Departmental Information for Annual Report 2017-18

1. Name of Department: Electronics & Telecommunication Engineering

The department of Electronics and Telecommunication Engineering was established in the year 1995 initially with B. Tech. programme with intake of 60 students. In 2001, M. Tech programme in Electronics & Telecommunication Engineering with an intake of 18 students was introduced. From academic year 2008-2009, intake of B. Tech. has been increased to 120 students. The department has started Ph.D. programme from the academic year 2003, presently 19 research scholars are working in the research area of Signal Processing, Computer Network and Microwave Communication. Department is also offering fellowship to M. Tech and Ph.D. students under TEQIP project.

The curriculum designed is a perfect blend of Electronics, Communication and Computing Technologies. The focus of the department is to produce graduates & post graduates with strong fundamentals in Electronics and Communication domain.

The department has received handful amount of funding from AICTE, UGC, TEQIP and State Government for various research projects. The department has state of the art laboratories to cater for curricular requirements as well as projects and research.

The faculty members are having strong background of research in the current issues of the discipline. The budding graduates from this discipline have very good job opportunities in VLSI Technologies, Embedded Systems, Signal Processing, Radio Frequency (RF) Communication, Mobile communication and in Software Engineering. Many of our students placed in industries like Infosys, TCS, Cognizant, Persistent, Siemens, Huawei, Reliance Communication, Prayas Software Ltd, JSW ISPAT, RCF, Videocon, ONGC, BHEL, BEL, GE, L & T, Sasken,MBT, Texas, Accenture, Mahagenco, Motorola, CapGemini, Flextronicx, NVIDIA, Patney Computers, Reliance Jio, Hexaware, Tataelxsi, BSE, City bank, etc and got admitted for higher education (M. Tech / Ph. D programme) in institute of high repute such as IIMs, IITs and NITs.

Good number of students of this department competes in the competitive examinations like GATE, CAT, TOFEL, and GRE. Many students go abroad to perceive higher studies. As an essential part of the academic schedule, the students have to undergo industrial training at the end of second and third year during summer in industries of repute around us. To get an industrial exposure the department also arranges Industrial Visits to reputed industries in electronics, communication and computing area. There is an overwhelming participation of students in conferences, seminars, workshops, paper publications, annual sports. The department regularly organizes workshops, training, seminars, expert lectures and conference in the emerging areas of electronics and communication engineering.

2. Courses offered:

Sr. No.	Course	Intake	Year of Establishment
1.	UG(B. Tech)	120	1995
2.	PG(M. Tech)	18	2001
3.	Ph. D.	25 research scholars registered	2003

3. Student Statistical Information for the Academic Year 2017-2018

3.1 a) B. Tech. in E&TC (Four year duration after H.SC.)

Year (2017-2018)		UG			
		I	II	III	IV
Open	M	35	23	39	35
	F	10	21	09	18
	T	**45**	**44**	**48**	**53**
SC	M	17	10	19	18
	F	4	8	05	04
	T	**21**	**18**	**24**	**22**
ST	M	01	01	09	03
	F	01	00	03	02
	T	**02**	**01**	**12**	**05**
OBC	M	29	18	32	28
	F	12	19	20	22
	T	**39**	**37**	**52**	**50**
VJNT	M	08	10	10	10
	F	05	06	07	06
	T	**13**	**16**	**17**	**16**
SBC	M	01	06	02	03
	F	03	01	02	01
	T	**04**	**07**	**04**	**04**
J&K	M	**00**	**00**	**00**	**01**
	F	**00**	**00**	**01**	**00**
	T	**00**	**00**	**01**	**01**
Total	M	**89**	**73**	**98**	**95**
	F	**35**	**56**	**65**	**60**
	T	**124**	**129**	**163**	**155**

b) M. Tech in E&TC Engineering

Year(2017-2018)		PG	
		I	II
Open	M	0	5
	F	2	5
	T	**2**	**10**
SC	M	1	1
	F	3	0
	T	**4**	**1**
ST	M	0	0
	F	0	0
	T	**0**	**0**
OBC	M	02	03
	F	02	0
	T	**4**	**03**
VJNT	M	01	01
	F	01	00
	T	**02**	**01**
SBC	M	0	0
	F	0	0
	T	**0**	**0**
J&K	M	0	0
	F	0	0
	T	**0**	**0**
Total	M	5	10
	F	7	5
	T	**12**	**15**

c) **Ph.D. in E&TC Engineering (After M. Tech./M.E.)**

Sr. No	Year	Open			SC			OBC			SBC			Total		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1.	2017-2018	**08**	**01**	**07**	-	**01**	**01**	**01**	-	**01**	**0**	**0**	**0**	**09**	**02**	**11**
1.	**2016-2017**	02	02	**04**	02	00	**02**	-	-	-	1	0	1	**06**	**02**	**08**
2.	**2015-2016**	02	02	**04**	02	00	**02**	-	-	-	1	0	1	**06**	**02**	**08**
3.	**2014-2015**	02	01	**03**	02	-	**02**	01	-	**01**	-	-	-	05	01	**06**
4.	**2013-2014**	01	01	**02**	-	-	**-**	-	-	-	-	-	-	01	01	**02**
5.	**2012-2013**	01	-	**01**	01	-	**01**	-	-	-	-	-	-	02	-	**02**

d) **Details of the students results for 2017-2018**

Entry years	IInd Year	IIIrd Year	IVth Year
No. of students admitted	130	164	140
Appeared for the final year examination	130	164	140
Passed with Distinction	27	40	27
Passed with First Class	10	47	77
Passed with Second Class	00	08	24
Passed with Pass Class	00	--	01
Failed Students	93	69	09

3.2. **Department Faculty Members:**

Sr. No.	Faculty Name	Designation	Date of Joining	Academic Qualification	Specialization	Teaching Experience (Years)
1.	Dr. S. B. Deosarkar	Professor	01/01/1990	M.E., Ph. D	Microwave Engineering	28
2.	Dr. S.L. Nalbalwar	Associate Professor & Head	30/08/1996	M.E., Ph. D (IIT D)	Signal Matched Filter Bank	27
3.	Mr. S. V. Khobragade	Assistant Professor	25/08/1998	M.E. Ph. D. (Ongoing)	Microstrip Antenna	19
4.	Dr. A. B. Nandgaonkar	Assistant Professor	24/09/1998	M.E Ph. D	Microstrip Antenna	25
5.	Mr. N. S. Jadhav	Assistant Professor	31/07/2004	M. Tech (E & TC)	VLSI Design	14
6.	Dr. B. R. Iyer	Assistant Professor	06/08/2007	M.Tech MBA Ph.D. (IITR)	RF Comm.	12
7.	Mr. Kunal Kamble	Assistant Professor	03/07/2017	M.Tech. (E&TC)	Microcontroller	04
8.	Mr. Aniket Jangam	Assistant Professor	03/07/2017	M.Tech. (E&TC)	Microwave Comm .	04
9.	Mr. Sumeet V. Isai	Assistant Professor	03/07/2017	M.Tech. (E&TC)	Microwave Comm	02
10.	Mr. Ramesh V. Bandgar	Assistant Professor	03/07/2017	M.Tech. (E&TC)	Signal Processing	03
11.	Ms. Sampada Thorat	Assistant Professor	03/07/2017	M.E. (E&TC)	VLSI, embedded system	03

