



‘ येथे बहुतांचे हित ’

MARATHWADA MITRA MANDAL'S
COLLEGE OF ENGINEERING

**DEPARTMENT OF ELECTRONICS AND
TELECOMMUNICATION ENGINEERING**

IMPULSE

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MESSAGE FROM HOD



DR. A. S. BHATLAWANDE (SOLANKE)
HEAD OF DEPARTMENT
ELECTRONICS AND TELECOMMUNICATION
ENGINEERING

Dear Friends,

It gives me immense pleasure to present the latest issue of the Department of Electronics and Telecommunication Engineering Newsletter at MMCOE. This edition reflects the dedication and creativity of our faculty and students who have worked tirelessly to showcase their achievements and departmental activities. At MMCOE, we are committed to providing an education that empowers students to contribute meaningfully to society. Our department emphasizes holistic development through strong industry-institute interaction, innovation, and continuous learning.

I extend my heartfelt appreciation to all contributors and wish continued success to our students and faculty. May this newsletter continue to inspire and celebrate our collective progress.

We take pride in fostering a learning ecosystem that encourages curiosity, creativity, and critical thinking. Through hands-on training, multidisciplinary exposure, and co-curricular activities, we aim to shape our students into confident and capable engineers ready to face global challenges.

I extend my heartfelt appreciation to all faculty members, students, and contributors who made this newsletter possible. Let us continue to strive for excellence and uphold the legacy of the department with renewed energy and commitment.

Marathwada Mitra Mandal's **COLLEGE OF ENGINEERING** Karvenagar, Pune-52

Department of Electronics & Telecommunication Engineering

Vision: To achieve excellence in Electronics and Telecommunication Engineering by creating competent and skilled graduates for the welfare of society.

Mission:

- Facilitate students with necessary academic preparations in Electronics and Telecommunication Engineering for higher pursuits
- Inculcate team spirit through technical & extension activities
- Promote creativity, innovation and research culture in faculty & students for meeting global challenges
- Create Ethical and Social Professionals in the field of Electronics and Telecommunication Engineering

Program Specific Outcomes (PSOs):

Graduates of the program will be able to,

- PSO1: Design and develop Embedded systems to provide solutions in the field of Electronics and Telecommunication Engineering.
- PSO2: Apply and analyse Communication Engineering fundamentals in the field of wired and wireless communications and networking.
- PSO3: Apply cutting-edge technology in Robotics and Internet of Things.

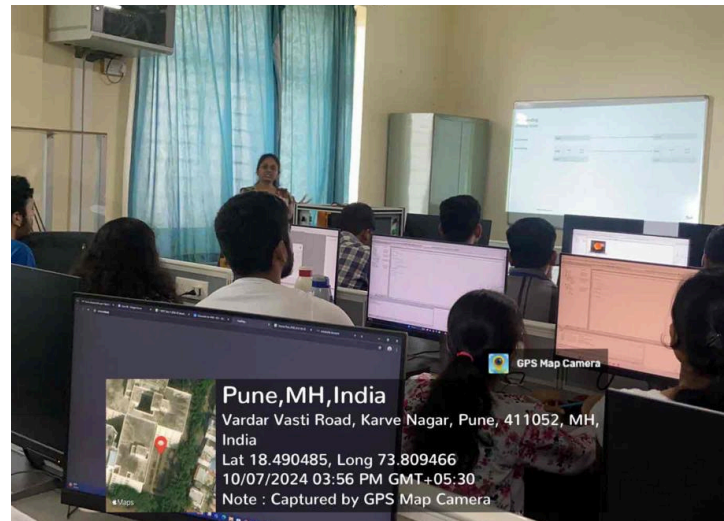
WORKSHOPS ORGANISED BY DEPARTMENT

- Workshop on “Industry 4.0” for faculty members in collaboration with Digitech Engineers from 10th to 12th June 2024
- Workshop on “VLSI Design using Verilog HDL” organised by Ms. M. R. Pangoankar from 1st July to 30th September 2024. the workshop was conducted by Mr. Jeevan P. from CoreEL Technologies for TE E&TC students.
- Mr. Vivek Pawar held a workshop on “Embedded Systems” started from 12th August 2024 for TE and BE E&TC students.



