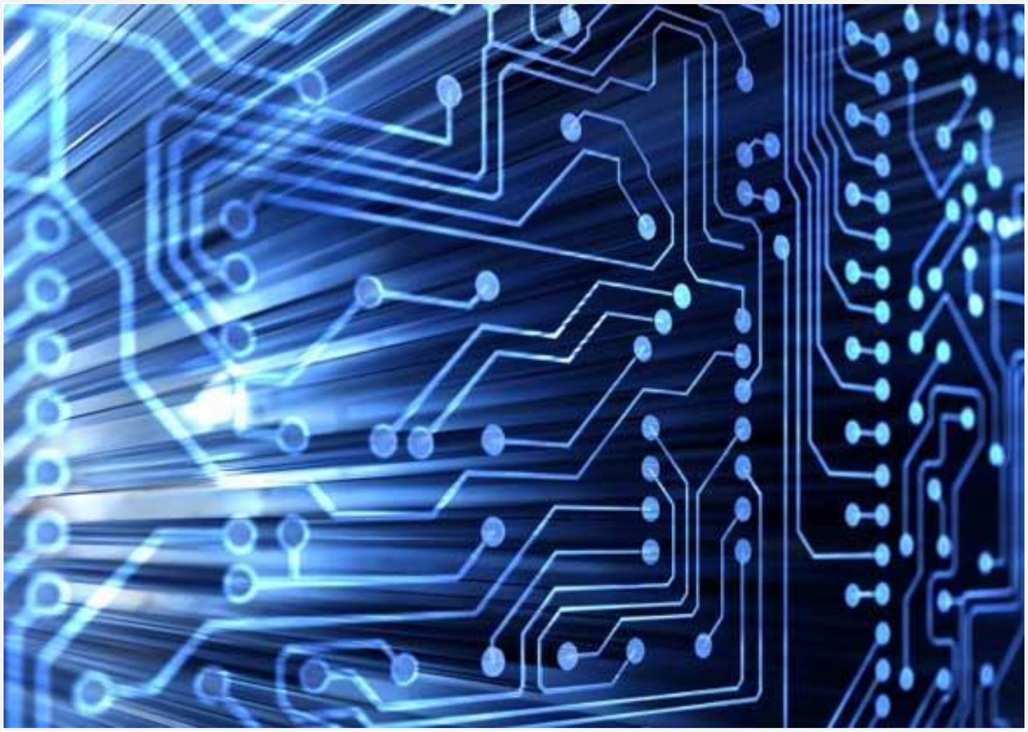

Electronics Insight
May 2017

DEPARTMENT OF ELECTRONICS ENGINEERING

About

Electronics Engineering Department, since its inception in 1995, has achieved great recognition in the field of technical education. The department offer B.E. in Electronics Engineering, a four-year degree program with an intake of 60 students. The National Board of Accreditation accredited the department in 2004 and for two years in 2013. This year department applied for reaccreditation to NBA. Department adopted the philosophy of 'Outcome Based Education.' It comprises highly qualified and professionally skilled faculty members with an impressive record of the published work. Department faculties are rigorously involved in R&D activities. Their research work is published in reputed international journals like IEEE, IET, AIP, ASP, Elsevier, Wiley, IETE etc. and also in international conferences. The faculty members conduct training programs in the various areas of engineering such as embedded systems, VLSI and networking.

Department has made conscious and concerted efforts to develop the department as a centre of excellence. The Department has an exclusive library with 1000+ books and access to services like NPTEL. The Laboratories are equipped with standard equipments& accessories from best manufacturers and industry grade tools like LabView, Coventorware, COMSOL, PSIM, Mentor Graphics, Tanner Tools, Xilinx, Active HDL, KEIL Professional Licenses, DSP Application software etc. Some of the laboratories have advanced hardware and demonstration setups like NI-ELVIS, PLC's, SCADA, Smart Camera, Mechatronics Toolkit, Biomedical Instrumentation Toolkit, Robot Models, Trainers, Microcontroller/ FPGA/CPLD prototype boards etc. The department has signed MoU with several companies like TCS, Infosys, Eduvance, Wiksate, Starcom, Edgate technologies etc. and reputed institutes like IIT Bombay, VNIT etc. to train and significantly improve technical knowledge and skills of students. Department also encourages entrepreneur activities for students to learn fundamentals of business to build their own startups. Faculties of our department are exclusively involved with IEDC, NEN, Incubation Centre and E-Cell activities.

The department keeps up to date with the continuous changes in the field of technology and encourages the students to keep track of the constantly changing world. The faculty members and students are involved in organizations like the IEEE, IETE and college body ESA. Projects done by department students are appreciated by corporate, at various national level competitions and exhibitions like Elekrama, Robocon, Texas Instruments and IEDC.

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Editors:
Dr. S. S. Rathod
Prof. Prashant Kasambe

Vision:

To create professionally **competent engineers, researchers and entrepreneurs** in the field of **electronics engineering** for the **benefit of society**

Mission:

- To impart **quality engineering education** as per the industry need
- To motivate students to undertake **research** on next generation technologies
- To create an **environment** that shall foster growth of professionals capable of effectively using the **scientific and technical knowledge** for the **betterment of mankind**

Programme Educational Objectives:

- **PEO1:** Graduates will have **successful career** in the chosen path utilizing **technical and professional skills**, while complying with **ethical standards**
- **PEO2:** Graduates undertake **research activities** on next generation technologies in electronics engineering
- **PEO3:**Graduates **pursue higher studies** in internationally recognized institutes/universities

Programme Outcomes:

Engineering Graduates will be able to:

PO1: Engineering Knowledge: apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

PO2: Problem Analysis: identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design & Development of Solutions: design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct Investigation of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

PO5: Modern Tools Usage: create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The Engineer and Society: apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment & Sustainability: understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

PO9: Individual & Team work: function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings

PO10: Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management & Finance: demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long Learning: recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes:

Apart from Programme Outcomes given by NBA, Electronics Engineering Department has decided following Programme Specific Outcome (PSO). Engineering Graduates will be able to:

- **PSO1:troubleshoot** electronic circuits, systems and products
- **PSO2:use open source tools** for engineering practice
- **PSO3:draft patent and research paper** as per the publication standards

Board of Studies (BOS) & Department Advisory Board (DAB)

Dr. Surendra S. Rathod (Chairman)
Professor and Head of Department,
S.P.I.T., Mumbai

Dr. Prachi Gharpure
Principal, S.P.I.T., Mumbai

Dr. Y. S. Rao (Invited Member)
Dean Research & Development, S.P.I.T.

Dr. Mahesh B. Patil (Domain Expert)
Professor, Dept. of Electrical Engineering,
Indian Institute of Technology Bombay,
Mumbai

Dr.Baylon G. Fernandes (Domain Expert)
Professor, Dept. of Electrical Engineering,
Indian Institute of Technology Bombay,
Mumbai

Academician (University Nominee)

Dr. Ravi Todi (Alumni)
Ph.D., Past IEEE Chair Region 1, Foundry Engineering Manager, Qualcomm Technologies Inc.
San Diego, CA – 92121

Mr. NandishAvalani
(Alumni & Industry Representative)
MS-North Carolina State University,
Engineer, Staff I- Electronic Design Central Engineering,
Broadcom Comm. Pvt. Ltd. Mumbai

Mr. Abhishek Sharma, (Alumni)
Ph.D. Researcher, Carnegie Mellon University, USA

Mr. Viral Hingarh (Alumni)
MBA IIM Indore,
Senior Manager, Axis Bank

Dr. R. R. Sawant
(Industry Representative)
Director, R&D and Planning
Inventronics Pvt Ltd, Mumbai

Mr. SomeshShrivastav
(Student Representative)

Mr. KeshviShrivastav
(Student Representative)

Mr. Parth Panchal
(Student Representative)

All faculty members of department

Salient Features of the Department:

- Department is received provisionally accredited by National Board of Accreditation (NBA) with effective 8/11/2013 and applied for reaccreditation. Department adopted outcome based education system as per the NBA norms
- Recently Institute received Academic Autonomy which will be implemented from next academic year. Department has also received Ph.D. Research Center in Electronics Engineering.
- This year many students have participated in industry organized project competitions.
- To encourage students for the research work, department reimburses registration money for publications to the students.
- Institute has allocated Rs. 50,000/-- per year to the department for the purchase of books in the department library. These books are available to the students for immediate reference.
- Department also encourage students to develop various mini-projects. Every mini-project gets maximum Rs. 1000/-- as reimbursement. Department also funds the final year projects as per the need.
- Department has vibrant mentoring system to help students at individual levels.
- Department has various schemes/programmes like SPES and SDP for skill development of students.

Alumni Testimonials:

Mr. Amey Chandrakant Thombre

Year of Graduation : 2017

Higher Education: MS (Information Systems with a concentration in Business Intelligence & Analytics) School of Business, Stevens Institute of Technology.

Previous Employment : Intern at Siemens, Honeywell etc.

The Department of Electronics Engineering at Sardar Patel Institute of Technology has played the most instrumental role in helping me work towards my career pursuits and delivering the finest technical and comprehensive skills. Department professors have always been a source of encouragement to research & innovate for the betterment of the society and always to match the gap between the problems of the industry and our classroom theory. This kind of values and unique approach has proved extremely helpful in my graduate studies. I feel immensely honored to have studied at such a place which not only focuses on outstanding technical education but also on a superior comprehensive development. My best wishes and regards!

Mr. Praful Prajapati

Year of Graduation : 2017

Present Employment : Trainee Software Engineer - Development at CITIUSTECH HEALTHCARE TECHNOLOGY PRIVATE LTD

Mumbai, Maharashtra, India

It was great time I spent in S.P.I.T. After completing my Diploma, I was very happy to get admission in Electronics department in S.P.I.T. It has very wonderful and cooperative faculty, modern labs, latest instruments and good placement opportunity. Professors and HOD are always helpful. They helped me a lot in my mini project and B.E project. They keep on organizing different seminars on latest technologies, Weekend workshops, IITians lecture on regular basis. In nutshell, Electronics department has made best efforts to provide all the facilities for betterment of their students. I would like to thank all the faculties and staff for making me a "Better person".