12.	Ms. Megha Kamble	Assistant Professor	03/07/2017	M.Tech (E&TC)	Signal Processing	05
13.	Ms. Swati Pawar	Assistant Professor	03/07/2017	M.E. (E&TC)	Signal Processing	02
14.	Mrs. Jyoti Kalgi	Assistant Professor	03/07/2017	M.E (E&TC)	Digital Electronics	05
15.	Mr. Roshan Bonde	Assistant Professor	03/07/2017	M.E. (E&TC)	Image Processing	05
16.	Mr. Sudhanshu Tayade	Assistant Professor	03/07/2017	M.E.(COMM.)	Communication	02
17.	Mr. Suraj Kulkarni	Assistant Professor	28/07/2017	M.E. (E&TC)	Signal Processing	1.5
18.	Mr. Swapnesh Shinde	Assistant Professor	03/07/2017	M.Tech. (E&TC)	Signal Processing	03

4.1 Members on Advisory Board of E & TC Department:

To providing time to time guidance and monitor the activities for the development of the department, Advisory Board for E & TC department is formed. Following accomplished members from reputed industry and academician from institute of repute are appointed by the Hon. Vice-Chancellor on this Board. The Advisory Council/Board is entrusted with responsibility of conducting academic audit of department, suggesting dynamic curriculum and providing input for research activities.

Sr. No.	Name	Designation
1	Lt. Cdr(Retd) Ravindra Kale	Sr. Program Manager, Tata Communication Ltd., Mumbai.
2	Dr. Munir Sayyad	General Manager and Head of Reliance JIO Quality Assurance Lab, Mumbai
3	Suresh Lok	Senior Vice-President Consulting Innovation and Evaluation for New Age Services at International Innovation, Incubation and Training Center, Navi Mumbai
4	Santosh B. Gadewar	DGM – SAP IT Business Solutions, Larsen & Toubro Limited, EAIC, Powai, Mumbai– 400 072
5	Dr. V.M. Gadre	Professor, Electrical Engineering, IIT Bombay
6	Dr. R.R. Manthalkar	Professor, Department of E & TC, SGGSIE & T Nanded, MS
7	Dr. S.G. Bhirud	Professor, E & TC VJTI Mumbai

4.2 BOS Meeting:

Each Department of University has its own Board of Studies (BoS). The main function of the BoS is to frame the curriculum and the contents of individual courses and to identify the electives to be offered. The BoS includes experts from industries, academia and research organizations. While framing the curriculum, the BoS takes into account the feedback from various stakeholders, needs of the industry, profession and society, needs of the research organizations, thrust areas of the country, etc.

During this academic year we have conducted 5 BOS meetings to discuss and finalize Course Structure and Course contents for various B. Tech and M. Tech programmes. Minutes of latest BOS meeting is attached in annexure C.

4.3 RC Meeting

The Research Committee represents the research interests and activities of Department. It aims to foster, design, and execute high quality multidisciplinary research in Department. Plan of action includes initiation, facilitation, integration, and support of research projects conducted by members, sections or research groups of Department. The Research Committee provides a mechanism for these research groups to interact within Department, with external collaborating individuals and groups. The Research Committee is the responsible body for managing this interaction. During the academic year we have conducted two RC meetings to see the current status of research in the department. Minutes of latest RC meeting is attached in annexure D.

5. List of major equipment and other facilities:

Department has state of the art research equipments and software in the area of Signal & Image Processing, Embedded Systems, Biomedical Electronics and Antenna & Microwave Engineering. These equipment include DSP starter kits, development boards, daughter cards to capture / process the images & video signals in real time mode, Spectrum analyzer, DSOs, RF signal Generator, Dual Channel arbitrary wave form function Generator, Microwave Communication Trainer, Synthesized Receiver, Fiber optics setup and various biomedical instruments, etc. The software related to above research areas include Cadence, IE3D, EMI Test, EM CAD, MATLAB, Proteus VSM, Quantic SI and Micro-wind.

Sr. No.	Name of Instrument	Qty	Total cost
1	Cadence EDA Tools	01	15,82,500
2	Compact Optical test Platform (OTDR) with SM 1310/1550 nm Make **JDSU MTS - 6000**	01	3,99,000
3	LAN Trainer with LAN Simulation Software Hardware **Scientech - 5002A**	01	2,47,500

4	MCS -03 microwave communication training system	01	2,08,620
5	UHF Antenna trainer & modeling system 50-860MHz	01	1,99,175
6	HP Compaq Tablet PC ,TC 1100,1.1GHz/512/60GB/26.4Cm,TFT/ CDR/RWW	01	1,20,034
7	Software :- IE3D for windows NT/95 power pack (MM 060)	01	3,60,000
8	Software :- FIDELITY for windows 95 TN (fD060)	01	3,30,000
9	Softwares :- MD SPICE for windows NT (SP 060)	01	1,65,000
10	EMI-Test Software	01	6,58,000
11	EM CAD Software	01	1,24,000
12	Proteus VSM software	01	4,51,000
13	Quantic SI (1 user license)	01	7,49,000
14	MICROWIND Package Includes DS CH3 (10 User)	01	5,50,000
15	Proteus PCB software (01 user)	01 user	1,56,000
16	R & S Make RF Signal Generator , 3 GHz. Model No:- SM – 300	01	4,21,500
17	R & S Make Dual Channel Arbitrary wave form function Generator, Model No:- AM – 300	01	4,28,125
18	Synthesized Receiver with RF Source	01	1,44,000
19	DSP development board with provision for daughter cards, DSP kits, various daughter cards, related software	01	10,00,000
20	AMITECH make 2.4 GHz Satellite Communication Lab with Spectrum Analyzer, Model: STC 24	01	2, 07,000
21	AMITECH make, Microwave Antenna Training system	01	2, 07,000
22	YOKOGOVA digital scope 500 MHz band width, 4 Channel, sample rate -5G Samples/sec	01	6, 86, 662
23	FPGA Lab Trainer, Custom Board Implementation of FPGA Design, Universal Development platform for FPGA	01	1396500
24	HFSS software	01	5,77,500
25	Embedded System	01	9,40,495
26	Simtel CD and Pen drive 5 user License	21 items	5,00,000

