

Our Inspiration



Hon. Shri Prithvirajji Deshmukh

Chairman, SES



Smt. Vrushali Deshmukh

Founder Secretary, SES



Dr. Manjusha Deshmukh

Principal, SCOE

About College



VISION: “To Become Centre of Excellence in Engineering Education and Research.”

MISSION: “To Educate Students to become quality technocrats for taking up challenges in all Facets of Life.”

About Department

VISION: “To make students capable to contribute in development of society through research.”

MISSION: “To impart quality education to train students in emerging technologies in Electronics and Telecommunication Engineering”



Prof. Sheetal Bukkawar
H.O.D.

From the HOD's Desk:

The EXTC dept. is always striving to achieve academic excellence which can help our student to become all-rounder and represent themselves globally. We encourage our students for higher studies like MTech and MS. We conduct attitude test, activities that can help them to boost their confidence, Leadership qualities and hidden talents. We also organize technical workshops, Seminars and competition which help them to bridge the gap between academics and industry.

We also support our faculties in their overall development by encouraging them to attend and organize various STTP and Workshop that can hone their interpersonal as well as technical skills.

Program Educational Objectives (PEO)-

Graduates will,

- Apply the knowledge of mathematics and science to identify, formulate and define engineering problems in the field of Electronics and Telecommunication Engineering.
- Contribute to the needs of the society in solving technical problems using electronics & communication engineering principles, tools, and practices.
- Demonstrate professionalism, ethical attitude, communication skills and teamwork to adapt current trends by engaging in lifelong learning.
- Impart analytic and logical skills to initiate and develop innovative ideas for R &D, industry and multidisciplinary domain.
- Excel in higher education and succeed in technical profession exhibiting global competitiveness.
- Design systems, components or processes that meet specified needs with appropriate considerations for public health & safety, cultural, societal and environmental considerations.

Program Outcomes (PO)-

At the end of the Program, a student will be able to:

- Engage in life-long learning and an understanding of the need to keep up with current developments in the specific field of practice
- Apply knowledge of mathematics, science and engineering as appropriate to the field of electronics & telecommunication engineering practice.
- Understand of the effects of the engineering solutions in a global, economic, environmental and societal context.
- Design systems for applications based on the acquired knowledge to solve real time requirements.
- Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex problems.
- Demonstrates the knowledge of theoretical & practical aspects of signal processing to meet desired needs within realistic constraints such as economic, environmental, social, and ethical, health and safety.
- Design, simulate and fabricate electronic and communication systems, components, devices as well as to design and simulate the analog and digital processes of physical world
- Acquire the communication skills necessary to interact effectively in multidisciplinary teams.
- Participate and succeed in competitive examinations or seek employment in the industry.
- Demonstrate leadership, managerial and entrepreneurship skills
- Understand impact of engineering solutions on the society with awareness of project management and finance related issues.

Departmental Events

“PCB Designing Workshop”

(4th August, 2017.)

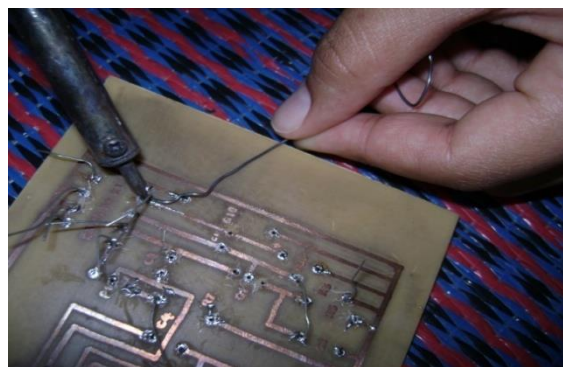


IETE Students Forum in association with Electronics and Telecommunication Student Association (ETSA) had organized one day Workshop on “PCB designing” on 4th August, 2017. The workshop was aimed to provide knowledge about circuit layout designing using software “Proteus Professional 8” and PCB designing so that students can make projects on their own.