WORKSHOPS ORGANISED BY DEPARTMENT

- Dr. A. B. Kanwade organised a skill development program on “Networking and Security” from 12th September 2024 for TE E&TC students.
- A skill development program titled “B&R- PLC and Automation” was held by Ms. Soumya Kudgunti from 12th September for BE E&TC students



GUEST LECTURES

- Expert Lecture by Mr. Abhay Kulkarni, Bedrock Microwaves, Pune, on “Opportunities and applications of Microwaves” on 23rd July 2024 for TE and BE EnTC students.
- Expert Lecture by Mr. Pranav Dharmadhikari, ASIC Verification Engineer, CISCO Systems, SanJose, California on “VLSI D&T” on 16th August 2024 for BE EnTC students.
- Expert Lecture by Mr. Jeevan P Urs, Application Engineer, CoreEL Technologies Pvt. Ltd., Bangalore on “Skill Development Course on VLSI Design using Verilog HDL” on 22nd August 2024 for TE and BE EnTC students.



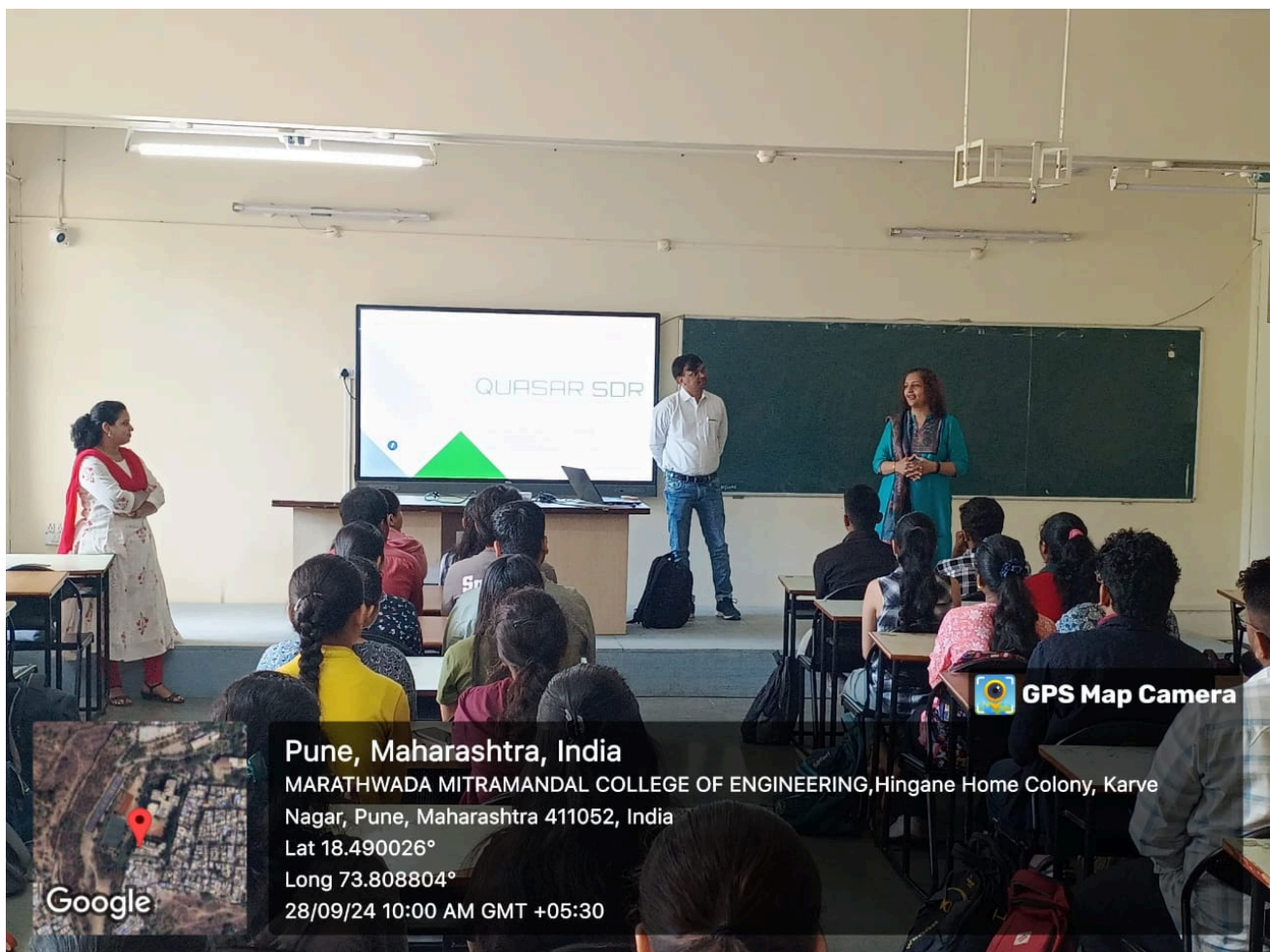
GUEST LECTURES

- Expert Lecture by Mr. Sidheshwar Bagbande, Mastercard, Pune on “Computer Networks and Network Security Advances” on 26th August 2024 for TE EnTC students.
- Expert Lecture by Mr. Pradip Magar on “Career through Electronics Circuits” on 21st September 2024 for SE EnTC students.
- Expert Lecture by Mr. Vivek Pawar, CEO, VidyaLeap Pune & Founder Sankalp Semiconductor, on “From Theory to Practice: Digital Circuits in Modern Industrial Applications” on 27th September 2024 for SE EnTC students.