6. Conferences/Workshops/Trainings/Academic Awareness activities conducted:

Sr. No.	Name of the Course	Duration	Name of the Coordinators/ Speakers	Participants
1.	Session for E-Cell (Atal Incubation Centre)	July 21, 2017	Dr. S. L. Nalbalwar	B. Tech students
2.	Expert talk on Careers in Defense Services	July 29, 2017	Lieutenant Commander Ravindra Kale	B. Tech and M. Tech students
3.	Induction programme for First Year B. Tech	July 31-August 05, 2017	Dr. B. R. Iyer	All first year students
4.	Talk by Industry Expert on Corporate Training at BSNL	August 09, 2017	Dr. S. L. Nalbalwar	B. Tech students
5.	Guest Lecture by SEED InfoTech	Sept. 07, 2017	Neha Momin, Head, SEED InfoTech, Pune	B. Tech students
6.	Guest lecture on Fellowships and PBL	October 09, 2017	Dr. S. S. Inamdar, Director, CTIF, India and Managing Trustee /Secretary, Vishwaniketan Institute of Management Entrepreneurship and Engineering Technology	B. Tech and M. Tech students
7.	Expert talk on Wavelet Transform & Multirate DSP	November 06, 2017	Dr. M. S. Sutaone, COEP	Faculty and M. Tech students
8.	Expert talk on Embedded System Testing	November 06, 2017	Dheeraj Dhondalkar, EtaServe Software solutions Pvt. Limited, Bangalore	Faculty and M. Tech students
9.	Expert talk on Matlab in DSP	November 07, 2017	Dr. Hemprasad Y. Patil, Assistant Professor, R. H. Sapat College of Engineering, Nashik	Faculty and M. Tech students
10.	Field visit to Reliance Jio (for faculty)	November 11, 2017	Dr. S. L. Nalbalwar	Faculty and M. Tech students
11.	Expert talk on Auditory Signal Processing using Multi-resolution Approach	November 13, 2017	Dr. Abhijeet Karmarkar Senior Principal Scientist, CSIR-CEERI	Faculty and M. Tech students
12.	Expert talk on Under Water Signal Processing	November 14, 2017	Dr. Arnab Das, Director of Maritime Research Centre, Indian Maritime Foundation, Pune	Faculty and M. Tech students
13.	Expert talk on Signal Representation using Orthogonal Transform	November 15, 2017	Dr. R. S. Holambe, SGGSIE&T, Nanded	Faculty and M. Tech students
14.	Expert talk on Contextual	November 16,	Dr. Sanjeeva Kubakaddi, Founder of ITIE Knowledge Solutions,	Faculty and M. Tech

		2017	Bangalore	students
	Understanding of Biomedical Signal Processing			
15.	Expert talk on Recent development in Satellite Communication	December 27,2017	Dr. Rahul Waghmare, Scientist, ISRO, Banglore	Faculty and M. Tech students
16.	Expert talk on Product based Learning	December 27,2017	Mr. Kapil Kasetwar, Industry Expert	Faculty and M. Tech students
17.	Session for UCEL (Previously known as E-Cell) Guidance by Hon'ble Vice Chancellor	January 19, 2018	Prof. S. V. Khobragade	B. Tech students
18.	International Conference (ICCASP 2018)	January 26-27, 2018	Dr. B. R. Iyer	Participants from all over nation
19.	Role of ITU in Spectrum Management of Satellite and Terrestrial Services	January 26, 2018	Prof. Ashok Chandra Ministry of Comm.& IT, GOI	Participants from all over nation
20.	Integration of Cloud Computing & WSN in the perspective of IoT	January 26, 2018	Dr. S. C. Sharma IIT Roorkee	Participants from all over nation
21.	Convergence of Artificial Intelligence, Big Data, and High Performance Computing	January 27, 2018	Prof. V. C. Bhavsar University of New Brunswick, Canada	Participants from all over nation
22.	Multiband & Multi-Functional RF Integrated Circuits & Systems	January 27, 2018	Dr. N. P. Pathak RFIC Lab, IIT Roorkee	Participants from all over nation
23.	Alumni Meet	January 27, 2018	Prof. S. V. Khobragade	40 alumni, faculty, B. Tech and M. tech students
24.	Science Day Exhibition	February 28, 2018	Prof. S. V. Khobragade	30 school students

Expert talks by Alumni

Sr. No.	Name of the Topic	Name of Alumni	Participants
1.	Expert lecture on Civil Services	Nitish Pathode, Assistant Commissioner (Custom and Central Excise), Department of Revenue, Ministry of Finance, Government of India	B. Tech students

		All India Rank 723 in 2015 UPSC	
2.	Expectations of industry from fresh graduates	Paresh Mhamunkar, Engineer-Controls, Vanderlande Industries Software Pvt. Ltd	B. Tech students
3.	Need of higher studies, soft skills in corporate world	Nilesh Sarwate, CEO, IEIBS AKADEMIA, a MBA solutions organization	B. Tech students
4.	MATLAB in DSP	Dr. Hemprasad Patil, Assistant Professor, R.H. Sapat College of Engineering, Nashik	M.Tech students

Workshops attended by Faculties, Research scholars and PG students:

Sr. No.	Title	Date	No. of Participants
1.	AICTE-sponsored Two-week FDP on Recent Trends in Signal Representation: A Multirate Approach, DBATU	06/11/2017 – 17/11/2017	30
2.	RUSA sponsored FDP on Cyber Security, organized by Mumbai University	12/03/2018 – 22/03/2018	01
3.	TEQIP-III sponsored FDP on Data Science and R-Programming, COEP	18/12/2017 – 22/12/2017	02
4.	Higher Education Summit & HR organized by ELETS at Pune on 21st April, 2018	21st April, 2018	01

7. **Academic Awareness activities conducted**

1. **Induction program**: All India Council of Technical Education (AICTE) has asked all the institutes to greet every new student with an "Induction Programme" before they can embark on any study of science and engineering. Induction Programme for first year B. Tech students was organized by Department of Electronics and Tele-Communication Engineering. The programme was conducted from 02nd to 05th Aug, 2017. A strong focus was there on building confidence and boosting creativity through disciplines Physical activity, taking up some Creative arts, Literary activity encouraged in Indian languages, fostering greater human interaction and class bonding with small group discussions with faculty. Each day's program encompassed a mixture of different types of activities: talks, panel discussions, presentations; hands-on activities and group work. It was largely organized and managed by Telecommunication and Electronics Engineering Students Association (TEESA) and student volunteers. Most sessions were interactive – students were encouraged to express their views and participate actively.

2. **MoU with ITIE Knowledge Solutions, Bangalore has been signed on 15/11/2017.** This MoU helps to strengthen the scientific exchange & cooperation to be of mutual value. This would help the students and faculty to update the knowledge in their respective field of interest. The main objective is to promote academic and technical knowledge, projects and educational exchange between these two organizations through collaborative research, exchange of academic and technical staff, visit of student and research fellows.

3. **MoU for Entrepreneurship and Start-up Support with Millionminds Ecosystem, Mumbai** has been signed on 13/03/2018. Primary objective of this is to help students with a chance to penetrate into the Startup ecosystem from the beginning of their careers. Millionminds under the patronage of Startup India (A Govt. of India Initiative), launched The Startup League wherein students can send in their ideas, and meet the business incubators, Startup founders and possible investors to fuel their Startup dream. It is driven by the motive of inspiring students to be creative, begin their own business model and ultimately lead to job creation in the country, which further sketches an outline for collective development of the society we live in.

4. **MoU with Maritime Research Centre, Indian Maritime Foundation, Pune has been signed on 01/12/2017.** This MoU would help the students and faculty to update the knowledge in their respective field of interest. The main objective is to promote academic and technical knowledge, projects and educational exchange between these two organizations through collaborative research, exchange of academic and technical staff, visit of student and research fellows.

5. **MoU between NIELIT and DBATU:** Memorandum of Understanding (MoU) between National Institute of Electronics & Information Technology (NIELIT), an Autonomous Scientific Society under Ministry of Electronics & Information Technology, Government of India, and Dr. Babasaheb Ambedkar Technological University (DBATU), Lonere is signed on 15th June, 2018. The NIELIT has agreed to provide training programmes ranging from 6 weeks to 6 months duration to students of DBATU and its affiliated colleges. This MoU will provide us an opportunity to meet industrial requirement and also provides exposure to acquire the required state-of-the-art skills. It also helps in placing our students in industries. The NIELIT is also agreed to extend discount of 10% against the rates mentioned on the website of ministry of skill development NSQF guidelines.