Mr. Ameya Thombre

Year of Graduation : 2017

Higher Education: M.S. in Industrial Engineering at Purdue University

Studying at Electronics Department of S.P.I.T was a great learning experience. I got innumerable opportunities to show my talents and versatility at the college. During my studies I got an opportunity to intern in research and development department, appliances division of Godrej & Boyce Mfg. Co. Ltd. The concepts of manufacturing, supply chain management and quality control I learned during internship and regular studies are found to be helpful during masters at Purdue University. The competitions and workshops held for us, helped us in learning Electronics practically as well as implementing the theoretical concepts, thus making us technically sound. These different opportunities i.e. Projects, Seminars, Workshops, Events have helped in shaping my life.

Mr. Akshay Bangera

Year of Graduation : 2017

Present Employment : System Design Engineer, Larsen & Toubro Defence

Electronics Engineering Department of S.P.I.T has provided me with a great environment for theoretical and practical learning. All the faculty and staff has provided are well – experienced and very helpful. Not only had they supported but encouraged us to participate in co-curricular activities and technical events which further enhanced my technical skills and soft skills. They also provided us with various industrial tools and software for our project work and technical events, they even provided us practical room for project work not only in college hours but also after the college hours which was of great help as didn't had to compromise with college hours when studied our academic curricular. Today the edge that I have in the cooperate world is All Thanks to support and guidance provided faculty and the infrastructure provided to me by department and college.

Mr. Nikhil Sunil Nandoskar

Year of Graduation : 2017

Higher Education: Master of Science (M.S.), Electrical Engineering at Pennsylvania State University

I find myself honored to be a part of S.P.I.T. Electronic Department. It was a dream come true!! Dr. S.S. Rathod, Dr. Rajendra Sutar, Prof. G. T. Haldankar, Prof. P. V. Kasambe, Prof. N.A. Bhagat, Prof. K. T. Talele are the gems of ETRX. There's a lot to learn from them. S.P.I.T. gave me opportunities to participate in Technical competitions, Drama competitions, College Fest, thus contributing to my overall development and skills. All the professors and staff are very helpful and supportive. I'm currently doing my MS in Electrical Engineering from Pennsylvania State University. S.P.I.T. Electronics is always gonna be the first step of my professional carrier.

Mr. Chetan Jogi

Year of Graduation : 2017

Higher Education: MBA, IIM Indore

Previous Employment : Siemens

On the first day of joining SPIT, I realized I had chosen the correct engineering institute and the correct stream too after listening to Dr. Rathod, HOD ETRX Department about the way engineers are about to change the upcoming future. Four years is a long time and yes, SPIT provides a great platform for learning and self-development. The faculties help in cultivating a positive approach towards academics which are accompanied by giving encouragement and support to participate in various technical competitions conducted by reputed Semi-Conductor companies like ARM as well as various technical workshops and paper presentations. I would say, this helped me a lot to bag an internship and a PPO by Siemens Ltd. The institute also provides excellent opportunities to excel in extra-curricular activities by giving exposure to managing cultural and technical festivals. The exposure to entrepreneurship because of IEDC and TBI are the icing on the cake!

Mr. Natasha Choudhary

Year of Graduation : 2017

Present Employment : Associate Engineer, LnT Technology Services

I graduated from the electronics department of Sardar Patel Institute of Technology in July 2017. Being a part of electronics department has really given me lot of opportunities to develop my technical skills. I realized how fortunate we were to have been introduced to so many softwares with licensed versions during the lab sessions, and workshops conducted by the HoD then, that when I was into the training period of my company I had no problem while working on a few of them. The technical concepts learnt in Microprocessor and VLSI still help me today in understanding the working of the project I am currently involved in. The support provided by the faculty and lab assistants during the final year project is also worth mentioning. Nonetheless it was a challenging but a beautiful learning experience.

Mr. Jayesh Khandagle

Year of Graduation :2017

Present Employment : Software Engineering Trainee at Citiustech Healthcare Technology Private Ltd Mumbai Area, India

When I reflect on my four years of S.P.I.T, I conclude that the experience not only made me a better Person, but also prepared me in unpredictable ways for my career. When I Joined Four years back I was very curious about new technologies and latest gadgets, after Studying in Electronics Department proved to be great stepping stone for me to explore them. Final year Project and Mini Project helped me to apply in solving real life problems what is taught in the curriculum. I got to enhance my skills by participating various competitions, volunteering in college festivals. All of this would not have been possible without the talented, experienced and inspiring professors which S.P.I.T has!!

Mr. Vivek Sakinala

Year of Graduation : 2017

Present Employment : Automation Engineer at Siemens (India) pvt Ltd.

Being a part of ETRX department was indeed a best experience because I was getting taught from some of the well experienced faculties and study was more practical oriented which helped me to become a "Skilled Engineer". No doubt Research work was always encouraged and faculties impeccably helped students in their Lab practicals & projectwork, hence Studying at SPIT opened horizon of opportunities for me, may it be in Reasearch, cultural, sports, tech seminars ,vacation workshops etc. I was awestruck at the very first glance when I saw the placement Statistics of this institute as it had best of the companies in its portal and TPO has trained & prepared us for interviews and aptitudes before starting of placements very thoroughly. I owe much of my career progress to all my faculties, mentors who were always there for the support and helped me in achieving my milestone !!!

Mr. Praneet Bala

Year of Graduation : 2017

Present Employment : Master's degree at University of Minnesota, Twin Cities

Sardar Patel Institute of Technology is an institute that strives to make professional individuals out of its students. The Electronics department builds an environment that helps students flourish in the field. The teachers and assistant staff members are super helpful and only expect to see you succeed. The occasional seminars, workshops, projects and competitions conducted, provide students with the opportunity to bring out the best in themselves. I take immense pride to be associated with this department and institute, and if I had the opportunity to do it all again, I would do so without batting an eye!

I wish the very best for the students who are about to begin their journey with the institute and to those who already have.

Ms. Jaskirat Kour

Year of Graduation : 2017

Higher Education: M.S. in VLSI design at Electrical Engineering, University of Southern California.

The height of a building is decided by the strength of its base and I believe SPIT Electronics has provided me with this solid foundation that I require to achieve great heights. The department has always been extremely supportive and has constantly encouraged us to take part in competitions, presentations, publish papers and attend workshops. This has not only helped us develop our technical skills but also develop an overall personality which is required in the outside world. Courses like VHDL, PLC and MATLAB outside classroom hours to give students an opportunity to learn beyond the prescribed syllabus was a great initiative by the department.

Thank you for everything!

Department Faculty:

	**Dr. S.S. Rathod** **Designation:** Dean Academics, Professor & Head **Qualification:** Ph.D. (IIT Roorkee) **Experience:** 19 Years **Expertise:** Semiconductor Device Modeling, VLSI Design, Radiation Effects **Email:** surendra_rathod@spit.ac.in		**Prof. Manisha Bansode** **Designation:** Assistant Professor **Qualification:** M.E. **Experience:** 08 Years **Expertise:** Electronics Circuit Design, Communication Engineering **Email:**manisha_bandose@spit.ac.in
	**Dr. Rajendra Sutar** **Designation:** Deputy HoD, Associate Professor **Qualification:** Ph.D. (VNIT Nagpur) **Experience:** 19 Years **Expertise:** Power Electronics, Instrumentation **Email:**rajendra_sutar@spit.ac.in		**Prof. G. T. Haldankar** **Designation:** Assistant Professor **Qualification:** M.E. **Experience:** 07 Years **Expertise:**Power Electronics **Email:** g_haldankar@spit.ac.in
	**Dr. Deepak C Karia** **Designation:** Associate Professor **Qualification:** Ph.D. Electronics **Experience:** 17 Years **Expertise:** Wireless & Mobile Communication, Networking **Email:** deepak_karia@spit.ac.in		**Prof.Priya Deshpande** **Designation:** Assistant Professor **Qualification:**M.Tech. **Experience:** 04 Years **Expertise:** Signal and Image Processing, Circuit Theory, Microprocessors and Applications **Email:** priya.chimurkar@spit.ac.in
	**Prof. K. T. Talele** **Designation:** Associate Professor **Qualification:** M.E. (Pursuing Ph.D.) **Experience:** 24 Years **Expertise:** Digital signal processing, Image, audio, video Processing, Machine Vision **Email:**ktvtalele@spit.ac.in		**Prof.Najib Ghatte** **Designation:** Assistant Professor **Qualification**: M.Tech **Experience:** 1 Year **Expertise:** LICD, IC Technology **Email:** er.nagib@gmail.com
	**Prof. N.A. Bhagat** **Designation:** Associate Professor **Qualification:** M.E. (Pursuing Ph.D.) **Experience:** 19 Years **Expertise:** Digital Design, VLSI **Email:** narendra_bhagat@spit.ac.in		**Prof.Jagdish Mali** **Designation:** Assistant Professor **Qualification:**M.Tech **Experience:** 03 Years **Expertise:** Wireless Networks, Embedded Systems **Email:** jamali0505@gmail.com
	**Prof. P. V. Kasambe** **Designation:** Assistant Professor **Qualification:** M.E. (Pursuing Ph.D.) **Experience:** 18 Years **Expertise:** Instrumentation, Linear IC, MEMS **Email:** prashant_kasambe@spit.ac.in		**Prof.Pawan Fakatkar** **Designation:** Assistant Professor **Qualification:** M.E. **Experience:** 01 Year **Expertise:** Embedded Systems **Email:** pawan_fakatkar@spit.ac.in
	**Prof. Payal Shah** **Designation:** Assistant Professor **Experience:** 09 Years **Qualification:** ME. **Expertise:** BEE, Power Electronics, Control System, Signal Processing **Email:** payal_shah@spit.ac.in		**Dr. Nitin Kale** **Designation: Adjunct Professor** **Qualification: Ph.D. (IITB)** **CEO of Nanosniff Technologies**
	**Prof.Shailesh Rokade** **Designation:** Assistant Professor **Qualification:**M.Tech. **Experience:** 3.5 Year **Expertise:** DSPP, Biomedical Instrumentation **Email:** shaileshrokade11@rediffmail.com		