GUEST LECTURES

- Expert Lecture by Mr. Purushottam Chilveri, RF Engineer, Cyronics Instruments Pvt. Ltd., on “Recent Trends and Job Opportunities in Communication and Signal Processing Domain” on 28th September 2024 for TE EnTC students.
- Expert Lecture by Ms. Arti Agarkar, Sr. Academician, VIT, Pune on “Applications of Smart Grid using IoT” on 28th September 2024 for BE EnTC students.
- Expert Lecture by Mr. Toshal Khawale, Engineering Manager, J P Morgan Chase, Pune on “Building a High Performance Web Solution Using AWS PaaS and Infrastructure Services” on 3rd October 2024 for BE EnTC students.
- Expert Lecture by Mr. Prakash Pawar, Founder & Managing Director, Tipic Consultech Pvt. Ltd. on “Work Prospect in Database Management System” on 22nd October 2024 for TE EnTC students.



DEXTERITY

The Department of Electronics and Telecommunication Engineering at MMCOE, Karvenagar, proudly hosted DEXTERITY 2k24, a national-level technical event that brought together bright minds from across the country for a day of innovation, competition, and collaboration.

The event featured a series of thoughtfully designed competitions aimed at testing and enhancing technical skills.

Creatronics – Circuit Making Competition began with a theory-based MCQ round, followed by an intense hands-on circuit-building challenge that pushed participants to apply their knowledge in real-time.



TechnoHunt – Technical Treasure Hunt kept participants on their toes with a multi-stage format: an MCQ round, a technical crossword puzzle, and a final round involving real-world simulations that required sharp thinking and team coordination.

In the DroneSim Elite – Drone Simulation Challenge, participants showcased their drone-operating abilities through a virtual simulation. The challenge tested both theoretical understanding and precision control in a complex virtual environment.

DEXTERITY



Winners were rewarded with attractive cash prizes—₹5,000 for 1st place, ₹3,000 for 2nd, and ₹2,000 for 3rd in each competition—making the event all the more competitive and rewarding.

The resounding success of DEXTERITY 2k24 was made possible by the collective efforts of the organizing team, enthusiastic participants, and the strong support of the department.

With its continued commitment to fostering technical excellence, MMCOE looks forward to hosting more such enriching events in the future.



BETA ACTIVITIES

Event: Social Activity - Garbage Collection

Event Date: 4th February 2025

On 4th February 2025, the Student Association BETA (Biasing Energy To Achieve) of MMCOE organized a community service event at Vandevi Tekdi, Karve Nagar, focused on environmental conservation through a cleanliness drive.

Over 20 BETA members participated, equipped with cleaning tools, gloves, and trash bags. Volunteers were divided into teams to collect litter—mainly plastic waste—along pathways leading to the Vandevi temple. The initiative emphasized proper waste disposal and pollution reduction.

In addition to cleaning, participants also engaged with visitors to spread awareness about the environmental impact of littering and the importance of maintaining clean public spaces. The activity saw participation from local residents as well, fostering a sense of collective responsibility.

The drive resulted in a visibly cleaner Tekdi, promoted teamwork among students, and reinforced the value of community action. The event concluded with strong enthusiasm to continue similar efforts in the future, marking it as a meaningful step towards environmental preservation.



BETA ACTIVITIES

Event: Women's Safety: Rights, Awareness and Self Defence

Event Date: 8th March 2025

The ICC and Student Association BETA of the Electronics and Telecommunication Engineering Department organized a guest lecture titled “Women's Safety: Rights, Awareness, and Self Defence” on 8th March 2025, commemorating International Women's Day. The session was delivered by Ms. Rekha Salukhe, Retired ACP, Maharashtra Police.

The primary objective was to raise awareness about women’s safety, legal rights, and self-defence strategies in contemporary society. The event was coordinated by Mrs. Harshada Burande and Mrs. Sampada Tavse, under the guidance of Dr. A. S. Bhatlawande (ICC Incharge), along with members Dr. G. R. Chillarge, Ms. Smita Kari, and Hon. Principal Dr. V. N. Gohokar.