6. **MoU between BIOTRONICS and DBATU:** Memorandum of Agreement (MOA) between BIOTRONICS EQUIPMENTS PVT LTD (BEPL), Thane-400602 and Dr. Babasaheb Ambedkar Technological University, Lonere has signed on 15th June 2018.. BEPL has agreed to sponsor two Ph.D students under research fellowship scheme. Certainly, this MoA will help to start joint research activity between industry and University in the area of Healthcare Technology. Department agreed to the terms and conditions mentioned in the MoA and recommended for signing of the said MoA.

7. AICTE-sponsored **Faculty Development Programme on Recent Trends in Signal Representation: A Multirate** Approach was organized from 06 November to 17 November 2017. FDP Co-coordinator was **Dr. S. L. Nalbalwar**. 50 participants from all over the nation participated in FDP

8. **Third International Conference on Computing, Communication and Signal Processing (ICCASP-2018)** is a flag ship conference, in the area of Electronics and Computer Communication, being organized by the Dr. Babasaheb Ambedkar Technological University during January 26th-27th, 2018 at Lonere, Raigad (MS), India. The aim was to bring together the academicians, scientists, engineers and research students in areas of engineering and technology, and to provide an international forum for the dissemination of original research, new ideas and practical developments experience. Like second conference, this conference had the focus on the frontier topics in the field of Computer, Electrical, and Electronics Engineering.

ICCASP-2018 was organized to address various issues to promote the creation of intelligent solution in future. The theme of this conference was to motivate the researchers to adopt the outcome for implementation. The conference provided an exceptional platform to the researchers to meet, discuss the practical solutions, scientific results and methods in solving intriguing problems with people who are actively involved in these emerging fields.

All accepted, registered and presented papers will be published in AISC Series of Springer (Visit), indexed in ISI Proceedings, El-Compendex, DBLP, SCOPUS, Google Scholar and SpringerLink.

Keynote speakers:

I. **Prof. Ashok Chandra**, Adviser to the Govt. of India (Former), Ministry of Communications and IT
   Topic: Role of ITU in Spectrum Management of Satellite and Terrestrial Services

II. **Dr. Virendrakumar C. Bhavsar**, Honorary Research Professor and Professor Emeritus, Faculty of Computer Science, University of New Brunswick, Fredericton, New Brunswick, Canada
   Topic: Convergence of Artificial Intelligence, Big Data, and High Performance Computing

Invited Talks:

I. **Dr. S. C. Sharma**, Professor, Indian Institute of Technology Roorkee
   Topic: Integration of Cloud Computing & WSN in the perspective of IoT

II. **Dr. N. P. Pathak**, RFIC Labs, Indian Institute of Technology Roorkee
   Topic: Multiband & Multi-Functional RF Integrated Circuits & Systems

Papers were invited in following tracks:

I. Signal Processing & Image Processing
II. RF & Microwave

III. Evolutionary Computing

IV. Ubiquitous Computing & Networking

V. Distributed Computing & Cloud Computing

VI. Software Engineering & Information Systems

VII. Green Computing & Internet Of Things

VIII. Hardware Design & Communication

The conference adopts Double Blind Review Process. Each paper was reviewed by minimum of 3 reviewers who were subject matter experts.

Total 103 papers were presented, out of which eight papers were presented through Skype Presentation.

9. **The Video Lectures prepared by IIT faculty** from NPTEL videos are regularly shown to the students for enhancing their understanding and performance in the core subjects of the course. Course content of the curriculum for most of the subjects are taken from NPTEL pool.

10. **GATE coaching:** Remotely situated institutes like ours must conduct practices beneficial to students during final year of graduation. Department conducts, throughout the year, the GATE coaching classes for all the students till their examination and these classes are included in their weekly time table as if they are the part their academic schedule. Every year almost all students of the final year B.Tech are appearing for the examination.

11. **Industrial Training and Industry Sponsored projects**: Each student undergoes an industrial training during summer vacation at the end of 2nd year B. Tech. for 2-weeks and 3rd year B. Tech. for 4 weeks. This training gives exposure to the students to latest industrial practices and modern technologies, develops interest of core subjects among students; which would in turn help them to identify research-oriented projects. About 30 UG students have completed their final year projects in BSNL and Reliance JIO.

12. **Technical Project related to Community Services:** Student undertake projects related to community services. Through such projects, they get exposure to real life problems of the community. This gives them an opportunity to seek solutions to such problems. By taking social responsibility in account, have included a task called COMMUNITY PROJECT in our curriculum, which has some Credits. For community projects this year we are allowing students to undertake the challenges posted on innovate.mygov.in portal for Smart India Hackathon'18.

Smart India Hackathon'18 is a portal for posting submissions for different challenges posted by government agencies and departments. The structure of problem is clearly mentioned on the website, So that one can have a brief look at challenge. To provide the solution of challenge you have to participate in the Hackathon. Format for the same is also available on the respective website.

13. **Open Book Examination:** Department started open book examination for some of the B.Tech / M.Tech courses. Purpose behind this is to improve conceptual understanding and thinking ability rather than memorizing ability. It is ideally suited to teaching programs that especially aim at developing the skills of critical and creative thinking. A more important reason for using open book examinations is that they have a tremendous impact on promoting the right mental sets in both learning and teaching.

14. **Cynosure 2018:** Cynosure'18 is the technical festival arranged by Dr. Babasaheb Ambedkar Technological University. Being the only State Technological University, Dr. BATU envision the visitors the taste of this year's theme "STARTUP FOR A BETTER TOMORROW". All the departments have put in their respective events to bring in all the emerging Engineers from all over India to experience the taste of our fest. EXTC department arranged four events in the technical fest as: Motustron, Battleship

15. **Alumni Meet:** An alumni meet was organized by department on 27 January 2018. 40 alumni from different batches attended the meet. They shared their experience as well as interesting moments of campus life to the audience. They also shared their expectations from Department and how they can contribute for the development of the department. An interaction session was organized with alumni so that current students get the proper guidance for the various opportunities after engineering, preparation for various exams like GATE, GRE, TOEFL, and research opportunities. Everyone agreed to increase their support for improving placement of department by encouraging more and more industries to visit campus for placements.

16. **Farewell:** Departmental farewell was organized by TEESA on 27th April 2018 for final year B. Tech Students. Graduating students shared their experience about University/ department/ faculty. Students also discussed the problems faced by them during their graduation so that the appropriate solution may be found for the betterment of their juniors.

8. Academic Achievements of faculty: (Awards received, lectures delivered, etc.)

1) **Dr. S. L. Nalbalwar**

- Appointed as TEQIP Mentor and Performance Auditor by NPIU for the following institutes

S.No.	Mentoring Assignment	Performance Auditing Assignment
1	Govt. Engineering College, Banswara	Institute of Engineering & Technology, Bundelkhand University, Kanpur Road, Jhansi, Uttar Pradesh
2	Birla Vishwakarma Mahavidyalaya, Vallabh Vidyanagar, Gujarat	NIT Kurukshetra

- Member of Board of Studies ADCET, Ashta, Sangali from 15/07/2016.
- Published book on Basic Electronics in 2017.
- Mentored team for SMART INDIA HACKATHON 2018

- NPIU appointed as Mentor/ Performance Auditor for monitoring TEQIP-III institute
- Member of Governing body for Orchid College of Engineering, Solapur
- He is also member on Prorgramme Committee of ICEGOV2017 (10th International Conference on Theory and Practice of Electronic Governance) by Ministry of Electronics & Information Technology, Government of India, India.

