)

Sr. No.	NCC Events
1	Blood Donation
2	Tree Plantation
3	Swach Bharat Abhiyan
4	Road Safety Awareness Campaign
5.	Personality Development
6.	Adventure campus (River Rafting, River crossing, Rope Climbing, Trekking, paragliding)
7.	Path Finding Event
8.	Annual Training Camp
9.	National Integration Camp
10.	Firing Camp

TABLE XXV: Awards and achievement in NCC

Sr. No.	NCC Event	Name of Student	Awards
1.	Firing Camp	Rahul Khandalkar	1 st Prize
2.	Road Safety Awareness Campaign	Yash Khade, Rahul Khandalkar	3 rd Prize
3.	NCC achievement	Rahul Khandalkar	Direct selection for SSB



Fig. 8. NSS events by Institute



Fig. 9. Social responsibility by Institute



Fig. 10. NCC at Institute



Fig. 11. NCC training and events at Institute

Increase in infrastructure photos



Fig. 12. Classroom libray and food café at Institute

Details of no. of computers

TABLE XXVI: Details of computing machine at Institute

Department	Desktops		Laptops		e-kiosks	
	Existing	Added	Existing	Added	Existing	Added
IT	203	50	33	05	01	--
CE	363	40	39	10	01	--
IN	55	00	31	03	01	--
EL	90	00	18	31	01	01
ET	67	30	36	23	01	--
ES	59	66	17	12	0	0

DCF for CO, PO, PEO, vision, mission attainment

Name of Subject :	VLSI Design			Subject Code :	ETC606
Class :	T.E.	Division :	ET-A	Semester :	VI
Name of Faculty :	Mrs. Sneha Solanki			SDRN. No.	644
Course Outcome	Theory		Practical		
	CO Attainment	Weighted CO Attainment	CO Attainment	Weighted CO Attainment	
CO1	72.95	10.94	0	0	
CO2	83.35	16.67	0	0	
CO3	87.5	17.5	0	0	
CO4	0	0	0	0	
CO5	0	0	0	0	
CO6	0	0	0	0	
CO Attainment	40.63	45.11	0	0	
Avg. CO Attainment (Theory +Practical)	45.11				
Level of Attainment for Internal Assessment				0	

Fig. 13. DCF for CO attainment

PROGRAM EDUCATIONAL OBJECTIVE DETAILS			
Ramrao Adik Institute of Technology, Nerul			
Department :	Electronics		
Academic Year :	2016-17		
Name of HOD :	Dr Vishvesh Vyawahare	SDRN. No.	598
PEO's	Description		
PEO-1	To produce Electronics Engineering graduates who have strong foundation in mathematics, sciences and basic engineering and prepare them with strong engineering knowledge.		
PEO-2	To provide technical competence to use techniques, skills and modern engineering tools that allow them to work effectively in areas such as basic and advanced electronics, Embedded systems, VLSI design, control systems and communication systems		

Fig. 14. DCF for PEO attainment

Ramrao Adik Institute of Technology, Nerul														
Department :			Electronics											
Class :			0						RAIT Admit Code :			ALSEELFALS		
Name of HOD:			Dr Vishvesh Vyawahare						SDRN. No. :			598		
Subject Code	Subject Name	Sem	Program Articulation Matrix											
			P _a	P _b	P _c	P _d	P _e	P _f	P _g	P _h	P _i	P _j	P _k	P _l
EXC302	Electronic Devices	3	H	H	L	-	L	L	L	M	L	-	-	-
EXC303	Digital Circuit and Design	3	M	M	M	M	M	L	-	-	L	-	-	M
EXC304	Circuit Theory	3	M	H	M	-	M	M	M	L	L	L	L	L

Fig. 15. Average course outcome articulation matrix

Ramrao Adik Institute of Technology, Nerul														
Department :			Electronics											
Class :			0						RAIT Admit Code :			FALSEELFALSE		
Name of HOD:			Dr Vishvesh Vyawahare						SDRN. No. :			598		
Subject Code	Subject Name	Sem	Program Articulation Matrix											
			P _a	P _b	P _c	P _d	P _e	P _f	P _g	P _h	P _i	P _j	P _k	P _l
EXC302	Electronic Devices	3	79.80	79.55	82.50	0.00	82.50	82.50	82.50	81.67	82.50	0.00	0.00	0.00
EXC303	Digital Circuit and Design	3	73.05	71.53	72.79	73.75	73.76	84.33	0.00	0.00	78.33	0.00	0.00	73.91
EXC304	Circuit Theory	3	90.14	89.87	91.14	0.00	89.38	92.05	90.55	92.20	91.52	94.63	94.63	94.50