Supporting Staff

	**Mr. Vijay Patyani** **Designation:** Technical Assistant **Qualification:** Diploma in Electrical Engineering **Email:** vijayane05@yahoo.com		**Mr. Jitendra Dongre** **Designation:** System Support Electronics **Qualification:** Diploma (Industrial Electronics), B. Tech. (EXTC) **Email**: jitendra.d69@gmail.com
	**Mrs. Deepali Yamgar** **Designation**: Lab Support **Qualification:** Diploma (Industrial Electronics) Pursuing B.Sc. (IT) **Email:** deepayamgar@gmail.com		**Mr. Chandrashekhar Gaikwad** **Designation:** Technical Assistant **Qualification:** B.E. **Email:**agharat6@gmail.com
	**Mr. NikhileshSariyan** **Designation:** Technical Assistant **Qualification:** B.E. **Email:**nikhilesh.sariyam@gmail.com		**Mr. MukundPawar** **Designation:** Clerk **Qualification: B.A.** **Email:**pawarmukund80@gmail.com
	**Mr. Naresh Navghare** **Designation:** Peon **Qualification:** 12th		**Mr. Abhishek Mandavkar** **Designation:** Peon **Qualification:** 12th **Email:** abhishekmandavkar@gmail.com

RECENT PUBLICATIONS BY FACULTY

Recent Journal Publications (2016-2017):

1. SiddhantArunGoswami, and **Deepak Karia,** "A compact monopole antenna for wireless applications with enhanced bandwidth", ***Elsevier journal of Electronics and communication***, Vol. 72, pp.33-39, Feb.2017.
2. PramodBhavarthe, **Surendra Rathod** and K.T.V. Reddy, "A Compact Two Via Slot-Type Electromagnetic Bandgap Structure,*" **IEEE Microwave and Wireless Components Letters,*** Vol. 27, No. 5, pp. 446-448, May 2017
3. **Rajendra G. Sutar** and A. G. Kothari, "An algorithm for detection of ECG morphological points using its non-linear energy" ***International Journal of Biomedical Engineering and Technology***, Vol. 22, No. 1, pp. 14-30, 2016.
4. Karan S. Shah , Samiksha R. Gupta , Gauri M. Dalvi , Surendra S. Ratrehod , Prashant V. Kasambe, "Performance Analysis Of MEMS Microheater By Optimizing Coil Design Using Coventorware," ***International Journal of Journal of Research in Engineering and Applied Sciences (JREAS)***, Vol. 1, Issue 03, pp. 135-140, July 2016

Recent International Conference Publications (2016-17):

1. Swati Darange, **K.T.V. Talele**&Soumyabrata Ghosh, "Edge Preserving and Smoothing and Enhancement for Electronic Portal Images", 2nd International Conference on Computing, Communication, Control & Automation organized by PimpriChinchwad College Of Engineering & IEEE Pune Section on 12th& 13th August 2016.

2.**Kiran Talele**, Archana Shirsat, TejalUplenchwar&KushalTuckley, “Facial Expression Recognition Using General Regression Neural Network”, IEEE Bombay Section Symposium at VPKBIET, Dec 22nd& 23rd, 2016.
3.Neha Shirbhate&**Kiran Talele**,” Human Body Language Understanding for Action Detection using Geometric Features”, 2nd International Conference on Contemporary Computing and Informatics, 14th to 17th Dec 2016.
4.**G. T. Haldankar**, HrishikeshTawade; Jay Trivedi; " An Empirical Intelligent Agent for Robot Navigation Problem Using Supervised Learning", IEEE conference, ICPEICES 2016, July 4-6, 2016.
5.Mahesh Bhor, **Dr. Deepak Karia**,” Certificate Pinning for Android Applications” IEEE International Conference on Inventive Systems and Control (ICISC 2017) Jan 2017, Coimbatore, India.
6.**Deepak C Karia**, Goswami SiddhantArun, “MMC: Multiple Metric Cost Routing Metric for Wireless Mesh Networks” IEEE International Conference on Global Trends in Signal Processing, Information Computing and Communication, Dec 2016, Jalgaon.
7.NamrataKumari, **Deepak C. Karia** “Design of Apollonian Gasket Bow Tie Antenna for Satellite Application” IEEE International Conference on Global Trends in Signal Processing, Information Computing and Communication, Dec 2016, Jalgaon.
8.NamrataKumari; **Deepak C. Karia** “Multiband Circular Bow Tie Antenna Design using Apollonian Gasket of Fractals” IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology, Sept. 2016.
9.Reena Sonkusare, **S. S. Rathod** "Analysis of Multifin n-FinFET for Analog Performance at 30nm Gate Length," IEEE Int. Conf. on Communication and Electronics Systems (ICCES), Coimbatore, Oct 2016.
10.Sushma Srivastava and **S. S. Rathod** "Synapse circuits Implementation and Analysis in 180nm MOSFET and CNTFET technology," 21st Int. Symposium on VLSI Design and Test (VDAT), Roorkee, June 2017
11.Shraddha Mayekar, **Manisha Bansode** and **S. S. Rathod**, “An Automated Antenna Pattern Measurement System,” *Int. Conf. on Intelligent Computing and Control(**I2C2**)*, Coimbatore, India, 23rd – 24th June 2017
12.Hemant Ogale, P. V. Kasambe, **S. S. Rathod**, “Implementation of PLC based Automated PCB Fabrication System,” Proceeding of International Conference on Advanced Trends in Engineering (ICATE-2017), sponsored by The Indian Society for Technical Education (ISTE), Mumbai, April 2017.
13.Reena Sonkusare, S. S. Rathod "Analysis of Multifin n-FinFET for Analog Performance at 30nm Gate Length," IEEE Int. Conf. on Communication and Electronics Systems (ICCES), Coimbatore, Oct 2016.
14.**K. T. Talele,** Dr. KushalTuckley "Human Action Unit Detection of Patient using Geometric Feature Analysis" National Conference on Innovations in Engineering and Management Education (TENCON), Marina Bay Sands, Singapore, Nov. 2016.
15.Richa S. Wadekar, Prashant V. Kasambe, **S. S. Rathod**, “Development of LabVIEW Platform for EEG Signal Analysis.” Proceedings of International Conferenceon Intelligent Computing and Control (I2C2), Coimbatore, India, Vol 3, pg. 224-228, ID-978-1-5386-0373-4, 23rdJune, 2017.
16.Neha Korde, **Narendra Bhagat**, “A Novel Fault Monitoring Mechanism for Overhead Transmission Line”, International Conference on Intelligent Computing and Control (I2C2), pp. 184-189, 23rd 24th June 2017

Recent National Conference Publications (2016-17):

1. **S. S. Rathod** and **PrachiGharpure**, **"**Implementation of Career Guidance System in Undergraduate Study for Smooth Transition to Future Prospects"National Conference on Innovations in Engineering and Management Education(NCIEME-16), pp. 40-45, Dec 2016.
2. **S. S. Rathod, P. V. Kasambe** and **PrachiGharpure "**Measuring the Effectiveness of Collaborative Learning through Technical Competitions"National Conference on Innovations in Engineering and Management Education(NCIEME-16), pp. 46-50, Dec 2016,

Recent Patents Published:

[1] **Patent Title:** COMBINATION OF CELLULAR PHONE HAVING ELECTRO SHOCKING DEVICE AND REMOTE ALERT SYSTEM
Inventor: Jadhav Ninad, Jain Manish, Ostwal PraJakta and **K.T.Talele**
Application No.817/MUM/2015 **Date of filing of Application:13/03/2015**
Publication Date:16/09/2016

[2] **Patent Name:**ULTRASONIC BROADBAND GENERATOR
Inventor: Vakadkar Amogha, Rege Kunal,Thakur Rohan, Bhataria Manojand **Surendra Rathod**,
Application No.1401/MUM/2013**Date of filing of Application:**13/03/2015
Publication Date :28/04/2017

Guest Lectures/ Invited Talks Delivered by Faculty and Achievements in 2016-17:

1. S. S. Rathod received Elite +Gold Medal Category Top 2% in India (95% result) certificate in Four Week NPTEL online course with Examination on 'Outcome based pedagogic principles for effective teaching' organized by IIT Kharagpur from 23 Jan – 17 Feb 2017.
2. Dr. S. S. Rathod visited Strasys Ltd Bengaluru and PES University Bengaluru for Industry interaction during ARM Design contest and interaction with TVS motors engineers.
3. Dr. S. S. Rathod is invited to join the member of national advisory board of Eduvance Inc.
4. Dr. S. S. Rathod is instrumental in executing MoU with Cogenda Singapore for research collaboration.
5. Dr. S. S. Rathod along with members from other departments visited RIT Sakharale and WCE Sangli for academic interaction between institutes.
6. Dr. S. S. Rathod was invited as reviewer for various international conference e.g. ICTIEE international conference organized by IUCEE, RACEM 2016 international conference organized by VIT Mumbai
7. Dr. S. S. Rathod was invited as reviewerand session chair at Inter. Conf. organized by DMCE Airoli, National conf. organized by BVIT Mumbai, Inter. Conf. ICNTE 2017 organized by FCRIT Vashi.
8. Dr. S. S. Rathod conducted workshop on 'Outcome Based Education' at Agnel Polytechnic Vashi from 23 to24 Jan and 28 Jan 2017.
9. Dr. S. S. Rathod conducted workshop on 'Outcome Based Education' at M.H.SabooSiddik College of Engineeringon 29-30 July 2016.
10. Dr. S. S. Rathod conducted workshop on 'SAR Preparation' at Kalsekar Polytechnic on 14th Jun 2017.
11. Dr. S. S. Rathod conductedworkshop on 'OBE and NBA' at SIES Engineering College in 2017.
12. Dr. S. S. Rathod was invited as resource person for workshop on 'VLSI and its industry relevance' at Atharva College of Engineering on 12/08/2016
13. Dr. S. S. Rathod delivered seminar on "Need of Ethics in Research" at S.P.I.T. on 11th Nov. 2016.
14. Dr. S. S. Rathod took two sessions during workshop 'MSP-FPGA Hardware &Software co-design' organized by EXTC dept. of S.P.I.T. on 16th-17th Sep 2016
15. Dr. S. S. Rathodwas workshop coordinator for Two week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design conducted by IIT Kharagpur.
16. Dr. S. S. Rathod was invited to deliver a talk on "Novel Multi-gate Semiconductor Technologies" during NCATM-2017 National Conference on 24 March 2017 at ACPCE Kharghar.
17. Dr. S. S. Rathod is the Member of Department academic board (DAB) at FCRIT Vashi and CRCE Bandra.
18. Dr. S. S. Rathod was invited as auditor for EXTC department at FCRIT Vashi
19. Dr. S. S. Rathod was invited as auditor for ETRX and EXTC department at K.C. College of Engg. & Management Studies & Research Thane.
20. Dr. S. S. Rathod was invited to judge the project competition organized by DBIT Kurla on 7 April 2017 and also at NMIMS Vile Parle.
21. Dr. S. S. Rathod was invited for assessment and critical review of NBA SAR at BharatiVidyapeeth College of Engineering Navi Mumbai.
22. Dr. S. S. Rathod was invited as an expert on Ph.D. research candidate selection at FCRIT research center.
23. Dr. S.S. Rathod was appointed as an expert on USSC panel at various colleges e.g. Gharda Institute of Tech,Finolex Academy of Management and Technology, New Horizon Engg college etc.