2) **Mr. S. V. Khobragade**

- appointed as District Licensing Officer of MHT CET 2018 for Raigad district for and successfully conducted the same

3) **Mr. Sumeet V. Isai**

- Mentored a team DBATU – Extrema for SMART INDIA HACKATHON 2017 at Guntur, Hyderabad

4) **Citation index of faculty members and impact factor**

Sr. No.	Name of the Faculty	Citation index	Impact factor
1	Dr. S. L. Nalbalwar	152 (for 77 papers) h-index:7	2.07 (for 39 papers)
2	Prof. S.V. Khobragade	14 (for 32 papers) h-index:2	1.67 (for 13 papers)
3	Dr. A.B. Nandgaonkar	--	2.28 (for 6 papers)

9. Major Students' Achievements:

A. Paper publication by the students: Students publish their research papers regularly in national/ international conferences and journals. About 20 papers have been published by the students in the current academic year. (Appendix-A)

C. List of students qualified the GATE 2018 Examination

Sr. No.	Name of Students	Marks (Out of 100)
1.	Manoj Kokane	41.67
2.	Hitesh Narkhede	34.33
3.	Ankush Chavan	33
4.	Akshay Biradar	29.33
5.	Sahil Thakare	28
6.	Ravindra Kashid	27.52
7.	Pooja Batawale	26.67
8.	Pranav Girwalkar	26.66
9.	Sandeep Bavkar	25.67
10.	Prasad Dutande	22.67

| 11. | Megha Kamble | 17 |

D. GRE: One student from final year B. Tech – Sai Datar scored 298 out of 340 in GRE

E. Co-curricular Activities:

University Sports

Throw ball	Shubham Chincholkar	Gold
	Nagnath Phopse	
	Sanket Birajdar	
	Akshay Bhusare	
	Akshay Chavan	
	Mangesh deshmukh	
	Sandeep Satpute	
	Mandar Kulkarni	
	Pratik Ambhore	
	Akshay Jadhav	
	Ashish Bhusari	
	Shreenath Khandalade	
Football	Nidaan Gaddpawar	Gold
	Shubham Kendre	
	Pruthviraj Walse	
	Madhav Lalit	
	Akshay More	
	Parth Akre	
	Akshay Vaidya	
	Shantanu Kurapati	
	Swayam Dhondge	
	Roshan Waghmare	
	Prajwal Nandeshwar	
	Ashish Junghare	
	Abhilash Bhandekar	
	Rahul Misal	
	Anket Gajbhiye	
	Swarup Nachankar	

Basketball	Akshay Chavan	Gold
	Nagnath Phopse	
	Pratik Ambhore	
	Akshay Bhusare	
	Shubham Chincholkar	
	Amit Narote	
	Utkarsh Kore	
	Mangesh Deshmukh	
	Sangam Potkule	
	Sanket Birajdar	
	Mandar Kulkarni	
	Akshay Jadhav	
Handball	Nagnath Phopse	Gold
	Sandeep Satpute	
	Ashish Bhusari	
	Akshay Vaidya	
	Roshan Waghmare	
	Amit Narote	
	Pratik Ambhore	
	Shailesh Fajge	
	Akshay Bhusare	
	Shreenath Khandalade	
	Karan Kadam	
	Mayur Rangari	
Carom	Pratik Ambhore	Silver
	Chetan Zade	
	Akshay Chavan	
	Akshay Jadhav	
Futsal	Nidaan Gaddpawar	Silver
	Aksahy Vaidya	
	Swayam Dhondge	
	Roshan Waghmare	
	Parth Akre	
	Akshay More	

	Prithviraj Walse	
	Madhav Lalit	
	Shubham Kendre	
!00*4 Relay	Chetan Mhatre	Gold
	Madhav Lalit	
	Omkar Ghosalkar	
Kabbadi	Adinath Govilkar	Gold
	Ashish Bhusari	
	Pradip Gadekar	
	Utkarsh Kore	
	Akshay More	
	Parth Akre	
	Omkar Ghosalkar	
	Rahul Misal	
Chess	Shankar Salunke	Gold

AbhiyantaVasant 2017

One-Act	Vijay Jamdar & Group	Gold
Best Director (One-Act)	Vijay Jamdar	
Elocution English	Uma Gauda	Gold
Hindi Debate	Sourabh singh & Neeraj shukla	Silver
Marathi Debate	Vijay Jamdar & Pralhad Pawar	Gold
Solo Singing	Aniket Shingade	Gold
Dance: Solo, Dute, & Group	Shubhangi Nirbhavane	Gold
Fine Arts Rangoli	Rukmini Salwe & Gauri phutane	Gold

Appendix-A

List of Publications

International Conference:

1. Mohini N. Sheth, Dr. Sanjay L. Nalbalwar, Dr. Anil B. Nandgaonkar, "Identification of snake type from image", International conference on Electrical & Electronics Engineering(ICEEE 2018), 22 April 2018, Pune

2. Shrutika Ghosalkar, Dr. Sanjay L. Nalbalwar, Dr. N. S. Jadhav, "Smart Helmet: for driver safety", International conference on Electrical & Electronics Engineering(ICEEE 2018), 10th June 2018, Pune.

3. Yuvraj V. Parkale, Sanjay L. Nalbalwar (2018), "Investigation on Daubechies Wavelet Based Compressed Sensing Matrices for ECG Compression, **Paper Accepted** in Springer-Advances in Intelligent Systems and Computing (Springer-AISC) (Proceedings published by Springer)

4. Pratima Nirmal, Dr. A.B. Nandgaonkar and Dr. S.L. Nalbalwar, "A compact slited MIMO antenna with high isolation for WLAN application", 2017 International Conference on Circuit ,Power and Computing Technologies (ICCPCT), April 2017, https://scholar.google.com/scholar?oi=bibs&cluster=14710834716748941644&btnI=1&hl=en

5. S.V. Khobragade, S.L. Nalbalwar and A.B. Nandgaonkar, "A 3-D symmetrical Fractal Tree Antenna using Chemical Decomposition Technique", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

6. Ashvini Pudke, S.L. Nalbalwar, "LabVIEW based coal mine monitoring and alert system with data acquisition", International Conference Intelligent Computing and Control System 2017, June 2017, https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp? punumber=8241057

7. Bhide, A.B. Nandgaonkar and S.L. Nalbalwar, "Dual frequency high gain union shaped Microstrip Patch Antenna ", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

8. A. Kotade, A.B. Nandgaonkar and S.L. Nalbalwar, "Cyclic Redundancy Check: Novel Approach for low computational complexity and analysis ", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

9. Y. Parkale, and S.L. Nalbalwar, "Investigation on 1-D and 2-D Signal Sparsity using the gini index, L-1-Norm and L2-Norm for the best Sparsity Basis selection", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

10. S. Kulkarni, D.S. Bormane and S.L. Nalbalwar, "Stabilization of Jittery Videos usin Feature Point Matching Technique", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