PARENT-TEACHER MEET

Department of E&TC conducted Parent-Teacher meeting on 28th September, 2024 at 11:00 a.m. for the Sem I (AY 2024-25). Students were felicitated for their academic achievements in AY 2023-24 Sem II, University Examination and Extracurricular and Co-curricular achievement.

Head of department, Dr. A.S.Bhatlawande gave a presentation on various activities conducted in the department in AY 2024-25 Sem I. The parents interacted with the head of department, class-teachers, subject-teachers, teacher guardians and discussed the progress of their ward.

HOD (E&TC) and Ms. S. N. Deshmukh, Dean Admissions, had a discussion session with the parents in which the queries raised by the parents were resolved regarding SPPU Exam, Practicals, Internships, Academics etc.

The PTM was coordinated by Ms H.N.Burande and Ms. S.S.Tavse under the guidance of Dr. G.S.Gawande, HoD E&TC.

More than 40 parents have attended the PTM.



STUDENT ACHIEVEMENT

Name of the Student	Event	Level	Details
Team Rudra: Pushkar Ubhe,Jidnyesh Jagtap,Aditya Jadhav,Sai Pawar,Diya Bajaj,Shreyash Malode,Soham Chiplunkar,Sushrut Satbhai, Shravani Abhyankar, Chaitali Deshpande, Adwait Kedari, Krishna Shelar, Disha Zate, Asmita Bagad	DD Robocon 2024	National	"Fusion Mastermind Award" for the best design, with a cash prize worth Rs. 50,000, the "Innovation Story Helping Hand Award" with a cash prize of Rs. 25,000, the "TRS Award" of Rs. 10,000 in National Level DD Robocon competition.
Pinak Sapre	Swarbhaskar Gayan Spardha	State Level	3rd rank
Prathmesh Patil Aditya Shinde Atharva Kanawade Aarav Thigale Mayuri Deochake Oomkar Bedekar Shrihari Shinde Tanisha Kasliwal	Technoxian World Robotics Championship 2.0 Drone Race (FPV)	International	4th Rank
Siddhi Kulkarni Mahesh Kakad Adwait Kedari	IEEE's Flagship Event AVINYA 2025	National	2 nd Runner Up
Anjali Bhajne Diksha Ambure	Elevate Volleyball Tournament	By PICT	1 st Rank

STUDENT ACHIEVEMENT

Name of the Student	Event	Level	Details
Atharva Kanawade Aarav Thigale	Technohunt	National	1st Rank
Aary Joshi Piyush Patel	Technohunt	National	2nd Rank
Arpita Sankpal Disha Zate Smruti Belunki	Technohunt	National	3 rd Rank
Kalyan Joshi	Creatronics	National	1 st Rank
Ragini Deshmukh Asmita Bagad Chinmay Sathe	Creatronics	National	2 nd Rank
Sudarshan Patil Krishna Shelar Vedant Bedake	Creatronics	NAtional	3 rd Rank

INDUSTRIAL VISITS

Bentork Industries LLP, Pune

Date: 9th October 2024

Class: TE

Purpose: To give an exposure to measuring and displaying instruments used in the industries. To make the students aware of the current trends in the communication domain.



INDUSTRIAL VISITS

Suzlon Global Services Ltd., Supa, Parner

Date: 21st January 2025

Class: TE

Purpose: This visit was a content beyond for the topic of Sensors and transducers from which the original information is collected in an electronic system. The visit was to give awareness to the students regarding the sensors, flowmeters used in different industries like oil, gas, mining etc.



INDUSTRY SPONSORED PROJECTS

Total 30 projects were sponsored from industries.

	PROJECT TITLE	DOMAIN	NAME OF INDUSTRY
1	Integration of Biomax N Access 10 Pro Data to Cimco MDC, Cloud Storage, and Android Dashboard Development	Embedded & automation	Digitech
2	Dynamic Light bending for headlight	Embedded & automation	Vishwas Vaidya Consultancy
3	IoT-Driven Virtual Energy Manager for Optimized Savings	Communication & Signal Processing	Reliable Autotech
4	Solar Powered charger/Inverter	Electronic Material & Devices	Brose
5	Traffic managment System	Communication & Signal Processing	Aashay measurements pvt ltd
6	Vehicle to Vehicle Communication	Communication & Signal Processing	Linked LOOP
7	Size based counting of objects on a conveyor belt using PLC .	Embedded & Automation	B&R Open Automation
8	Development of Drone Surveillance system	Embedded & Automation	Flybase
9	Grading System of Drumsticks using Image Processing	Embedded & Automation	B&R Automations
10	Remaining Life Prediction of a Filament Brake Lamp	Electronic Material & Devices	Vishwas Vaidya Consultancy