Faculty Roles and Responsibility:

Dr. S. S. Rathod	Dean Academics, Head of Department
Dr. R. G. Sutar	Deputy Head of Department
	Power Electronics Lab In-charge
Prof. K. T. Talele	MCA Coordinator
	SPTBI Coordinator
	IEDC Coordinator
	IEEE Bombay Student Activity Chair
	ESA Coordinator
	DSP Lab In-charge
Prof. D. C. Karia	Program Coordinator
Prof. N. A Bhagat	Gymkhana Chairman
	Head of Student Welfare Committee
	Digital Design Lab In-Charge
Prof. P. V. Kasambe	Project Coordinator
	Instrumentation Lab In-Charge
Prof. Payal Shah	Department Library In-Charge
	In-Charge of Electronic Workshop
Prof. Manisha Bansode	Timetable In-Charge
	Electronic Devices and Circuits Lab In-Charge
Prof. G. T. Haldankar	Remote Center Coordinator
	ROBOCON Coordinator
	In-Charge of Analog Design Lab
Prof. Priya Deshpande	R & D Committee Member
	Microprocessor Lab In-Charge

24. Dr. S.S. Rathod was appointed as an examiner for M.Tech and Ph.D. thesis from Dravidian University, Hyderabad, Sant Gadgebaba University, Amravati, Guru Nanak Dev University, Amritsar, VJTI Mumbai etc.
25. Dr. S.S. Rathod was invited as an expert for Sardar Patel College of Engineering PG Electrical Staff appointments.
26. Prof. P V Kasambe has conducted one day workshop "Introduction to LATEX" on 7th April 2017 at SPCE, Mumbai.
27. Prof. P V Kasambe has conducted 12 Hrs workshop "Basics of MATLAB and Simulink" SPIT, Mumbai.
28. Prof. G. T. Haldankar has conducted Four week FDP workshop under IITB "Use of ICT in education for online and blended learning" on 2nd May-10th July 2016.
29. Prof. G. T. Haldankar and Prof. Payal Shah has conducted one day workshop " Open source simulation software" on 2nd October 2016 at Electronics Engineering Department, S.P.I.T, Andheri.
30. Dr. S. S. Rathod has conducted Two week workshop "CMOS, Mixed signal and radio frequency VLSI design" from 30th January to 4th February, 2017 organized by IITB.
31. Prof. G. T. Haldankar and Prof. Payal Shah has conducted one day workshop "Open source simulation software workshop for students" on 2nd October 2016 at Electronics Engineering Department, S.P.I.T, Andheri.
32. Prof. G. T. Haldankar has conducted two week workshop " Foundation program in ICT for education" from 3rd aug to 10th nov 2016 under IITB.
33. Prof. K. T. Talele had talk on "Digital Signal Image Processing and Computer Vision" on 1st April 2017 at IEEE PCE Mumbai.
34. Prof. K. T. Talele had talk on "Entrepreneurship Development Center" on 7th July 2016 at Finolex Academy of Management and Technology.
35. Prof. K. T. Talele had delivered lecture on "Digital Signal, Image Processing and Computer Vision" in Skill and Knowledge Enhancement Program organized bt IEEE Student Branch DBATU Lonero " on 9th July 2016.
36. Prof. K. T. Talele was invited to join Advisory Committee for Entrepreneurship Development Cell at Sinhgad Institute of Technology at Lonavala on 23rd July 2016.
37. Prof. K. T. Talele delivered Seminar on "Video Analytics" on 29th August 2016 at Atharva College of Engineering.
38. Prof. K. T. Talele had talk on "Digital Signal Image Processing" in Connaissance –Bridge Gap organized by Don Bosco Institute of Technology on 13th April 2017.
39. Prof. K. T. Talele had guest lecture on "Digital Image Processing and Computer Vision" on 1st april 2017 at Pillai Institute of Technology, Wadala.
40. Prof. G. T. Haldankar had conducted Expert lecture on "Open Source Hardware and Software" on 17th Dec 2016 organized by Vande Mataram Degree College.
41. Prof. G. T. Haldankar had an Informative lecture on "ExpEYES" on 4th Feb 2017 organized by Vidya Prasarak Mandal's Polytechnic.
42. Prof. G. T. Haldankar had conducted lecture on "ExpEYES Software" by Sandip Institute of Technology And Research Center, Nashik on 23rd July 2016.

S. S. Rathod received recognition as IUCEE (Indo Universal Collaboration for Engineering Education) Faculty Fellow for the year 2016.

Prof. Prashant Kasambe received **'Best Teacher Award'** by **Cognizant (India) Pvt. Ltd.** for Implementation of Innovative Teaching Learning Practices in 2017**.**

S. S. Rathod was awarded as a **Distinguished Professor by Computer Society of India (CSI)** for successfully demonstrating innovative and outstanding teaching methodology, organized by **IITB,** 2017. **S. S. Rathod** was alsoawarded as a **Distinguished HOD by Computer Society of India (CSI)** for successfully demonstrating innovative and outstanding teaching methodology, organized by **IITB,** 2017.

Training Programmes Attended by Faculty in the Academic Year 2016-17:

Sr. No	Name of the staff	Subject of the workshop	Organizer	Date	Duration
1	Dr. S. S. Rathod	VLSI Design Flow using Xilinx Vivado targeting Xilinx 7-series FPGA and ZynqSoC architecture	Coreel Technologies Sandeepani School of Embedded System Design, Bengaluru	6th-10th Sep 2016	One week
		One week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design	IIT Kharagpur	19th-23rd Sep 2016	One week
		Four Week NPTEL online course with Examination on 'Outcome based pedagogic principles for effective teaching'	IIT Kharagpur	23rd Jan–17th Feb 2017	Four week
		Twelve Week NPTEL online course with Examination on 'Digital VLSI Testing'	IIT Kharagpur	23rd Jan–14th Apr2017	Twelve week
		Twelve Week NPTEL online course with Examination on 'VLSI Physical Design'	IIT Kharagpur	23rd Jan–14th Apr2017	Twelve week
2	Prof. P V Kasambe	MEMS conference- MEMS design to Manufacturing	FTD Infocom Pvt. Ltd., Bangalore	15th Feb 2017	One day
		CMOS, Mixed signal and radio frequency VLSI design	IIT Kharagpur	30th Jan-4th Feb 2017	Two week
3	Prof. N. A. Bhagat	CMOS, Mixed signal and radio frequency VLSI design	IIT Kharagpur	30th Jan-4th Feb 2017	Two week
4	Prof. G. T. Haldankar	Renewable Energy and Ancillary Services	V.J.T.I, Mumbai	9th -13th Dec. 2016	One week
		Innovations and applications of engineering mathematics	Vidyalankar Institute	28thNov-2nd Dec, 16	One week
		Attended conference for SSC teachers on "Spiritual Education for Happy and Peaceful Life"	SPARC, Mount Abu.	22nd Sept to 26th Sept 2017	One week
		Certification Online Course on "Embedded System"	conducted by NPTEL	13th Jan-23rd Apr 2017	Twelve Week
		Certification Online Course on "Soft Skills"	conducted by NPTEL	13th Jan-23rd Apr 2017	Twelve Week
		Real time digital signal processing using DSP processor	S.P.I.T., Andheri	13th- 17th Jun 2016	One week
		"Technology for Development of Rural Areas"	AISTE sponsored oraganised by S.P.I.T.	27-28th Nov. 2017	Two days
		"Entrepreneurship Education Program"	SPIT, Andheri,Mumbai	20th - 24th Jun 2017	One week
5	Dr. R. G. Sutar	Conference on-Microchip Masters	Microchip Bangalore	30th Nov- 2nd Dec 2016	Three Days
6	Prof. Najib Ghatte	Design Thinking	SPJIMR, Andheri, Mumbai	3rd -4th Jan 2017	Two days

Scheme of Syllabus Offered By Department and Expected Primary Outcome:

Course code	Course Name	Primary Outcome
		SEM-I
FEC101	Applied Mathematics-I	Ability to apply mathematics to solve engineering problems
FEC102	Applied Physics-I	Ability to demonstrate knowledge of principles of physics
FEC103	Applied Chemistry-I	Ability to demonstrate knowledge of principles of chemistry
FEC104	Engineering Mechanics	Ability to demonstrate engineering knowledge in mechanics
FEC105	Basic Electrical Engineering	Ability to demonstrate engineering knowledge of basic principles of electrical and electronics
FEC106	Environmental studies	Ability to understand the environmental issues, impact of engineering solutions on environment and its sustainability
FEL101	Basic Workshop Practice-I	Ability to demonstrate knowledge of engineering skills in using workshop tools
		SEM-II
FEC201	Applied Mathematics-II	Ability to apply mathematics to solve engineering problems
FEC202	Applied Physics-II	Ability to demonstrate knowledge of principles of physics
FEC203	Applied Chemistry-II	Ability to demonstrate knowledge of principles of chemistry
FEC204	Engineering Drawing	Ability to demonstrate knowledge in engineering drawing
FEC205	Structured Programming Approach	Ability to demonstrate structured programming skills
FEC206	Communication Skills	Ability to demonstrate communication skills
FEL201	Basic Workshop Practice-II	Ability to demonstrate knowledge of engineering skills in using workshop tools
		SEM-III
EXS301	Applied Mathematics-III	Ability to identify, formulate and solve engineering problems with mathematics
EXC302	Electronics Devices	Ability to demonstrate knowledge of physics of semiconductor devices
EXC303	Digital Circuits and Design	Ability to analyse and design digital logic circuits
EXC304	Circuit Theory	Ability to evaluate time and frequency response of electronic circuits and transmission lines
EXC305	Electronic Instruments and Measurements	Ability to demonstrate knowledge of instrument design
EXL301	Electronic Devices Laboratory	Ability to simulate electronic devices and demonstrate understanding of device characteristics
EXL302	Digital Circuits and Design Laboratory	Ability to implement digital logic circuits
EXL303	Circuit Theory and Measurements Laboratory	Ability to demonstrate conduct experiments, record and interpret data with electronic instruments
EXL304	Object Oriented Programming Methodology Laboratory	Ability to write a JAVA code and implement object oriented programming concepts
		SEM-IV
EXS401	Applied Mathematics IV	Ability to identify, formulate and solve engineering problems with mathematics
EXC402	Discrete Electronic Circuits	Ability to analyse and design discrete electronic circuits
EXC403	Microprocessor and Peripherals	Ability to demonstrate understanding of microprocessor systems
EXC404	Principles of Control Systems	Ability to derive models, analyse and apply control theory to design of controllers
EXC405	Fundamentals of Communication Engineering	Ability to demonstrate understanding of principles of communication systems

EXC406	Electrical Machines	Ability to demonstrate understanding of working principles of various types of motors
EXL401	Discrete Electronics Laboratory	Ability to simulate and implement discrete electronic systems
EXL402	Microprocessor and Peripherals Lab	Ability to execute assembly language programme and interface peripheral devices
EXL403	Control Systems and Electrical Machines Laboratory	Ability to perform experiments, collect data and interpret results for control systems and electrical machines
EXL404	Communication Engineering Lab	Ability to use modern tools in communication engineering
	SEM-V	
EXC501	Microcontrollers and Applications	Ability to design microcontroller based electronic systems
EXC502	Design with Linear Integrated Circuits	Ability to design electronic circuits with the use of linear integrated circuits
EXC503	Electromagnetic Engineering	Ability to solve complex problems with theory of electromagnetic engineering
EXC504	Signals and Systems	Ability to analyse signals and systems in time as well as frequency domain
EXC505	Digital Communication	Ability to demonstrate understanding of digital communication systems
EXS506	Business Communication and Ethics	Ability to demonstrate knowledge of business communication with ethical standards
EXL501	Microcontrollers and Applications Lab	Ability to program and implement microcontroller based real life applications
EXL502	Design with Linear Integrated Circuits Laboratory	Ability to implement linear integrated circuits in laboratory
EXL503	Digital Communication Laboratory	Ability to demonstrate working of digital communication systems
EXL504	Mini Project	Ability to design and execute project in a team with effective communication to solve multidisciplinary societal/environmental/ health related real life problems by applying principles of project management and finance
	SEM- VI	
EXC601	Basic VLSI Design	Ability to analyse and design MOSFET based digital VLSI circuits
EXC602	Advanced Instrumentation Systems	Ability to demonstrate knowledge of principles of advanced instrumentation system
EXC603	Computer Organization	Ability to demonstrate knowledge of computer organization
EXC604	Power Electronics I	Ability to demonstrate knowledge of power devices and principles of power electronics systems
EXC605	Digital Signal Processing and Processors	Ability to use knowledge of signals and systems for digital signal processing and demonstrate knowledge of architecture of DSP processors
EXC606	Modern Information Technology for Management	Ability to use principles of management
EXL601	VLSI Design Laboratory	Ability to use modern circuit simulation tools in VLSI
EXL602	Advance Instrumentation and Power Electronics Laboratory	Ability to effectively use instrumentation system and implement power electronic circuits
EXL603	Mini Project II	Ability to design and execute project in a team with effective communication to solve multidisciplinary societal/environmental/ health related real life problems by applying principles of project management and finance
EXL605	Digital Signal Processing and Processors Laboratory	Ability to write, simulate and implement a program by applying principles of digital signal processing to solve engineering complex problems with the use of modern tools
	SEM VII	
EXC701	Embedded System Design	Ability to design embedded system
EXC702	IC Technology	Ability to demonstrate knowledge of state of the art VLSI technology
EXC703	Power Electronics-II	Ability to analyse and apply principles of advance power electronics systems

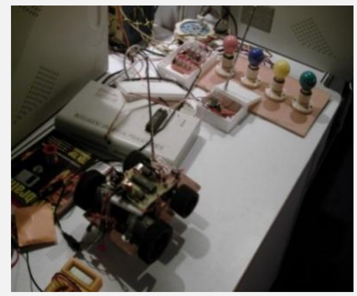
EXC704	Computer Communication Networks	Ability to demonstrate knowledge of computer communication networks
EXC705-I	Digital Image Processing (Elective)	Ability to demonstrate knowledge of image processing techniques and algorithms
EXC705-II	Artificial Intelligence (Elective)	Ability to demonstrate knowledge of neural network and fuzzy logic
EXC705-III	ASIC Verification (Elective)	Ability to apply knowledge of object oriented programming, verilog and digital design for ASIC verification
EXC705-IV	Optical Fiber Communication (Elective)	Ability to demonstrate knowledge of optical fiber communication
EXC706	Project-I	Ability to search the literature, design and execute project in a team with effective communication to solve multidisciplinary societal/environmental/ health related real life problems by applying principles of project management and finance
EXL701	Embedded System Design Laboratory	Ability to program and implement embedded system
EXL702	IC Technology Laboratory	Ability to do process and layout simulations of VLSI devices and circuits
EXL703	Power Electronics-II Laboratory	Ability to analyse and apply principles of advance power electronics systems
EXL704	Computer Communication Networks Lab	Ability to solve issues in computer communication networks
EXL705-I	Digital Image Processing (Elective) Lab	Ability to simulate various image processing algorithms
EXL705-II	Artificial Intelligence (Elective) Lab	Ability to solve complex engineering problems with the use of modern tools by applying principles of neural network and fuzzy logic
EXL705-III	ASIC Verification (Elective) Lab	Ability to write system verilog code and simulate it with modern tool for ASIC verification
EXL705-IV	Optical Fiber Communication (Elective) Lab	Ability to demonstrate understanding of implementation of optical fiber communication
SEM-VIII		
EXC801	Analog CMOS VLSI Design	Ability to analyse and design analog CMOS VLSI circuits
EXC802	Advance Networking Technologies	Ability to demonstrate knowledge of networking technologies
EXC803	MEMS	Ability to demonstrate knowledge of MEMS processes, devices and their applications
EXC804-I	Robotics	Ability to demonstrate knowledge of robotic systems
EXC804-II	Mobile Communication Technology	Ability to demonstrate knowledge of networking technologies
EXC804-III	Digital Control System	Ability to analyse and design digital control system
EXC804-IV	Biomedical Electronics	Ability to analyse and design biomedical instrumentation system
EXC806	Project-II	Ability to search the literature, design and execute project in a team with effective communication to solve multidisciplinary societal/environmental/ health related real life problems by applying principles of project management and finance
EXL801	Analog CMOS VLSI Design Lab	Ability to use modern circuit simulation tools for analog CMOS VLSI design
EXL802	Advance Networking Technologies Laboratory	Ability to solve issues in advance networking technologies
EXL803	MEMS Laboratory	Ability to simulate MEMS devices with modern tools
EXL804-I	Robotics Laboratory	Ability to demonstrate implementation of principles of robotics
EXL804-II	Mobile Communication Technology Lab	Ability to demonstrate knowledge of issues in implementation of mobile communication technologies
EXL804-III	Digital Control System Laboratory	Ability to implement digital control system in laboratory
EXL804-IV	Biomedical Electronics Laboratory	Ability to implement biomedical instrumentation systems and thereby understand issues related to design of medical instruments

Laboratories:

Sponsored Labs:

1. Texas Instruments Analog Design Lab
2. Texas Instruments MSP Lab
3. ARM University Programme
4. PSoC by Cypress Semiconductor
5. Power Electronics Lab from Texas Instruments(I) (received in 2016-17)