As per schedule of EXTC Department, event started at 10.00 am with

the arrival of Honourable chief guests Dr. Sudhakar Shinde and Prof. Mansi Subhedarinand in presence of respected Principal Dr. Manjusha Deshmukh, respected HOD Prof. Sheetal Bukkavar, and faculty co-ordinators Prof. Vijay Kapure and Prof. Pallavi Kharat and the participants of second year students from EXTC Engineering department.



The function began with the lightening of lamp followed by saraswati pooja. After that, Dr. Manjusha Deshmukh graced the function with her inspiring words, followed by the inspirational speech by, our chief guests Dr. Sudhakar Mande and Prof. Mansi Subhedar. The chairman of IETE Students Forum Mr. Abhijit Patil expressed his views and ideas.

The workshop started with the brief explanation of the electronic components used for designing the circuit “LDR controlled LED” was given to the students. After that, software session for designing the soft copy of the PCB layout of the

abovementioned circuit was started. The students got brief introduction about the software “Proteus Professional 8” which is used for designing the circuit layout.

The hardware session gave the student’s hands on experience of making the Printed Circuit Board by using “Phenix Etching machinery”. The PCB layout was printed on the copper plate and then it was used for mounting and soldering the components of the “LDR controlled LED” circuit.

“Teacher’s Day Celebrations”

(14th September, 2017)



As per schedule of EXTC Department, event started at 2 pm in presence of respected Principal Dr.Manjusha Deshmukh, HOD Prof. Sheetal Bukkawar, and faculty co-ordinators Prof. Neha Mahajan and Prof. Pallavi Kharatand the students of EXTC

Department, all the teaching and non-teaching faculties.



Event started with the speech by Principal and Faculty co-ordinators of ETSA followed by formal Induction of ETSA Committee. Induction concluded at 4:00 pm. Games were organized for the faculties and prizes were given to the winners. It was a fun filled event. The event concluded with short speech by HOD and Group photo of new ETSA Committee with faculty co-ordinators and HOD.

Workshop on “Design and analysis of Antenna and microwave devices using HFSS”

(3rd-5th January, 2018)

Electronics and Telecommunication has organised 3-days workshop on “Design and Analysis of Antenna and Microwave devices using HFSS” on 3rd-5th January, 2018.



The threedays' National workshop on "Design and Analysis of Antennas and Microwave Passive Devices using HFSS" was inaugurated in the seminar hall in the presence of Principal Dr. Manjusha Deshmukh. The Speakers Prof. Amit Naik and Prof. Aniket Jangam were welcomed with a token of



appreciation.

The First day session was conducted by Prof. Amit Naik & Prof. Aniket Jangam, in which they have covered various fundamentals of antenna

designing. On second day of the workshop, the Inset feed and Probe feed antenna designing was practiced on the software with some additional features in the existing software of HFSS. On third day of the workshop, Prof. Aniket explained the concept of waveguides and filters with a theory. Later on hands-on was carried out on HFSS software. The Day 3 Session was ended by one to one discussion between the Participants and the Speakers of the workshop. The workshop came to an end by Certificates distribution to the participants and vote of thanks.

Expert lecture on "Future Upcoming Mobile Technologies"

(23rd September 2017)

A guest lecture on Future Technologies was conducted for the B.E students of both A & B division on 23rd September, 2017. The lecture started at 2.00 pm after a brief introductory speech by Prof. Sheetal Bukkavar, H.O.D, EXTC.



The speaker commenced the session by interacting with the students about the current trends in Networking and communication. The topics that were covered were 1G, 2G, 3G, 4G and their impact in the field of communication. Discussion was held in which students were appraised about the upcoming technologies in future. In the Latter half of lecture, some useful concepts related to Networking and its certification was also discussed. Around 4 pm ,Session ended with vote of thanks.

International seminar on **“Artificial Intelligence in** **wireless Networks “**

(11th October2017)

The seminar on “Artificial Intelligence in wireless Networks ” was conducted by Guest speaker Mr. Peter Leung, Australia ,Technical Leader, CISCO Systems Inc. Asia Pacific Region. The Guest speaker discussed about Artificial intelligence is all the rage these days. There’s broad consensus that AI is the next game-changing technology, poised to impact virtually every aspect of our lives in the coming years, from transportation to medical care to financial services.