Fig. 16. Average program outcome attainment

Ramrao Adik Institute of Technology, Nerul										
Department :		Computer								
Class :		B.E.				RAIT Admit Code :			11CS1-8	
Name of Faculty :		Dr. Leena Ragha				SDRN. No. :			147	
Program Outcome	PO Attainment	Program Educational Objectives								
		PEO-1	PEO-2	PEO-3	PEO-4	PEO-5	PEO-6	PEO-7	PEO-8	PEO-9
P _a	91.44	27.44	18.29	18.29	9.15	9.15	9.15	0	0	0
P _b	90.72	18.15	18.15	9.08	18.15	9.08	18.15	0	0	0
P _c	90.97	18.2	27.3	9.1	9.1	18.2	9.1	0	0	0
P _d	91.11	18.23	18.23	9.12	18.23	18.23	9.12	0	0	0
P _e	88.12	17.63	17.63	17.63	8.82	8.82	17.63	0	0	0
P _f	92.01	18.41	9.21	18.41	18.41	9.21	18.41	0	0	0
P _g	92.25	9.23	9.23	18.45	18.45	18.45	18.45	0	0	0

Fig. 17. Program Education Objective (PEO) attainment (Computer Engineering)

Name of Faculty :		Dr. Leena Ragha			SDRN. No. :		147	
Program Educational Objectives	PEO Attainment							
		Mission-1	Mission-2	Mission-3	Mission-4	Mission-5	Mission-6	Mission-7
PEO-1	90.77	18.16	18.16	27.24	18.16	9.08	0	0
PEO-2	90.25	18.05	27.08	18.05	9.03	18.05	0	0
PEO-3	90.63	18.13	18.13	18.13	18.13	18.13	0	0
PEO-4	90.64	18.13	18.13	27.2	18.13	9.07	0	0
PEO-5	90.56	18.12	9.06	18.12	27.17	18.12	0	0
PEO-6	90.44	18.09	18.09	27.14	18.09	9.05	0	0
PEO-7	0	0	0	0	0	0	0	0
PEO-8	0	0	0	0	0	0	0	0
PEO-9	0	0	0	0	0	0	0	0
Mission Attainment (in %)		90.57	90.55	90.59	90.6	90.56		
Final Mission Attainment				90.574				

Fig. 18. Mission attainment (Computer Engineering)

Class :		B.E.			RAIT Admit Code :		11CS1-8	
Name of Faculty :		Dr. Leena Ragha			SDRN. No. :		147	
Program Educational Objectives	Mission Attainment							
		Vision-1	Vision-2	Vision-3	Vision-4	Vision-5	Vision-6	Vision-7
Mission-1	90.57	18.12	18.12	18.12	18.12	18.12	0	0
Mission-2	90.55	18.11	27.17	18.11	9.06	18.11	0	0
Mission-3	90.59	9.06	18.12	18.12	18.12	27.18	0	0
Mission-4	90.6	18.12	9.06	18.12	18.12	27.18	0	0
Mission-5	90.56	27.17	18.12	18.12	9.06	18.12	0	0
Mission-6		0	0	0	0	0	0	0
Mission-7		0	0	0	0	0	0	0
Total Vision Attainment (in %)		90.58	90.59	90.59	90.6	90.6		
Final Vission Attainment				90.592				

Fig. 19. Vision attainment (Computer Engineering)

Training/Counseling for Higher Studies, Campus Placement (for 2016-17)

TABLE XXVII: Training/Counselling events for Higher Studies, Campus Placement (AY 2016-17)