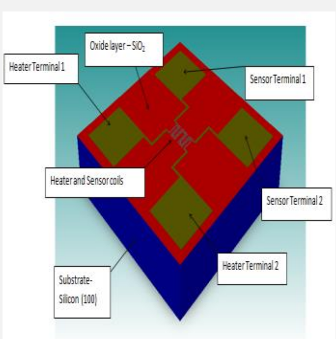


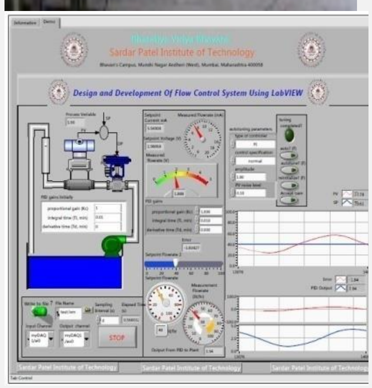











S.N.	Laboratory	Major Inventory
1	Power Electronics and Basic Electricity & Electronics Lab	Inverter's, John's chopper, Morgan's chopper, Step up chopper, Cyclo-converter, PWM inverter, Fully controlled converter, Half controlled converter, Lamp loads, Autotransformers, IGBT stack from Semicron Maxwell's bridge, Wein's bridge, PSIM, Hakko Soldering Sation, Scientic 30 Mhz Powerscope, Model SM901, Acer Intel Core i5 6400, DC supply 0-300mA.
2	Electronic Devices & Circuits Lab	DSOs, CROs, Function Generators, Multimeters, Bread-boards, Decade resistance/capacitance Box and Inductance Box, EDA tools like PSPICE
3	Digital Circuits Lab	40 MHz DSO, 25 MHz CRO, 2MHz Function Generator, Regulated Variable Power Supply 5V/1A, Digital System Designer, Digital IC Tester, DMM Benchtop, BOSSTEK Make, Wipro Desktop-Intel core IS 530 processor
4	Analog Circuits Lab	DSOs, CROs, Function Generators, Multimeters, Bread-boards, Decade resistance/capacitance Box and Inductance Box, EDA tools like PSPICE
5	Microprocessor Lab	8085 Trainer Kits, 8051 Kits, PIC controller Kits, 8086 Trainer Kits, Microchip DV164136 PIC18F Developers Kit, Single Board Comp/Eval board Phillips LPC 214x Series, Model-ESA Keil MCB2140, Labtool 48XP, Desktops
6	Electronics Workshop Lab	PCB etching machine, PCB drilling machine, Bench type drilling Machine, SMD rework station & Desoldering station, 40 MHz DSO, 25 MHz CRO, 2MHz Function Generator, Regulated Variable Power Supply 5V/1A, DMM Benchtop
7	Electronics Instrumentation and Robotics Lab	Labview, myRIO, Smart Camera Interface, Mechatronics Interface, Robotic Arm, PLC Trainer, NI ELVIS and NI MyDaq, SCADA, Temperature controlled trainer, Flow controlled trainer, Speed and liquid level measurement trainers, Single phase induction motor, Trainer kits for Robotics, Computers, Transducer based systems like LVDT, strain gauge, magnetic flow meter, Inductive pick up, Capacitive pickup, Photoelectric pick up, Rotameter
8	Digital Signal processing Lab	Thermal Camera, DSP Board TMS 320F, DSPStarter Kit (DSK JMS 320C6713 with CCS), DSP Starter kit TMS 320c5416, DSP Starter kit TMS320c5402, DSK-50 DSP Trainer, Xilinx VLSI Design Software, DSP-IN-VLSI-MXSFK-DSP-003 Trainer Kit, DSP Application Software, TDS 2CMA -Communication Module, Intel Web Camera, Hameg 150 MHz D.S.O. , Arbitrary Function Generator, Computers.
9	VLSI and Embedded Systems Lab	COMSOL, Coventorware, Sensimer, Arbitrary Function Generator, Mentor Graphics Tool Set, MSP 430 Development Boards, C2000 Development Boards, Android Development Board for Sitara Processors, PSoC Development Boards, ARM Development Boards, PIC Development Board, Aruino Yun Boards, 8051, 8952 series board, Labtool's, AVR ISP, KEIL with hardware, SoC development board (CGCorel), Tanner Tool Set, Open Source Tools, Computers, PC (Acer-5).
10	Project and R&D Lab	Project specific inventory

Center for Research in Neuromorphic Engineering (CRINE):

Sardar Patel Institute of Technology started CRINE with the mission of driving innovation through learning from neurons. The objective of this center is to promote research in neuromorphic engineering, to promote collaboration between colleges and disciplines and to enhance industry institute interaction. The institute has also signed MOU with Eduvance and the center is supported by Cypress Semiconductors University Alliance Program. Department also signed MoU with Cogenda Pvt Ltd. (Singapore) for research collaboration in semiconductor TCAD. There are research candidates working on problem statements related to neuromorphic engineering and several papers are published on circuit design of neuromorphic circuits.

Department Library:

Department Library is an essential and valuable component of the Electronics Engineering Department. It supports outstanding research carried out in the department. Library provides easy access of books and references to the students and faculties to enable learning and advancement of knowledge. These references are proved as immediate available valuable resource during practical and project sessions.

The mission of the Department Library is to facilitate creation of new knowledge through acquisition and to provide value added services. The Departmental library has an open access and is managed by a teacher in charge with the help of student's team. Department library committee manages issue/collection and all other related tasks of departmental library. Department library has more than 1000 books. Every year books worth Rs. 50000/-- are added to the department library.

Teacher Performance Appraisal and Development System (TPADS):

Today teachers have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, teachers need to innovate and conduct research for their self-renewal, keep abreast with changes in technology, develop expertise for the effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real life problems in industry. SWAT analysis, academic audit and appraisal system are the mechanisms used in the department to give feedback/suggestions to the teachers on their contribution to the development of the institution.

I. Appraisal System:

An effective performance appraisal system for teachers is vital for optimizing the contribution of individual teachers to institutional performance. Institute has a well defined appraisal system and it is effectively implemented in the department. Every teacher submits self-appraisal forms via head of the department to the principal. Self- appraisal forms are as per the cadre of the teacher. In presence of head of department principal conducts one to one meeting with all the teachers gives feedback/suggestions/comments on the performance. Also institute has a policy of sending one faculty every semester to Indian Institute of Technology Bombay for self up gradation. Under this policy in teacher is sponsored to undertake at least one M.Tech level credit course at IIT Bombay. Teachers are also encouraged to participate in NPTEL and SWAYAM courses for skill upgradation, Teachers have completed many courses offered by NPTEL.

II. Development System:

Another role relates to the shouldering of administrative responsibilities to co-operation with other teachers, heads-of-departments and the Head of Institute. To inculcate the leadership qualities, positive thinking skills and motivation to achieve goals, institute has instituted faculty development programme (FDP) which is scheduled on every Friday between 4.00 pm to 6.00 pm for all the teachers of the institute. The various brainstorming activities are conducted under this programme.

III. Academic Audit:

Academic audit of teaching as well as non-teaching staff is done at the end of every academic year. For non-teaching staff, the department faculty conducts the academic audit. While for the academic audit of teaching faculty an academic expert from other eminent institution is invited. Dr. ShailaSubbaraman, Professor Walchand College of Engineering, Sangali was invited in May 2016 for the academic audit. During the academic audit articulation of the course outcomes, their mapping and assessment is evaluated by the auditor for all the courses. One-to-one feedback by auditor to teachers helps in the revision of the course outcomes and their attainment.

Faculty Development Program:

Two Week STTP on 'CMOS, Mixed signal and radio frequency VLSI design' organized by IIT Kharagpur

(30th Jan-4th Feb 2017)

Design, analysis and implementation of CMOS Mixed Signal and RFIC are attractive topics both in academia and Industry. CMOS RFIC design is a challenging and critical engineering task particularly in the arena of deep sub-micron technology. There is a strong demand of manpower having thorough knowledge and hands on experiences in VLSI design using state of the art EDA tools.

ISTE STTP on **"CMOS, Mixed Signal and Radio Frequency VLSI Design"** during January 30 - February 4, 2017 under Train Ten Thousand Teachers (T10KT) project by IIT Kharagpur and IIT Bombay. The course was delivered as Blended MOOCs. **Prof. T. K. Bhattacharya, Prof. Indrajit Chakrabarti, and Dr. Mrigank Sharad** of Department of Electronics & Electrical Communication Engineering, IIT Kharagpur were research persons.

Providing the fundamental knowledge regarding subject like VLSI Design, Fundamentals of Radio Frequency Engineering, Design and Implementation of Mixed Signal Circuits and Systems, Design and Analysis of Radio Frequency Integrated Circuits, Mixed Signal and RFIC Design, Analog Front-End Design, Digital VLSI Circuits were the expected outcome of the course.

FDP on 'Laboratory Experimentation with Cadence Toolset for Analog VLSI Design'

(14th -15th Dec. 2016)

Integrated circuits incorporating both digital and analog functions have become increasingly prevalent in the semiconductor industry. Complex digital circuits are now commonly combined with analog circuits as part of the continuing drive toward higher levels of electronic system integration. Apart from difficult task of optimization, one has to consider various non-idealities introduced by devices. Analog circuit design is therefore challenging task. Now necessity of analog circuit designers is being acutely felt by electronic industry. This course was primarily on the cadence toolset. This course was useful for the teachers from Mumbai University who conduct experiments for CMOS Analog VLSI Design course.

Resource Persons were Mr.Venugopal D Kulkarni (Consultant - Analog/ Mixed Signal Circuits and Systems Design) and Mr.Binu Alias (VLSI Application Engineer). Day 1 was on Fundamentals of Analog Signal Processing and Day 2 was on Small Signal DC Design and Simulation of the Basic Differential Pair/ Analog Layout Design Concepts Interpreting the Design Specifications. Participants were given hands-on training during the workshop on various laboratory experiments. The course was attended by 25 participants and it was very well received by them.

Panel Discussion on "New Course: A recipe for successful autonomy":

Panel Discussion on "New Course: Recipe for Successful Autonomy" was organized by Electronics Engineering Department of S.P.I.T. on 19th Aug 2016 at 4.00 pm. The objectives of panel discussion were namely to get the perspective on curriculum from the domain experts from other academic institutes and to identify at least one new course per department that will be the recipe for successful autonomy. The panelist were Dr. Archana Bhise, Professor, Department of Electronics and Telecommunication Engineering, Mukesh Patel School of Technology Management and Engineering, Dr. R. G. Karandikar, Professor, Electronics and Telecommunication Department and Dean Academic Programme of K. J. Somaiya College of Engineering, Dr. Sudhakar Mande, Chairman BoS Electronics Engineering Mumbai University, Dr. Subhash Shinde, Chairman BoS Computer Engineering Mumbai University and Dr. D. R. Kalbande, Chairman BoS Master of Computer Applications Mumbai University. Dr. Surendra Rathod, Professor Electronics Engineering Department was the moderator of the panel discussion.

Dr. Prachi Gharpure had given opening remarks for the panel discussion and expressed her views about the necessity of taking opinion from academic experts in view of pending autonomy. There are many new courses suggested by the experts which can be included under autonomy. The courses suggested for EXTC department are Bluetooth technology, quantum technology, software defined radio, Nanoelectronics, nanotechnology, building automation, *Cryptography for bid data, data compression, coding techniques for communication systems*, *low voltage analog signal processing* and *wireless sensor networks*. The courses suggested for ETRX department are design of high speed circuit, flexible electronics, reliability testing and consumer electronics. The courses suggested for Computer and IT department are Open source engineering, Mobile application development technology, LAM technology, Social network analysis, Quantum computing, Machine learning, Web Technologies (Code optimization techniques), IoT based subjects. It was suggested to have IoT as institute level elective. The courses suggested for MCA department are Open source tools, IoT attacks & Security, Digital Forensic and Image Analytics.

Technical Paper Presentation Contest:

Technical paper presentation competition was conducted at departmental level between the students of B.E, T.E and S.E. The objective of this competition was to provide a platform for students so that they can explore and develop their presentation and technical paper writing skills. For this competition all students of BE ETRX participated and faculties of Electronics and Telecommunication Department were judges. Evaluation of presentation was done using assessment sheet given to them by R & D Committee. Also parallel assessment was done on technical paper written by students and suggestions were given to them. From this presentation 3 groups were selected as winners.