An area where AI is already showing enormous value is wireless networking. The use of machine learning can transform WLANs into neural networks that simplify operations, expedite troubleshooting and provide unprecedented visibility into the user experience.



There is a good reason to embrace AI in their wireless strategy. Wireless networking is at an inflection point whereby the traditional way of deploying, operating and managing WiFi networks will no longer suffice. Three fundamental market transitions occurring in wireless networking are making AI indispensable.

Seminar on “Arduino and Raspberry Programming.”

(31st July 2017)

The seminar on application Arduino and Raspberry Programming was conducted by R/D Head Mr. Santosh Kamble for TE EXTC students. In this seminar he discussed various fundamentals of Arduino and Raspberry. He also discussed various types of embedded system and their scope in Industry. In this seminar theory session and practical session on Arduino and Raspberry were conducted. Doubts of students on the same were clarified by the speaker.

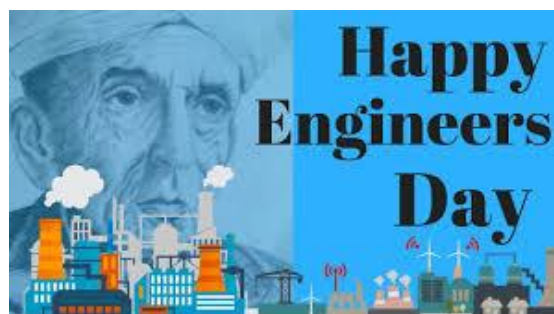


“Engineer’s Day”

(15th September, 2017)

Electronics and Telecommunication Student Association has organized “Engineer’s Day” on 15th September, 2017. As per schedule of EXTC Department, event started at 11:30 am in presence of respected HOD Prof. Sheetal Bukkavar,

and faculty co-ordinators Prof. Neha Mahajan, Prof. Pallavi Kharat and the entire faculties and the students of EXTC Department.



The Engineering Community across India celebrates Engineers Day on 15th September every year as a tribute to the greatest Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya. Role of Engineers in developing country like India is very crucial. In this event technical events were organized as well as technical quizzes were also carried out. All the students of EXTC department enthusiastically participated in the events. Apart from the students, faculty of the EXTC department actively participated in the events. The Engineer’s Day event was successfully celebrated.



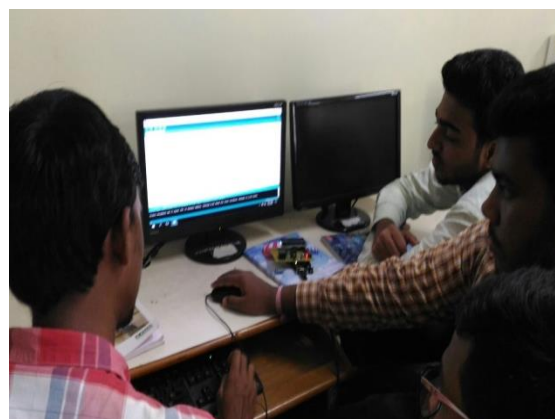
Workshop on Arduino programming

(1st August - 3rd August 2017)

E&TC Dept. had organized a 3-day workshop on Arduino programming from 31st July 2017 to 3rd August 2017 for TE students (A & B) division. The workshop started with brief introduction of General purpose microprocessor based system, Micro-controller basics. Further discussed the topics like ARDUINO Boards and ARDUINOIDE.



In the latter section Arduino programming basics were discussed and explained with simple programs like LEDs blinking, running LEDs, buzzer interfacing, relay interfacing, switch interfacing with buzzer, Switch interfacing with LEDs and buzzer IR sensor interfacing with buzzer, LED brightness control using PWM, 8 x 8 led matrix display and temperature on off Controller with mobile interfacing using Bluetooth. The Workshop ended with Practice and Q-A Session.