11. P. Wagh and S.L. Nalbalwar, "A Review on Automated Safety System", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

12. M. Bhagat and S.L. Nalbalwar, "Wireless Transfer of Solar Power for charging Mobile Devices in a Vehicle", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

13. N. Joshi, K. Shet and S.L. Nalbalwar, "Fall detection for elderly people: A Review", Published in International Conference on Communication and Signal Processing held at Dr. BATU Lonere during, Dec 26-27, 2017

International Journal Publications:

1. Pallavi Ingale and Dr. S.L. Nalbalwar,"Singing voice separation using mono-channel mask", International Journal of Speech Technology, Springer US, pp. 1-18, 2018

2. S.M.Kulkarni, D.S.Bormane and S.L.Nalbalwar, "Video Stabilization Using Feature Point Matching", IOP Journal of Physics: 787 (2017) 012017 doi:10.1088/1742-6596/787/1/012017 indexed by Ei Compendex, SCOPUS, Inspec, Conference Proceedings Citation Index – Science (CPCI-S)(Thomson Reuters, Web of Science), NASA Astrophysics Data System, and other databases.

3. Pratima C. Nirmal, Anil Nandgaonkar, Sanjay Nalbalwar and Rajiv K. Gupta, "Compact MIMO Antenna with Improved Isolation for 3G, 4G, Wi-Fi, Bluetooth and UWB Applications" , Progress in Electromagnetics Research C, Vol. 76, 87–98, 2017

4. M.P. Bhagat and Dr. S. L. Nalbalwar, "Wireless Power Transfer to charge mobile devices in automobile vehicles by using solar energy", IJEMR, Vol-7, issue-2, March-April, 2017.

5. Ketaki Shet, Sanjay Khobragade, 'Real time abandoned object detection and addressing using IoT' IJCER, Volume – 07, May 2017

6. Rohit D. Gawade and S. L. Nalbalwar, "Mean Territorial Energy Based Clustering Protocol for Randomly Deployed Wireless Sensor Networks" Advances in Internet of Things, 2017, 7, 87-96, https://doi.org/10.4236/ait.2017.73006

7. Pallavi Ingale and Dr. S.L. Nalbalwar,"Detection of Speaker identities from co-channel speech signal," WSEAS Transactions on Signal Processing, ISSN/E-ISSN 1790-5052/2224-3488, Volume 14, 2018, Art. 66, pp 43-49

8. Pavan Paikrao and Dr. S.L. Nalbalwar, "Analysis Modification synthesis based Optimized Modulation Spectral Subtraction for speech, enhancement" International Journal of Circuits, Systems and Signal Processing ISSN: 1998-4464, Vol. 11, 2017pp. 343-352

9. S.V. Khobragade, Dr. S.L. Nalbalwar, Dr. A.B. Nandgaonkar "Fusion Execution of NaCl on Tree-Shaped MSA," International Journal of Antennas and Propagation Volume 2018, Article ID 4965627, pp 1-6, https://doi.org/10.1155/2018/4965627

10. Pratima C. Nirmal, Anil Nandgaonkar and Sanjay Nalbalwar "Mutual Coupling reduction between H Shaped Compact MIMO Antenna for WLAN Application" , International Journal of Wireless and Microwave Technologies, Vol 7, pp.46-57, Nov. 2017

Appendix-B

List of Research Scholars Registered:

Following candidates presented their annual progress seminars before the RC. RC assessed and evaluated their presentations and remarks given by RC are as follows:

Sr. No.	Name of the Candidate	Registration Number & Date	Broad area of research	Remark
1	Pavan Paikrao	RS 20120303 24/09/2012	Developing Optimized Signal Processing Techniques for Improving the perception of Hearing Impaired	Recommended for Pre-synopsis.
2	Pallavi Ingale	RS 20130301 13/08/2013	An Information Extraction Approach to Acoustic Signal Processing: Analysis, Segregation and Detection	
3	Bhide Girish Govind	RS20140301 20/8/2014	Analysis, Simulation and Design of MSA using suitable Computational EM Method	
4	Khobragade Sanjay Vivekanand	RS20140302 21/8/2014	Some studies on Fractal Tree MSA for Multiband Application	
5	Kotade Amol Bhaskar	RS20140303 19/8/2014	Analysis of PAPR reduction in OFDM based system and system performance improvement	
6	Nirmal Pratima Chabbilal	RS20140304 20/8/2014	Minimizing Mutual Coupling in MIMO Antenna	Recommended for Pre-Synopsis.
7	Shinde Ashok Naganath	RS20140306 21/8/2014	Compressed Sensing for Bio-signals	
8	Bavkar Sandeep Sarjerao	RS20150301 10/09/2015	Human Brain Distinctiveness Analysis based on EEG	
9	Jagtap Sagar Satyawan	RS20150302 10/09/2015	Some Studies on Smart Antenna for future Wireless Communication	
10	Oak Pratik Vinayak	RS20150307 09/09/2015	Analysis and Detection of Cervix Cancer: An Image Processing Approach	
11	Kadge Sushma Shankar	RS20150303 11/09/2015	Analysis and Classification of Retinal Images	
12	Munde Mahesh Madanrao	RS20150306 09/09/2015	Impact Analysis of effects of RF on Human Health	
13	Khadase Rahul Babarao	RS20150304 10/09/2015	Design of Implantable Antenna as a Sensor for Continuous Glucose Monitoring System	
14	Uday Prakash Mithapelli	RS20150305 11/09/2015	Analysis and Classification under water signals	

Newly admitted students in Jan 2018

Sr. No.	Name of the Candidate	Supervisor(s)	RPC Members
1	Patil Suraj Gopal	Dr. S.B. Deosarkar Dr. S.L. Nalbalwar	1. Dr. A.B. Nandgaonkar 2. Dr. A.W. Kiwelekar
2	Mukund Narayan Kulkarni	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1. Dr. S.B. Deosarkar 2. Dr. P.K. Katti
3	Jagdale Shantanu Shirish	Dr. S.B. Deosarkar Dr. S.L. Nalbalwar	1. Dr. B.R. Iyer 2. Dr. A.W. Kiwelekar
4	Bodke Bhagvan Shankar	Dr. A.B. Nandgaonkar Dr. S.B. Deosarkar	1. Dr. S.L. Nalbalwar 2. Dr. S.M. Jadhav
5	Shraddha Dhengre	Dr. A.B. Nandgaonkar Dr. B.R. Iyer	1. Dr. S.B. Deosarkar 2. Dr. S.M. Jadhav
6	Bakale Ravindra Subhash	Dr. A.B. Nandgaonkar Dr. B.R. Iyer	1. Dr. S.B. Deosarkar 2. Dr. S.M. Jadhav
7	Kamthekar Swati Shashikant	Dr. B.R. Iyer	1. Dr. A.B. Nandgaonkar 2. Dr. A.W. Kiwelekar
8	Rajput Jasawant Laxmansing	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1. Dr. Brijesh Iyer 2. Dr. A.W. Kiwelekar
9	Puri Digambar Vitthalbuwa	Dr. S.L. Nalbalwar Dr. A.B. Nandgaonkar	1. Dr. Brijesh Iyer 2. Dr. A.W. Kiwelekar
10	Khare Harshukumar	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1. Dr. Brijesh Iyer 2. Dr. A.W. Kiwelekar
11	Deepak Suresh Jain	Dr. B.R. Iyer	1. Dr. A.B. Nandgaonkar 2. Dr. A.W. Kiwelekar

<u>Minutes of the Meeting of BoS in E & TC</u>

BoS meeting of E & TC Engineering was held during on 5th May, 2018 in the department of E & TC Engineering at 10.30 am.