Troubleshooting Competition:

Every semester a troubleshooting competition was conducted at departmental level between the students of S.E and T.E. The objective of the competition was to provide a common platform for the students to exhibit and develop trouble shooting skills in the field of electronic circuits. The competition was organized in three different phases as quiz paper, simulation and hardware. Each phase was an elimination phase having weightage of few marks. All the students of S. E and T. E had participated in this event. Three groups were selected as winners from each class.

Mini-Project Competition:

A mini-project competition/exhibition was held in the department of Electronics engineering in every semester. This competition was arranged on 29/4/17 and 01/11/17by the department to demonstrate the projects developed by third year students. In every semester three winners are declared for this contest and they get total Rs. 10000/-- prize money.

Industry Visits:

Every semester industrial visits are organized to create awareness among students about industrial environment and work ethics. Students also learn various technologies during visit. Following are photographs showing interaction carried out with industry persons during visit at Stratasys Ltd Bengaluru, CG-Corel Bengaluru etc.

Guest lectures arranged in the department in 2016-17:

Sr. No.	Gap	Topic	Speaker	Date	% of student present	Relevance of POs, PSOs
1	Technological advancement in VLSI Design	"Circuit Simulation Using Symica"	Dr. Satish Maheshwaram Dear R & D Marri Laxman Reddy Institute of Technology and Management, Hyderabad.	21st Jul 2016	75%	PSO2
2	Awareness of security and ethical issues	"Risk and Security issues in Ethical Hacking"	Mr. Udaykumar Lokhande CAPGEMINI Mumbai	1st Aug 2016	60.75%	PO8
3	Technological advancement in Low power VLSI Design	"Low Power VLSI Design"	Dr. Gaurav Kaushal Electronics and Communication Engineering National Institute of Technology Patna	22nd Aug 2016	78.48%	PO2
4	Awareness of necessity of ASIC Verification	"ASIC Verification"	Mr. Rohit Bhat Sr. Application Engineer,QUALCOMM,USA	24th Aug 2016	80%	PO12, PSO2
5	Knowledge of state space modulation	"Space Vector Modulation"	Dr. B. B. Pimple HOD Electrical dept. SPCE, Mumbai.	24th Aug 2016	75%	PO2
6	Knowledge of available opportunities in abroad.	"Education in abroad"	Pooja Welling Director, Mission Career	1st Sept 2016	75%	PO12
7	Use of modern TCAD tool for visualization of device parameters	"Introduction to Visual TCAD"	Prof. Reena Sonkusare Asso. Prof. EXTC Dept., SPIT, Mumbai	20th Sept 2016	92%	PO5
8	Knowledge of challenges and opportunities in neural signal recording	"Neural Signal Recording: Opportunities and Challenges"	Dr. Dipankar Pal Professor, Dept. of EEE, BITS-Pilani, K. K. Birla-Goa Campus.	24th Sept 2016	91%	PO2
9	Case studies of NN using MATLAB	"Applications of Neural Networks using MATLAB"	Prof. Pramod Kachare R.A.I.T., Nerul, Navi Mumbai	10th Oct 2016	65%	PO3
10	Awareness about recent trends in industrial automation.	"Recent practices in Industrial Automation"	Mr. Pravin Koli Asst. Gen. Manager L & T Ltd., Mumbai	1st Feb 2017	81.81%	PO1
11	Awareness about hydraulic system and its applications	"Hydraulics systems and its applications"	Dr. A. R. Kambekar H.O.D, Civil Engg. Dept., Sardar Patel College of Engineering, Mumbai	23rd Mar 2017	80%	PO1
12	Awareness of advances and recent trends in control system.	"Advances in Control System"	Prof. Abhishek Barve Assistant Prof.,V.J.T.I., Mumbai	13th Apr 2017	63.51%	PO1,PO2

Student Performance Enhancement Scheme (SPES):

Scheme referred as 'Student Performance Enhancement Scheme' (SPES) was implemented from academic year 2013-14 in Electronics Engineering Department which was continued this year as well. In this scheme, every student received hardware tools kit worth Rs. 3000/-- to enhance their hardware debugging capabilities. One kit comprises soldering iron, multi-meter, Wire stripper, bread board, bundle of connecting wire, logic probe, soldering wire and flux. Students carry same kit during day to day practical, mini projects, final year projects and practical examinations.

Final Year Placement/Internship/Scholarship Statistics in 2016-17:

Placement of Students Passed in May 2016	
Key	**Number**
Dream	28
Core	4
Accepted (Normal)	27
Total Placed	65
Total Students	69
Placement %	94.20%

Placement of Students Passed in May 2017	
Key	**Number**
Dream	30
Core	5
Accepted (Normal)	6
Total Placed	41
Total Students	48
Placement %	85.41%

Placement of Students Passed in May 2016		
Company	**Key**	**Number of Offers**
Citius Tech	Dream	08
MuSigma	Dream	04
KPMG	Dream	03
Dolat Capital	Dream	03
Fractal Analytics	Dream	02
Indus Valley Partners	Dream	02
Oracle	Dream	01
Deloitte	Dream	01
Credit Suisse	Dream	01
Icon Resource	Dream	01
Ariston Capital	Dream	01
Seclore	Dream	01
Siemens	Core	03
L&T Core	Core	01
Infosys	Normal	21
Cognizant	Normal	19

Placement of Students Passed in May 2017		
Company	**Key**	**Number of Offers**
Infosys	Normal	15
Capgemini	Normal	01
Citius Tech	Dream	05
L&T Core	Core	01
Deloitte	Dream	01
L&T Technologies	Dream	02
L&T Infotech	Dream	07
KPMG	Dream	03
MuSigma	Dream	01
Cognizant	Dream	07
Siemens	Core	04
IVP	Dream	01
Kotak	Dream	02
Atos	Normal	01
Credit Suisse	Dream	01
Infosys	Normal	15
Capgemini	Normal	01
Citius Tech	Dream	05

Profile of Students Passed in May 2016		
M.S.	28.98%	University of Berkley, Stanford Univ., Univ. of Michigan, Stevan's Inst. of Tech., Univ. of Colorado, Univ. of Pittsburgh, North Eastern, Univ. of Minnesota, S.P. Jain Inst., Univ. of Houstan, ESSEC Business School, Georgia Tech., Univ. of Florida, Cornegic Mellon Univ., Univ. of South California
Jobs	79.71%	98% Placed (43.07% Dream Placements)
Life Long Learning	52.17%	Students appeared for various competitive exams like GATE, GRE, TOFEL, CAT, CET, AFCAT, CMAT and NCFM
Professional Membership	11.59%	Students who were members of professional bodies like IEEE, IETE and ESA

Profile of Students Passing in May 2017		
M.S.	25%	NC State University, Georgia Institute of Technology, New York University, Clemson University, Penn State University, Purdue University, University of Minnesota, North Carolina State University, UT-Arlington, IIT'S, Stony Brook, University of Florida, NCSU University of Southern California
Jobs	74.64%	100% Placed (73.17% Dream)
Life Long Learning	80.28%	Students appeared for various competitive exams like GATE, GRE, TOFEL, CAT
Professional Membership	15%	Students who were members of professional bodies like IEEE, IETE and ESA

List of Topper in May 2015-2016:

Rank	Name of Studens	Class	Avg. CGPA
1	Kum. Ruchira Ghule	Second Year	9.78
2	Shri. Vidur Shah	Second Year	9.86
3	Shri. Akshay Parekh	Second Year	9.71
1	Shri. Chetan Jogi	Third Year	9.93
2	Shri. Pruful Prajapati	Third Year	9.71
3	Shri. Pranav Ghaisas	Third Year	9.61
1	Shri. Karan Shah	Final Year	9.32
2	Kum. Gauri Dalvi	Final Year	9.16
3	Shri. Jugal Gala	Final Year	9.14

Internship:

Student Name	Intern at Company
VIVEK VIJAYKUMAR SAKINALA	BARC
AKSHAY DNYANDEO JUNGHARE	
ANIKET ASHOK PATIL	
SEEMA BHOIR	
APURVA HARANE	
TRISHALA SANATH KUMAR PATKAR	
PRIYANKA ASHOK SHELAR	
ANUSHREE MHATRE	Siemens Ltd
NIKITA PAGAR	
CHETAN CHARUCHANDRA JOGI	
AMEY THOMBRE	
PRANAV SHARAD GHAISAS	A1 Fences Products Company Pvt. Ltd
JASKIRAT KAUR	
PRAFUL RAMESH PRAJAPATI	
PRANEET CHANDRAKANT BALA	
ANAND DHURIYA	L & T Electrical & Automation
AMIT KARANDE	
AMISHA KHIMANI	CHATUR IDEAS
VAISHNAV DANDGE	
PRANEET CHANDRAKANT BALA	Kaihatsu Techno Centre Pvt. Ltd
MOHIT KARANDIKAR	
NATASHA CHOUDHARY	WIKSATE
HIMANSHU PATHAK	S & T Workshop Byculla
PRAFUL RAMESH PRAJAPATI	Pirhoalpha Research Pvt. Ltd
PRANAV SHARAD GHAISAS	L & T Tech Services
AMEY THOMBRE	VISHAY SEMICONDUCTORS INDIA
AMEY THOMBRE	D-LINK INDIA PVT. LTD
AMEY THOMBRE	Research Internship Under Dr. Y.S. Rao

IEEE Activities in Electronics Engineering Department:

Sr. No	Event Organized	Event Date	Event Description	Usage	No of Students Attended
1	WIE National Leadership Conference (WIE-NLC)	14th -15th Oct 2016	Organized by IEEE Bombay Section at S.P.I.T.	Management Skill	40
2	Opportunities for WIE	4th Aug 2016	Lee Lee Stogner PMP IEEE IoT Initiative USA at SPIT	Awareness of opportunities in IoT	30
3	**Global Internship Opportunities For IEEE Members** at Sardar Patel Institute of Technology	4th Aug 2016	Lee Lee Stogner PMP IEEE IoT Initiative USA at S.P.I.T	Awareness of internship opportunities in IoT	35