Workshop on “Solar System Design”

(21st July 2017)

One day workshop on Solar System Design at Nashik Ambad conducted for second year students on 21st July 2017. The Speaker of the workshop was Mr. Uday Rakib. In this workshop, various topics like selection of battery and calculation of solar system were also discussed. Also demonstration was given to students on solar pump, solar street light, solar heater etc. In this workshop importance on utilisation of solar energy was also discussed with the students. Faculty members who coordinated and attended this workshop were Prof. Nilesh Patil, Prof. Sarita Kale and Prof. Rajashri Narwade.



Workshop on “Leadership Program”

(04th November, 2017)

Workshop on “Leadership Program” for Second Year Students was conducted by Prof. Rahul Kambale From Amity University Mumbai. Faculty coordinators were Prof. Pallavi Kharat and Prof. Nilesh Patil. Half day training Programme on transformational leadership was also conducted. Students gained information about leadership style and abilities.



“Coliseum”

(06th October, 2017)

The event coliseum is the combination of the Aptitude Test, Group Discussion, Group Interview and Personal Interview.

As per schedule event started at 10:30 am in presence of respected HOD Prof. Sheetal Bukkavar, and faculty coordinators Prof. Neha Mahajan, Prof. Pallavi Kharat, prof. Alka Purohit and the entire EXTC faculty and the students of EXTC Department.

Event was kick started with aptitude test for all the students of SE, TE and BE. It was followed by group discussion of all the students.

The basic idea of this event is to give some knowledge about G.D, G.I and P.I to S.E, T.E and B.E students, after the group discussion the selected students are appeared for the group and personal interview. At the end of the event winners were given the Appreciation certificate and the event was successfully executed.



Industrial Visit

(28th Dec 2017 - 3rd Jan 2018)

EXTC department had organized industrial visit to Jodhpur-Jaipur-Rajasthan 28th December 2017 - 3rd January 2018.

Name of Industry: - BSNL, Rajasthan KhojKhabar Printing Industry

Venue: - Jaipur, Jodhpur and Ranthambore

Class:- BE & TE (E & TC)

Number of Students:- 22

Staff coordinators: - Prof. Vijay Kapure,

Date: - 28th December 2017-3rd January 2018

BSNL (“Bharat Sanchar Nigam Limited”)

(29th December’17)

In this visit 22 students of TE and BE visited BSNL in Jodhpur, Rajasthan State. Students of Saraswati College of Engineering visited “Bharat Sanchar Nigam Limited” to study about the detailed system of broadband services and telephonic communication which is in Sardarpura. As per schedule 22 students visited BSNL office at 10.00 am. They mainly visited these three labs:



OCB (Organ control based) - OCB-283 is digital switching system which supports a variety of communication needs like basic telephony, ISDN, etc. This system has been developed by CIT ALCATEL of France and therefore has many similarities to its predecessor E-10B (also known as OCB-181 in France).

Main distribution frame (MDF)- The switching equipment, common to all the subscribers of the area is located in an exchange. To make possible for a subscriber to communicate with remaining subscribers, telephone of each and every subscriber must be connected to the exchange. The function of MDF is to provide a means for connecting side is terminated at OCB where the switching takes place.



SDH(Synchronous Digital Hierarchy)-

It is an international standard networking principle and a multiplexing method. The name of hierarchy has been taken from the multiplexing method which is synchronous by nature. The evolution of this system will assist in improving the economy of operability and reliability of a digital network.



Rajasthan KhojKhabar **Printing Industry**

In this visit 22 students of TE and BE visited Rajasthan KhojKhabar Printing

Industry in Jodhpur, Rajasthan State. Students of Saraswati College of Engineering visited the printing press of “Rajasthan KhojKhabar Newspaper” to know how newspaper editing and printing takes place using image processing and colour mixing techniques.



As per schedule 22 students visited the printing press at 10.00 pm as printing takes place at night only. First everyone entered the editing department where the pages of the newspapers are well laid-out and designed. After stories have been edited, the editor and other sub editors will sit in an editorial conference to determine what goes inside the paper for the day. Then, each sub editor is expected to plan their pages if possible. After the planning, the editorial department forwards the already planned pages to the graphic section where the dummy sheets are transformed to the meaningful digital form. At the pre-press, text, pictures, cutline, graphics, and

graphical illustrations as well as colour are put together to form the newspaper.