Sr. No.	Program	Target Group	Duration	Year
1	TCS Post offer Connect	B.E Students	1 day	2016
2	Workshop on Process and Activities of Teach for India	B.E Students	1 day	2016
3	Code for Good Seminar	T.E Students	1 day	2016
4	TCS Faculty Development Session	Faculty	1 day	2016
5	Post offer Connect Session	B.E Students	1 day	2016
6	Pre-Final year connect	T.E Students	1 day	2016
7	Best Student of the Year Nomination round	B.E Students	1 day	2016
8	Aptitude Workshop for Final Year Students	Batch A- 100 B.E Students	8 days	2016
9	Aptitude Workshop for Final Year Students	Batch B- 100 B.E Students	8 days	2016
10	Soft Skills Workshop for Final year students	Batch A- 100 B.E Students	8 days	2016
11	Soft Skills Workshop for Final year students	Batch B- 100 B.E Students	8 days	2016
12	Aptitude Workshop for Final Year Students	Batch C- 100 B.E Students	8 days	2016
13	Aptitude Workshop for Final Year Students	Batch D- 100 B.E Students	8 days	2016
14	Soft Skills Workshop for Final year students	Batch C- 100 B.E Students	8 days	2016
15	Soft Skills Workshop for Final year students	Batch D- 100 B.E Students	8 days	2016
16	Aptitude Workshop for Final Year Students	Batch E- 100 B.E Students	8 days	2016
17	Aptitude Workshop for Final Year Students	Batch F- 100 B.E Students	8 days	2016
18	Soft Skills Workshop for Final year students	Batch E- 100 B.E Students	8 days	2016
19	Soft Skills Workshop for Final year students	Batch F- 100 B.E Students	8 days	2016
20	Aptitude Workshop for Final Year Students	Batch G- 100 B.E Students	8 days	2016
21	Aptitude Workshop for Final Year Students	Batch H- 100 B.E Students	8 days	2016
22	Soft Skills Workshop for Final year students	Batch G- 100 B.E Students	8 days	2016
23	Soft Skills Workshop for Final year students	Batch H- 100 B.E Students	8 days	2016
24	CodeVita Awareness Seminar	B.E Students	1 day	2016
25	Connect with Students	B.E Students	1 day	2016
26	Ericsson Technical Training	B.E Students	2 days	2016

27	Faculty Enablement Program at TCS Chennai	TA Faculties (Expenses covered by RAIT)	8 days	2017
28	Faculty Enablement Program at TCS Thiruvananthapuram	TA Faculties (Expenses covered by RAIT)	8 days	2017
29	Youth Employability Initiative	By Prof. Dr. Vidhate A.V. and T.E. students	1 day	2017
30	ESRM case Study award ceremony	By Prof. Dr. Vidhate A.V. and students	1 day	2017
31	University Relations Day	By Prof. Dr. Vidhate A.V.	1 day	2017
32	Faculty interaction with Mr. Bruce Momijan ,Co-Founder Postgre SQL (World's most advanced Open Source Database)	Faculty (Ms. Aditi and Ms. Sujata Oak)	1 day	2017
33	Webinar on Pre-Joining Formalities by Mr. Hari Menon	Offered students and T.E. Students	1 day	2017
34	Youth Employability Initiative	B.E. students	1 day	2017
35	Best Employer Award	TCS Gaurav Gandhi & Mr. Ratan Chopra	1 day	2017
36	JPMC Competitive Coding Workshop	JPMC Eligible Students	1 day	2017
37	TCS Remote Internship Program	T.E Students	1 day	2017
38	Women's Day Celebration	TCS Offered Students	1 day	2017
39	JPMC Competitive Coding Workshop	JPMC Eligible Students	1 day	2017
40	Women's Day Campus Engagement for 2017 batch	By TPO Neha Sinnarkar and Students	1 day	2017
41	Bitcoin & Blockchain Technology	T.E. students	1 day	2017
42	Best Software Project Awards(BSPA)	B.E. students	1 day	2017
43	Best Hardware Project Awards(BHPPA)	B.E. students	1 day	2017
44	Best Student Award(BSA)	B.E. students	1 day	2017
45	Reconnect Event	Majesco Offered Students	1 day	2017
46	Best Coder Award(BCA)	S.E,T.E & B.E Students	1 day	2017
47	Relevance of Experiential Learning in Higher Education of 21st Century(FDP)	Faculties and Students	1 day	2017
48	Contest Promotion	Students	1 day	2017
49	Winning women	T.E. students	1 day	2017
50	Pre-joining Formalities By TCS ILP Global	B.E. TCS	1 day	2017

	Head Curriculum Development Program	Offered Students		
51	TCS Remote Internship Program	T.E. students	1 day	2017
52	TCS Experiential Learning Program	TCS Placed students and T.E students	1 day	2017
53	TCS Remote Internship Program	T.E. students	1 day	2017

Parent-Teacher Meeting and counseling of students



Fig. 20. Parent-Teacher Meeting and student counseling programmes by Institute

Gender sensitization programs



Fig. 21. Self-defense workshop for women

Student participation and awards in sports and cultural events

TABLE XXVIII: National and state level student participation in sports activities

Sr. No.	Event (games / sports)	No. of participants	Level
1	Badminton	4	BITS PILANI BOSM 2016 (National Level)
2	Cricket	15	BITS PILANI BOSM 2016 (National Level)
3	Power Lifting	2	BITS PILANI BOSM 2016 (National Level)
4	Snooker	4	BITS PILANI BOSM 2016 (National Level)
5	Swimming	3	BITS PILANI BOSM 2016 (National Level)
6	Table Tennis	5	BITS PILANI BOSM 2016 (National Level)
7	Taekwondo	3	BITS PILANI BOSM 2016 (National Level)
8	Hockey	16	BITS PILANI BOSM 2016 (National Level)
9	Carom	4	BITS PILANI BOSM 2016 (National Level)
10	Football	16	BITS PILANI BOSM 2016 (National Level)
11	Badminton	4	MIT PUNE SUMMIT 2016 (State Level)
12	Cricket	15	MIT PUNE SUMMIT 2016 (State Level)
13	Football	16	MIT PUNE SUMMIT 2016 (State Level)