INDUSTRY SPONSORED PROJECTS

	PROJECT TITLE	DOMAIN	NAME OF INDUSTRY
11	Profi-Bus Communication Protocol Conversion to Ethernet	Communication & Signal Processing	Athena Automation
12	Frugal Innovations in Automotive Headlight Systems	Electronic Material & Devices	Vishwas Vaidya Consultancy
13	IoT Enabled PCB Testing Jig	Communication & Signal Processing	S2R2 Technologies
14	Protocol conversion	Communication & Signal Processing	Athena Automation
15	Digital Transformation of Conventional Water Meter using ESP-Cam	Communication & Signal Processing	Tronix365
16	Testing setup for BHEL make IGBT Power Module	Electronic Material & Devices	Indian Railways (POH BSL)
17	Setting up Opensource RF Simulation Platform	Communication & Signal Processing	Bedrocks Microwave
18	FPGA implementation of power efficient decoder design for SRAM	VLSI & chip Design	CoreEL
19	RF Based Electronic Product Designing and Simulation	Communication & Signal Processing	Cyronics Instruments
20	Electronic control of filament Based Lamp for life Enhancement	Electronic Material & Devices	Vishwas Vaidya Consultancy

INDUSTRY SPONSORED PROJECTS

	PROJECT TITLE	DOMAIN	NAME OF INDUSTRY
21	Comfort and Convenience Electronic Control Unit	Embedded & automation	Exergy Solutions
22	Dynamo Based Battery Charging Bicycle	Electronic Material & Devices	Vishwas Vaidya Consultancy
23	VLSI Implementation for disease detection.	VLSI & chip Design	Core EL Technologies
24	Customised PCB Designing for Inverter	Embedded & automation	Exergy Solutions
25	Flood monitoring system	Embedded & automation	Akshay Measurement System
26	RF Based Electronic Product Designing and Simulation	Communication & Signal Processing	Cyronics Instruments
27	Automatic rain sensing convertable shelter	Embedded & automation	Electronica Pvt. Ltd
28	Solar Wireless Electric vehicle Charging system	Embedded & automation	Surya Logics
29	Dual Mode Autonomous Teracopter	Embedded & automation	Bharat Forge
30	Solar based Battery Charger	Electronic Material & Devices	Whizkeys

LIST OF PATENTS

Sr. No.	Year	Name of Faculty	Patent Title	Status
1	2024	Mrs.Pallavi D. Wadkar	AIR POLLUTANT REMOVAL CHAMBER	Published
2	2024	Dr.G.S.Gawande	AN AUTOMATIC AIR CONDITIONER TEMPERATURE CONTROLLER SYSTEM	Published
3	2024	Dr.G.S.Gawande	SENSOR BASED AUTOMATIC WASTE SEGREGATOR	Published

FACULTY AWARDS AND RECOGNITION

Sr. No.	Date	Name of Faculty	Name of Award/ Recognition	Agency / Body
1	20/12/24 and 21/12/24	Dr. Neeta N. Thune	Reviewer at 2nd IEEE International Conference on Artificial Intelligence and Quantum Computation-Based Sensor Applications	G H Rasoni College of Engineering and Management, Nagpur, and technically co-sponsored by IEEE Bombay Section.
2	20/12/24 and 21/12/24	Ms. Madhavee L. Deorankar	Reviewer at 2nd IEEE International Conference on Artificial Intelligence and Quantum Computation-Based Sensor Applications	G H Rasoni College of Engineering and Management, Nagpur, and technically co-sponsored by IEEE Bombay Section.
3	Jul-Oct 2024	Ms. Madhavee L. Deorankar	NPTEL certification- Cloud Computing	NPTEL - AICTE
4	Jul-Oct 2024	Ms. Madhavee L. Deorankar	NPTEL certification- Machine Learning	NPTEL - AICTE

PLACEMENT ACTIVITY (AY 2023-24)

- Preplacement talk by KPIT Technologies, Pune for BE students was conducted on 26th July, 2023
- Aptitude training sessions for BE students were organized from 14th-18th September, 2023.

Students were placed in the following compaies in the first semester itself of the academic year 2023-24



EDITORIAL COMMITTEE

Staff Members:- Ms. Ranjana Kedar

Student Members:-Ms. Shravani Abhyankar