The designed pages are taken to the lithographic section where the stories and the advert are registered on the plate. The plate is an aluminium-like iron sheet in the size of the newspaper (A3) that is used to run the printing of the newspaper on the printing machine after the information has been registered on the plate. A CTP machine (Computer to Plate) registers the already designed information at the pre-press on the plate. It is the plate at the lithographic section that is fixed on the machine to run impression. The information of same page is registered on four different plates representing four subtractive colours namely yellow, magenta, cyan and black. All colour shades can be created by the combination of these four colours. This type of printing is known as offset lithography. These four different plates are then fitted on the colour impression machine.

The impression stage is where the printing are run in thousands of copies to be circulated all over. At this stage, the plates are hung on the printing machine and the numerous copies are printed out on the continuous paper. This paper is then folded by folders and by cutters used to separate out the single newspaper in perfectly folded form. The

speed of printing was very high as it was printing 10 to 15 copies of newspaper per second.



The system is not fully automatic as it uses manpower for fitting the plates on the impression machine. Also, the intensity of the colour is adjusted manually by seeing the printed copies which led to wastage of copies at the beginning. Daily 200 to 300 copies get wasted for adjusting the colour intensities of cyan, yellow, magenta and black. So, students suggested automatic fitting of plates and adjustment of colour intensities. Also, the collection of newspaper copies and its packaging is done there by labours. Due to the high speed of printing more labour requires for the collection and packaging. So, students suggested the use of automated machines for this purpose.

The press workers took a picture of all students to deliver the news of the industrial visit by Saraswati College of Engineering.

Industrial Visit

(21st July 2017)

EXTC department had organized industrial visit to Nasik on 21st July 2017.

Name of Industry: - Copper Track Industry

Venue: - Nasik

Class: - SE (E &TC)

Number of Students: - 34

Staff coordinators: - Prof. Nilesh Patil, Prof. Rajashri Narwade, Prof. Sarita Kale

Date: - 21st July 2017



One day Industry Visit at Nashik Ambad conducted for second year students on 21st July 2017. In this industry visit students witnessed how to do PCB Designing, single side and double side PCB, and how to prepare transformers, chargers, aptamers, SMPS, Inverter. Students also visited different sections of industry like R/D section, Assembly section, Production Section etc. After visiting the industry students gained idea on Importance of theory and practical and

how to apply the same to develop products based on market needs.

Workshop on “Evoke your femininity: Enhance your flexibility”

(2nd January 2018)

Workshop entitled “Evoke your femininity: Enhance your flexibility” was organized to boost the health and fitness of all the ladies staff of Saraswati college of engineering. The event was inaugurated by HOD of Electronics and Telecommunication department, Prof. Sheetal Bukkavar.



The workshop was conducted by Dr. Priyadarshini Jangam, Nutritionist as well as certified Zumba Instructor. Two sessions were conducted. First session was started by an interactive lecture on Mind and Fitness activity followed question queries and doubt solving round. She gave a deep insight on health and fitness answered all queries related to fitness.

Second session was about Zumba session to increase flexibility.

The workshop was concluded by Prof. Suchitra Mujumdar by expressing vote of thanks on behalf of Saraswati college of Engineering to the guest of honour Dr. Priyadarshini which was followed by felicitation with token of appreciation by HOD, Prof. Sheetal Bukkavar.

Students Achievements

Result At Glance

List of Toppers for Academic Year- (NOV-DEC2017)

S.E. SEM-III

Sr. No	Name	SGPI
1.	MandalAnkit	8.92
2.	Gowda Ramakrishna	8.73
3.	Gupta Sandhya	8.15

T.E. SEM-V

Sr. No	Name	SGPI
1	PhadkeAmogh	7.93
2	Kadam Sampada	7.81
3	DudamKomal	7.63

Heartiest congratulations to our Toppers as well as placed students. “God bless you and we hope that you make us proud in the future as well”.