IEDC Activities in Electronics Engineering Department:

Sr. No	Event Organized	Event Date	Event Description	Usage	No of Students Attended
1	Introduction to Patents and Prior Art Search	31st March 2017	Gaurav Sawant, Senior Manager, Intellectual Property Services Group Clarivate Analytics (formerly Thomson Reuters)	Patenting Skill	30
2	Patent Drafting Workshop	25th -27th Apr 2016	Abhishek Pandurangi and Parvez Kudroli of Khuran & Khurana LLP Mumbai	Patenting Skill	25
3	Company Registration workshop	26th Mar 2017	by Nilakshi Marathe	Business Skill	20

ESA Activities in Electronics Engineering Department:

Sr. No.	Event Organized	Event Date	Event Description	Usage	No. of Student Attended
1	Monsoon Trek	13th Aug 2016	The trek was organised to Visapur fort.	Bonding/fun activity	100
2	Circuit Simulation Workshop	2nd Nov 2016	Introduction to open source tools for cicuit simulation like LTSpice	Allow students to design and simulate their own circuits	30
3	Diya Painting for Charity	21st Oct 2016	150 diyas were painted and gifted to underprivileged children to light up their homes for Diwali.	Charity activity	100
4	Project Internship	8th Oct 2016	Second year students were allowed to work on the projects of third year students to help them gain experience and develop their own ideas for future projects	Enable students to get non-compulsory but beneficial practical experience	25
5	Patent Drafting Workshop	30th Nov 2016	Information was given on how to draft patents, apply for them and the channels through which a patent can be filed for	Inform about patent drafting	80
6	Photography Competition	4th Oct 2016	A mosaic photography competition	Encourage creative talents	50
7	Project Competition	17th Nov 2016	Display and present technical projects	Appreciate students' efforts and encourage further work	80
8	Branch T-Shirt Competition	15th Jan 2017	Competition for designing the T-shirt of Electronics Department	Encourage creative talents	120
9	Seminar on Higher Education in Germany	6th Jan 2017	Talk on master's and employment opportunities in Germany	Inform about study options in countries other than USA	30

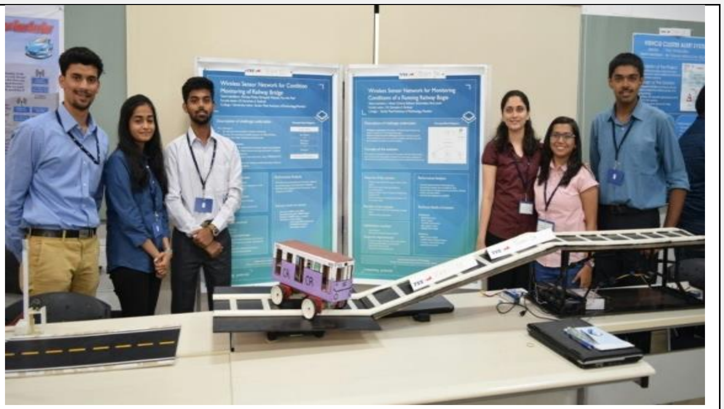
Student's Representation in Various College Level Committees:

Representation in the Students' council

Mr. Manas Sardar (General Secretary) **Mr. Parimal Gosavi (Cultural Secretary)**

Committee	Student Name
Students Council	Manas Sardar (General Secretary), Parimal Gosavi (Cultural Secretary)
IETE coordinators	Devanshi Bhatt (Chairperson), Akshay Parekh (Technical Head), Alwin Babu (Finance Head)
IEEE coordinators	Saish Desai (Chairperson), Saniya Santosh (Finance Head), Ankesh Patil (Event Head), Ninad Chitnis (Magazine Head)
ESA coordinators	Amol Gowalkar (Secretary), Meet Patel (Creative Head), Mrunal Nerkar (Magazine), Neha Ashar (Magazine Head), Aksh Bangera (Finance Head), Siddhesh Patil (Admin Head),Moulik Naredi (PR Head), Ninad Chitnis (Technical Head), Prutha Atre (Event Head)
ROTRACT	Cristina Varghese (President), Aarohi Karnik (Joint Secretory) , Utkarsha Bondre (Director of Digital Communication), Soumyaa Passari (Director of International Service)
Spark	Soumyaa Passari (Reports), Alwin Babu, Manaswi Koudinya, Esha Dongre, Arijit Ghosh, Mrunal Nerkar

Student's Achievements in 2016 -17:

	
Mr. Shreyash Palande Represented University of Mumbai in All India inter university yoga tournament 2014, 2015, 2016, 2017	**Fourteen projects from Electronics Engineering Department were selected by ARM DESIGN CHALLENGE 2016-17. Two groups presenting project on 'Condition monitoring of railways' and 'Railway track crack detection'**

Participated in Transform Maharashtra Finale Event to demonstrate the projects developed.

Participation in ABU ROBOCON held at MIT Pune between 2 to 5 March 2017

First Prize Sign language interpreter at IET project competition at SPCE, Mumbai Held on 22nd April 2017.

Second prize Portable 12- Lead ECG Device and Portable solar Power Generating System (BE Etrx), Biotelemetry system (TE Etrx), Wireless sensor n/w for Railwavs (TE Etrx) : IET project competition at SPCE, Mumbai Held on 22nd April 2017.

Design of IOT based Intelligent AC Drive System using Space Vector Algorithm (BE Etrx), FIS based autonomous navigation system (BE Etrx) , Lab VIEW based real time Bio-Telemetry system for healthcare (BE Etrx) Held on 22nd April 2017.

Mr. Mayur Sanap Secured 1st position in the National Level Project Showcase 2017 organized by Vidyavardhini College of Engineering and Technology.

- **Secured 1st position in the National Level Technical Paper Presentation organized by Rajiv Gandhi Institute of Technology.**
- **Secured 1st position in the State Level Technical Paper Presentation organized by Dwarkadas J. Sanghvi College of Engineering.**
- **Secured 3rd position in the Project Showcase Competition organized by Sardar Patel Institute of Technology.**
- **Secured 3rd position in the State Level Technical Paper Presentation organized by The Institution of Electronics and Telecommunication Engineers.**
- **Secured 3rd position in the State Level Technical Paper Presentation organized by Sardar Patel Institute of Technology.**
- **Best Presentation Award in the Project Showcase Competition organized by Sardar Patel Institute of Technology.**
- **Participated in the National Level Technical Paper Presentation organized by Rajiv Gandhi Institute of Technology.**
- **Participated in the National Level Technical Paper Presentation organized by SIES Graduate School of Technology.**
- **Participated in the National Level Technical Paper Presentation organized by Shah & Anchor Kutchhi Engineering Collage.**
- **Participated in the National Level Project Competition organized by Datta Meghe Collage of Engineering**

Mr. Chetan Jogi received corporate sponsored award for the outgoing student with the highest CGPI at S.P.I.T. The award was sponsored by Citius Tech Inc. (Rs. 25,000/--)

National Project Award at QuEST Ingenium, 2016, Bengaluru. Team: Shashank Rane, Kanchi Poddar, Kritika Sabharwal

Ranked 1st in e-Yantra Competition at IIT Bombay, 2016-17 Team: Chirag Shah, Srijal Poojari, Shoaib Mansoori, Aditya Nair

Experts in Each Research

1. VLSI and Embedded Systems
- Dr. S. S. Rathod
- Prof. Narendra Bhagat
- Prof. P. V. Kasambe
- Prof. Manisha Bansode

2. Instrumentation and Control
- Dr. S. S. Rathod
- Dr. R. G. Sutar
- Prof. P. V. Kasambe
- Prof. G. T. Haldankar
- Prof. Payal Shah

3. DSP and Image Processing
- Prof. K. T. Talele
- Prof. Priya Deshpande

4. Communication and Networking
- Dr. D. C. Karia
- Prof. Manisha Bansode

Research Topics Offered by the Department:

1. Electronic Circuit Analysis and Design
2. Semiconductor Device Modeling
3. Novel Semiconductor Devices
4. Low Power Circuit Design
4. RADHARD Circuit Design
5. Carbon Nanotube FET and Circuit Design
6. CMOS analog and Mixed Signal Design
7. MEMS
8. ASIC Verification
9. FPGA/CPLD based design
10. Design of Embedded System
11. Labview Based Virtual Instrumentation
12. Biomedical Instrumentation
13. Antenna Design
14. Design of communication circuits
15. Digital Signal Processing
16. Image Processing

Final Year Projects in 2016-17:

S.N	Project Title	Project Guide
1	IOT based E-Coli Monitoring	Dr. S. S. Rathod
2	Design and Analysis of MEMS Resonators	
3	Sign Language Recognition System	
4	Design and Development of Farm Automation System using LabView	Dr. D. C. Karia
5	Smart Agricultural Monitoring System	
6	LabView based Real-Time Biotelemetry System for Healthcare.	
7	IOT based Portable 12-Lead ECG Monitor	Dr. R. G. Sutar
8	Automatic PCB Drilling Machine	
9	Automatic Coil Winding Machine	
10	Development of Smart Laboratory Management System	Prof. P. V. Kasambe
11	Development of Smart Library Management System	
12	Automated PCB Fabrication using PLC	
13	A Neural Network Based Autonomous Navigation System using MATLAB	Prof. G. T. Haldankar
14	Design and Development of Smart Drive System	
15	Anti Theft Tracking System for Automobil	
16	Current Mode Communication System	Prof. M. R. Bansode
17	Bus Estimation System	
18	Portable Solar Power Generating System	Prof. N. A. Bhagat
19	Self Balancing Scooter	
20	Multimodel Efficient Grid Connected Power Generator	Prof. P. H. Shah
21	Machine Vision based Object Sorting using LabView	
22	Mental Stress Detection	Prof. K. T. Talele
23	Intelligent Patient Monitoring and Management System	
24	Text Independent Speaker Recognition System	

Sponsored Projects in 2016-17:

S.N.	Project Title	Mentor	Funding Agency
1	Determination of water quality parameters	Dr. Surendra Rathod	University of Mumbai
2	Atmospheric Peltier Water Generator	Prof. N. A. Bhagat	University of Mumbai

Cultural Events UDAAN

Sports Fest SPRIT

Technical Fest MATRIX

Contact

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Electronics
Insight
Annually

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