TABLE XXIX: National and state level student achievements in sports activities

Sr. No.	Event (sports)	No. of Students	Rank/Medal	Level (st/nat/int)
1	Carom	5	Gold Medal	BITS PILANI BOSM 2016 (National Level)
2	Hockey	16	Bronze Medal	BITS PILANI BOSM 2016 (National Level)
3	Football	16	Silver Medal	MIT PUNE SUMMIT 2016 (State Level)



Fig. 22. Student participation in sports

➤ **Student participation in cultural events:**

TABLE XXX: Department of electronics engineering at Mumbai University Youth Fest'16-17

Sr. No.	Name	Event
1	Aniket Kadam	One Act Play , Skit
2	Nikita Gaikwad	One Act Play
3	Surekha Gaikwad	One Act Play
4	Smruti Bandgar	Skit
5	Tanvi Gawde	Skit
6	Sayali Palkar	Skit
7	Aditya Neela	Indian Light Vocals, group song
8	Aniket Pawar	One Act Play, mime
9	Akshay Salunke	One Act Play
10	Mayur Mirashi	Mime
11	Priyam Chakraborty	Skit
12	Abhishek Gadkari	Skit, one act play
13	Rohan Bhanushali	One Act Play
14	PurvaAmbavane	One Act Play
15	VaradParanjpe	Mime

TABLE XXXI: Department of computer engineering at Mumbai University Youth Fest'16-17

Sr. No.	Name	Event
1	Meghana Potdar	Mono Act, one act play
2	Shreya Chandwadkar	One Act Play
3	Anurag Dahedar	Music
4	Suraj Korandla	Music
5	Chinmay Deosthali	Mime
6	Bhushan Patil	Skit, one act play
7	Prachi Suryavanshi	One Act Play
8	Ankita Bodele	One Act Play
9	Anurag Dahedar	One Act Play
10	Gauri Vengurlekar	One Act Play

TABLE XXXII: Department of electronics and telecommunication engineering at Mumbai University Youth Fest'16-17

Sr. No.	Name	Event
1	Gaurav Bhide	Music
2	SwapneshWalunj	Mono Act
3	KarunaHable	One Act Play
4	Chaitanya Mane	One Act Play
5	AbhishekParab	Mime
6	Rasik Thakur	Indian Light Vocals, instrumental
7	PallaviRedij	Mime
8	AchyutGawade	Skit, mime
9	ShakeelaBandrevu	Skit
10	EktaDhobley	Skit
11	Aishwarya Pathak	One Act Play
12	GauriKonnur	Indian Light Vocals
13	ShraddhaSonawale	One Act Play
14	Ronak	One Act Play
15	AmeyKarbhari	One Act Play
17	AniketRathod	One Act Play

TABLE XXXIII: Department of instrumentation engineering at Mumbai University Youth Fest'16-17

Sr. No.	Name	Event
1	Aditya Ayyer	Indian Light Vocals, mime
2	DhanashreeGadhikar	One Act Play
3	SiddheshPatil	Mime
4	ParagBadgeri	Mimicry
5	AbhayPatole	Mime
6	RavinaMukadam	One Act Play
7	PrathameshSawant	One Act Play
8	ShreyasWani	One Act Play
9	Prasad Phadake	One Act Play

TABLE XXXIV: Department of information technology at Mumbai University Youth Fest'16-17

Sr. No.	Name	Event
1	Namrata Bharath	Western group singing, Indian classical, group singing
2	Leena Nandrekar	Skit
3	Dheeraj Sandhanshi	One Act Play
4	Mrunalini Sonawle	Skit, one act play
5	Rushabh Bodas	Instrumental