<u>Agenda for the meeting was as follows:</u>

1. Recommendation of Course Structure and Course Curriculum for following UG Programmes

Sr. No.	UG Programme (B.Tech)
1	**Electronics & Telecommunication**
2	**Electronics Engineering**
3	**Biomedical Engineering**

2. Recommendation of PEOs, POs, Course Objectives, Course Outcomes and their mapping

3. Mapping of recommended curriculum with NPTEL, SWAYAM and MOOC courses

4. Recommendation of minor corrections in course contents and addition of Elective courses in the M.Tech programmes

5. Any other point with permission chair

<u>Following Members were present for the meeting:</u>

1. Dr. S.L. Nalbalwar, Head Dept. of E&TC and Chairman, Board of Studies
2. Dr. S.B. Deosarkar, Professor of E & TC
3. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
4. Dr. Munir Sayyad, Asst.Vice-President, Reliance Jio, Mumbai.
5. *Dr. Ulhas* B. *Shinde,* Principal, CSMSS CHH Shahu College of Engineering Aurangabad
6. Dr. R.M. Autee, Deogiri Institute of Engineering & Management Studies, Aurangabad

Following members could not attend the meeting; however they have given concurrence for the said changes in the syllabus over telephonic conversation:

1. Dr. D.S. Bormane, Principal, CoE, AISSM, Pune
2. Dr. R.N. Awale , VJTI Mumbai
3. Dr Ulhas Shiurkar, Director, Deogiri Institute of Engineering & Management Studies, Aurangabad

1. Recommendation of Course Structure and Course Curriculum for following UG Programmes

Sr. No.	UG Programme (B.Tech)	Remark
1	Electronics & Telecommunication	BoS recommended Course Structure and Course Contents from 3rd semester-8th Semester. Also recommended the same course contents for Basic Electronics.
2	Electronics Engineering	BoS recommended Course Structure and Course Contents from 3rd semester-8th Semester. Also recommended the same course contents for Basic Electronics.
3	Biomedical Engineering	BoS recommended no change in the Course Structure and Course Contents for the Biomedical Engineering Programme.

Curriculum for the above mentioned UG programmes from 3rd semester to 8th semester have been thoroughly discussed and decided in the meeting. While deciding the courses of these semesters, syllabi of Pune University, Mumbai University, IITs, UGC guidelines, AICTE model curriculum & guidelines as well as recent development in technology & requirement of industries are taken into account. Finally course structure and course content up-to final year are prepared and recommended by the BoS in this meeting.

2. Recommendation of PEOs, POs, Course Objectives, Course Outcomes and their mapping

BoS recommended continuing with the same PEOs, POs, Course Objectives and Course Outcomes. Also it was recommended that, the Course Objectives and Course Outcomes for the additional courses.

3. Mapping of recommended curriculum with NPTEL, SWAYAM and MOOC courses

Recommended the mapping of proposed courses with online courses available with above platform

4. Recommendation of minor corrections in course contents of following courses and addition of Elective courses in the M.Tech programmes

Two additional Elective courses viz.

    a. Recent Trends and Technologies

    b. Radio Spectrum Management

are recommended by BoS as **Elective-I and Elective –IV** and being added in the first and second semester of all PG programmes.

Also curriculums all PG streams of Electronics from 1st semester to 4th semester have been thoroughly revisited and minor corrections in the course contents have been recommended by BoS.

Sr. No.	Course Name	Course Code in EXTC	Remark
1	Signal Theory	MTETC101	Minor corrections in the course contents. All these changes in the respective courses will be applicable to all respective M.Tech programmes under BoS in E & TC.
2	Signal Processing Algorithms & Applications	MTETC103	
3	Estimation and Detection Theory	MTETC201	
4	Information Theory & Coding	MTETC202	
5	Multirate Digital Signal Processing	MTETE233	
6	IOT	MTETE255	

It is also recommended that student has to choose Project Management and Intellectual Property Rights course either from NPTEL/MOOC/SWAYAM pool and submission of course completion certificate is mandatory. If single course is not available, students have to submit the certificate of **Project Management** and **Intellectual Property Rights** separately.

5. **Any other point**

   a) **Recommendation for online courses**

Discussion on mapping of proposed courses with courses from NPTEL/MOOC/SWAYAM/edx pool is carried out. It is observed that, most of the courses are mapped with proposed courses. BoS recommended for online registration of available courses by students from any of the above platform in place of courses proposed in the curriculum. Grades of these online courses will be taken as it is, if certificate is submitted by the candidates.

   b) Powers have been delegated to the Chairman for making the normal changes if needed that is, addition of electives, shifting of courses, addition of courses, course contents etc.

   1. Dr. S.L. Nalbalwar, Head Deptt. of E&TC and Chairman, Board of Studies
   2. Dr. S.B. Deosarkar, Professor of E & TC
   3. Dr. A.B. Nandgaonkar, Associate Professor of E & TC
   4. Dr. Munir Sayyad, Asst. Vice-President, Reliance Jio, Mumbai.
   5. *Dr. Ulhas B. Shinde,* Principal, CSMSS CHH Shahu College of Engineering Aurangabad
   6. Dr. R.M. Autee, Deogiri Institute of Engineering & Management Studies, Aurangabad

Appendix-D

Minutes of the Meeting of RC in Electronics and Telecommunication Engineering

Meeting of RC in Electronics and Telecommunication Engineering was held in EDUSAT room on 19th Jan 2018.

Agenda for the meeting was as follows:

    A.   Annual Progress Seminars
    B.   To discuss replies received from Ms. V.V. Ingale (Research Scholar) to the queries of external examiners
    C.   To take review of Bi-annual progress reports submitted in June 2017 and Dec 2017
    D.   Allocation of coursework and supervisors to newly admitted students in Jan 2018
    E.   Permission for Pre-Synopsis Presentation:
    F.   Formation of Research Progress Committee (RPC)
    G.   Any other point

Following Research Committee members were present for the meeting:

1. Dr. S. L. Nalbalwar
2. Dr. S.B. Deosarkar
3. Dr. R.S. Holambe
4. Dr. Y.V. Joshi
5. Dr. R.N. Awale
6. Dr. A. B. Nandgaonkar
7. Dr. Brijesh Iyer

Following points were discussed and finalized in the meeting:

A] Annual Progress Seminar presentation and Evaluation

Following candidates presented their annual progress seminars before the RC. RC assessed and evaluated their presentations and remarks given by RC are as follows:

Sr. No.	Name of the Candidate	Registration Number & Date	Broad area of research	Remark
1	Pavan Paikrao	RS 20120303 24/09/2012	Developing Optimized Signal Processing Techniques for Improving the perception of Hearing Impaired	Recommended for Pre-synopsis.
2	Pallavi Ingale	RS 20130301 13/08/2013	An Information Extraction Approach to Acoustic Signal Processing: Analysis, Segregation and Detection	
3	Bhide Girish Govind	RS20140301 20/8/2014	Analysis, Simulation and Design of MSA using suitable Computational EM Method	
4	Khobragade Sanjay Vivekanand	RS20140302 21/8/2014	Some studies on Fractal Tree MSA for Multiband Application	
5	Kotade Amol Bhaskar	RS20140303 19/8/2014	Analysis of PAPR reduction in OFDM based system and system	

			performance improvement	
6	Nirmal Pratima Chabbilal	RS20140304 20/8/2014	Minimizing Mutual Coupling in MIMO Antenna	Recommended for Pre-Synopsis.
7	Shinde Ashok Naganath	RS20140306 21/8/2014	Compressed Sensing for Bio-signals	
8	Bavkar Sandeep Sarjerao	RS20150301 10/09/2015	Human Brain Distinctiveness Analysis based on EEG	
9	Jagtap Sagar Satyawan	RS20150302 10/09/2015	Some Studies on Smart Antenna for future Wireless Communication	
10	Oak Pratik Vinayak	RS20150307 09/09/2015	Analysis and Detection of Cervix Cancer: An Image Processing Approach	
11	Kadge Sushma Shankar	RS20150303 11/09/2015	Analysis and Classification of Retinal Images	
12	Munde Mahesh Madanrao	RS20150306 09/09/2015	Impact Analysis of effects of RF on Human Health	
13	Khadase Rahul Babarao	RS20150304 10/09/2015	Design of Implantable Antenna as a Sensor for Continuous Glucose Monitoring System	
14	Uday Prakash Mithapelli	RS20150305 11/09/2015	Analysis and Classification under water signals	

B] To discuss replies received from Ms. V.V. Ingale (Research Scholar) to the queries of external examiners

External examiners have evaluated the thesis submitted by Ms. V.V. Ingale. One of the external examiners has recommended thesis for defense and suggested to modify the title of the thesis, which is not mandatory. Second external examiner has raised some queries accordingly she has addressed the queries. RC approved the responses to queries submitted by her and recommended for final defense examination.

C] Approval of Biannual Reports:

Biannual progress reports of above research scholars in the department, stated in [A], were placed before RC for monitoring the progress of the candidates. RC found their work satisfactory and all these progress reports were approved by committee.

D] Allotment of supervisor and Course work to newly admitted students in Jan 2018

RC allotted the course work to the newly admitted students, given in the table below. As far as Seminar topic is concerned, it is decided that candidates should select their seminar topic related to the area of research. RC also, approved the research supervisor(s) allotted to the newly admitted students.

Sr. No.	Name of the Candidate	Supervisor(s)	Course work allotted
1	Patil Suraj Gopal	Dr. S.B. Deosarkar Dr. S.L. Nalbalwar	1. Research Methodology 2. Internet of Things 3. Seminar
2	Mukund Narayan Kulkarni	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1. Research Methodology 2. Internet of Things 3. Seminar

Sr. No.	Name of the Candidate	Supervisor(s)	Course work allotted
3	Jagdale Shantanu Shirish	Dr. S.B. Deosarkar Dr. S.L. Nalbalwar	1. Research Methodology 2. Internet of Things 3. Seminar
4	Bodke Bhagvan Shankar	Dr. A.B. Nandgaonkar Dr. S.B. Deosarkar	1. Research Methodology 2. Information Theory and Coding 3. Seminar
5	Shraddha Dhengre	Dr. A.B. Nandgaonkar Dr. B.R. Iyer	1. Research Methodology 2. Internet of Things 3. Seminar
6	Bakale Ravindra Subhash	Dr. A.B. Nandgaonkar Dr. B.R. Iyer	1. Research Methodology 2. Information Theory and Coding 3. Seminar
7	Kamthekar Swati Shashikant	Dr. B.R. Iyer	1. Research Methodology 2. Internet of Things 3. Seminar
Sr. No.	**Name of the Candidate**	**Supervisor(s)**	**Course work allotted**
8	Rajput Jasawant Laxmansing	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1.Research Methodology 2. Multirate DSP 3. Seminar
9	Puri Digambar Vitthalbuwa	Dr. S.L. Nalbalwar Dr. A.B. Nandgaonkar	1. Research Methodology 2. Multirate DSP 3. Seminar
10	Khare Harshukumar	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1. Research Methodology 2. Information Theory and Coding 3. Seminar
11	Deepak Suresh Jain	Dr. B.R. Iyer	1. Research Methodology 2. Internet of Things 3. Seminar

E] Permission for Pre-Synopsis Presentation:

1. Ms. Pratima Nirmal has completed substantial work on her Ph.D. topic and published research papers in International Journal and conferences. The RC unanimously recommended her case for pre-synopsis presentation in the next meeting of RC.

2. Mr. Pavan D. Paikrao has completed substantial work on his Ph.D. topic and published research papers in International Journal and conference. The RC unanimously recommended his case for pre-synopsis presentation in the next meeting of RC.

F] Formation of Research Progress Committee (RPC)

As per Ph.D. rules of the University, concerned guide of Ph. D. candidate will form a Research Progress Committee for every student consisting of him/herself, one more faculty member from the same Department who is PhD guide and one faculty member from other Department, from the University in the case of University Department or from the same College. Role of the RPC is to monitor, regularly, progress of the research candidates. RC approved all the RPC as shown in the below table.

Sr. No.	Name of the Candidate	Supervisor(s)	RPC Members
1	Patil Suraj Gopal	Dr. S.B. Deosarkar Dr. S.L. Nalbalwar	3. Dr. A.B. Nandgaonkar 4. Dr. A.W. Kiwalekar
2	Mukund Narayan Kulkarni	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	3. Dr. S.B. Deosarkar 4. Dr. P.K. Katti
3	Jagdale Shantanu Shirish	Dr. S.B. Deosarkar Dr. S.L. Nalbalwar	3. Dr. B.R. Iyer 4. Dr. A.W. Kiwalekar
4	Bodke Bhagvan Shankar	Dr. A.B. Nandgaonkar Dr. S.B. Deosarkar	3. Dr. S.L. Nalbalwar 4. Dr. S.M. Jadhav
5	Shraddha Dhengre	Dr. A.B. Nandgaonkar Dr. B.R. Iyer	1. Dr. S.B. Deosarkar 2. Dr. S.M. Jadhav
6	Bakale Ravindra Subhash	Dr. A.B. Nandgaonkar Dr. B.R. Iyer	3. Dr. S.B. Deosarkar 4. Dr. S.M. Jadhav
7	Kamthekar Swati Shashikant	Dr. B.R. Iyer	1. Dr. A.B. Nandgaonkar 2. Dr. A.W. Kiwalekar
8	Rajput Jasawant Laxmansing	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	1. Dr. Brijesh Iyer 2. Dr. A.W. Kiwalekar
9	Puri Digambar Vitthalbuwa	Dr. S.L. Nalbalwar Dr. A.B. Nandgaonkar	1. Dr. Brijesh Iyer 2. Dr. A.W. Kiwalekar
10	Khare Harshukumar	Dr. A.B. Nandgaonkar Dr. S.L. Nalbalwar	3. Dr. Brijesh Iyer 4. Dr. A.W. Kiwalekar
11	Deepak Suresh Jain	Dr. B.R. Iyer	1. Dr. A.B. Nandgaonkar 2. Dr. A.W. Kiwalekar

Appendix-E