Placement Details

We are proud and glad to notify that our following final year students have been placed.

Date of Placement	Placed in	Branch	Student Name	Package
05-01-2017	MINDCRAFT	EXTC	Kailash Garbidi	3.00 lac
05-01-2017	MINDCRAFT	EXTC	Suchitra Naregal	3.00 lac

Departmental Achievements

we have made memorandum of understanding (MoU) with

1. Saitronics industry , karad



2. Copper track industry, nashik



COPPER TRACK INDUSTRIES
 PLOT NO. : M-76 , MIDC , AMBAD , NASIK-422 010
 TEL. : 0253-2381244 / 07350591415 / 9225126972
 E-mail : coppertrack@rediffmail.com

Faculty Achievements

Publication in International Journals/Conferences

Name Of Publisher/presenter	Publications
Prof. Sheetal Bhujade	1. Sheetal Bhujade, Monali Solapure, "Design and optimization of Microstrip patch and Monopole antenna with Defected Ground Structure (DGS)", Proceedings of the International Conference on Inventive Computing and Informatics (ICICI 2017) IEEE Xplore Compliant - Part Number: CFP17L34-ART, ISBN: 978-1-5386-4031-9, 23-24 November, Coimbatore, Tamilnadu
Prof. Vanshree Deshpande	1. "VANET based Distributed Platoon System", Proceedings on Springer, ICCASP 3rd International Conference on Computing, Communication and Signal Processing, 26 & 27 Jan 2018.

- Prof. Vijay Kapure Co-ordinated 3-day workshop on **"Design and analysis of Antenna and microwave devices using HFSS "** from 3rd Jan -5th Jan 2018. The eminent speakers of the workshop were Mr. Aniket Jangam and Mr. Amit Naik. All faculties from EXTC department attended the workshop.
- Prof. Umesh Pinjarkar has Attended two week AICTE Sponsored FDP on **"Ethics and Moral Values"** 5th Dec-18th Dec 2017 at KNCOE, Pune.
- Prof. Sheetal Bhujade, Prof. Mandeep Kaur, Prof. Pallavi Kharat, Prof. Bhoomi Patil, Prof. Rajashri Narwade, Prof. Sarita Kale, Prof. Nilesh Patil, Prof. Neha Mahajan and Prof. Sneha Burnase attended 3-day Workshop **"Outcome based education and accreditation process"** 18th Dec to 20th Dec 17.
- Prof. Megha Pande Co-ordinated **"International seminar on Artificial Intelligence in wireless Networks"** on 11th Oct 2017, at SCOE, Kharghar. The speaker of the day was Mr. Peter Leung, Australia, Technical Leader, CISCO Systems Inc. Asia Pacific Region. Prof. Pallavi Kharat, Prof. Bhoomi Patil, Prof. Nilesh Patil, Prof. Rajashri Narwade, Prof. Sarita Kale, Prof. Sheetal Bhujade and Prof. Neha Mahajan attended the seminar.
- Prof. Nilesh Patil attended 3-day workshop on **"Arduino Programming"** 1st August to 3rd August 17, conducted by SCOE, Kharghar and he attended a 1-Day workshop on **"Design of Solar System "** on 21st July 17 at CPT Nashik. He also attended **"NAAC and NBA Workshop"** conducted by FE-Department SCOE, Kharghar.
- Prof. Vijay Kapure has attended Seminar in **"Numerical Techniques in Engineering"** on 11th November 2017 at SPIT, Andheri and also attended a seminar on **"Research Techniques in Engineering "** at SPIT, Andheri.

Other Achievements

- Submitted one minor research project to university of Mumbai. Project Titled: **“Design and analysis of an Ultra-Wide Band Fractal Monopole Antenna** “by Prof. Sheetal Bukkavar.
- Submitted one minor research project to university of Mumbai. Titled: **“Design and analysis W-slot Microstrip Patch Antenna”** by Prof. Naresh Kumar Joshi.
- Submitted one minor research project to university of Mumbai. Titled: **“Analysis & comparisons of various methods for hyperspectral image dimensionality reduction”** by Prof. Sneha Burnase.