TABLE XXXV: Cultural achievements by RAIT Footloose Team 2016-17

Sr. No.	College	Prize Won
1	Institute Of Chemical Technology, Matunga	1 st prize
2	Amity University, Mumbai	-
3	Ramrao Adik Institute Of Technology-Horizon	1 st prize
4	KJ Somaiya College of Engineering, Vidyavihar	-
5	Dr. D.Y.Patil College Of Biotechnology	1 st prize
6	Dr. D.Y.Patil College Of Law, (Velawcity)	1 st prize
7	Dr.DY Patil's Medical College (AURA)	2 nd prize
8	Atharva College of Engineering, Malad	-
9	Lokmanya Tilak College of Engineering, Koparkhairne	-
10	Vidyalankar Institute of Technology, Wadala	1 st prize
11	Saraswati College of Engineering, Kharghar	1 st prize
12	Terna College of Engineering, Nerul	2 nd prize
13	Fr. Conceicao Rodrigues College of Engineering, Vashi	1 st prize
14	Fr. Conceicao Rodrigues College of Engineering, Bandra	1 st prize
15	Thadomal Shahani Engineering College, Bandra	-
16	Grant Medical College, Mumbai CST	-
17	Lokmanya Tilak Municipal Medical College (LTMMC)	-
18	Rajiv Gandhi Medical College, Thane	2 nd prize
19	KC College Of Engineering, Thane	2 nd prize
20	SIES Graduate School of Technology, Nerul	1 st prize
21	Birla Institute of Technology And Sciences, Pilani – Hyderabad Campus	2 nd prize
22	KJ Somaiya (Institute of Management & Research), Vidyavihar	-
23	Usha Mittal Institute Of Technology (SNDT)-, Santacruz	-
24	Vasantdada Patil College of Engineering	1 st prize



Fig. 23. RAIT Footloose participation at various cultural events (AY 2016-17)

Best practices

The two best practices outlined in our SSR to NAAC mentioned two entries; Digital Initiative Program or DIP-RAIT and Quality Management Services or QMS-RAIT. These two initiatives had a fairly broad span in spirit and hence a long period of enforcement. Hence they continue in the present year 2016-17 with consolidation of activities and points covered last year and also addition of new activities this year. The goal of these best practices, Their Context and The Practice remains as envisaged and described I SSR- RAIT 2016 presented to NAAC.

Some additions have been done in both the Best Practices to further the cause of betterment and extend the scope. These are described below with benefits perceived from their use by all concerned.

The newly added activities in DIP-RAIT are:

- Library automation project along with the purchase of anti-plagiarism software.
- Implementation of a software project providing Vision-Mission mapping and attainment of the institute.
- Implementation of indirect attainment measurements in DCF through feedbacks.
- LMS android app has been introduced in 2016-17 to ease the access of the technology by faculty and students.
- Auto grader (Embedded system) gradeMe

These inclusions described above have resulted in greater satisfaction of stakeholders (primarily students) who have generously given good feedback describing the benefits they derived from use of above initiatives.

Similarly, for IQAC-RAIT the additions in 2016-17 are:

- Prerequisite test for all courses of all departments. This test is conducted in the beginning of the course and gives the instructor a good idea about the strengths and weaknesses of the students in regard to their prerequisites. The instructors or faculty members can thus tailor the course plan to accommodate this information.
- Inclusion of Direct and Indirect attainment of COs and POs of each course as outlined in the Digital Course File or DCF to signal the goodness of the results of teaching and learning of each course to the entire class. A good attainment signals a sound T&L and relatively lesser signals a need to revise the course delivery/content.
- Good acoustics in each class has helped even the back benchers to receive the oral messages without any strain. Also they said the concentration levels were better as distractions were less.
- Research biannual journal titled "Communications in Engineering & Technologies" was introduced for encouraging researchers and publications. The first edition is published and second edition is under preparation.

- Institute level “**Vishakha**” committee has been formed and a seminar was delivered by Advocate Mrs. Rajni Kunte on the topic ‘Awareness about Sexual Harassment’ on 28th Feb, 2017.
- New MOUs established with:
 1. Roy Eddington-Charles & Associates
 2. Yokogawa
 3. Barclays
 4. Internshaala
- RAMP (RAIT Alumni Mentorship program) has been re-launched with the release of a brochure. This initiative introduced avenues for alumni to help students through internships, workshops, training programs and scholarships.
- Continuous uninterrupted operations of biogas facility resulting in running of gas burners in hospital canteen. A saving on LPG to the tune of 3 to 4 gas cylinders per month is the outcome. The solar panel has generated an aggregate of 85 to 100 KWH per day during sunny days of 2016-17 which resulted in reduction of carbon footprint and a saving on power bill for 24300 units of electricity amounting to saving of 2.18 Lakhs.
- Evaluating outcomes of the training programs/workshops: The evaluation method consisted of conducting quiz for the participants and then analyzing their performance and finally coming out with the outcome based on objectives.
- National Digital Library has been promoted with students and faculties.

Renewable energy (biogas, solar) details



Fig. 24. Green (Biogas, Solar) energy at Institute