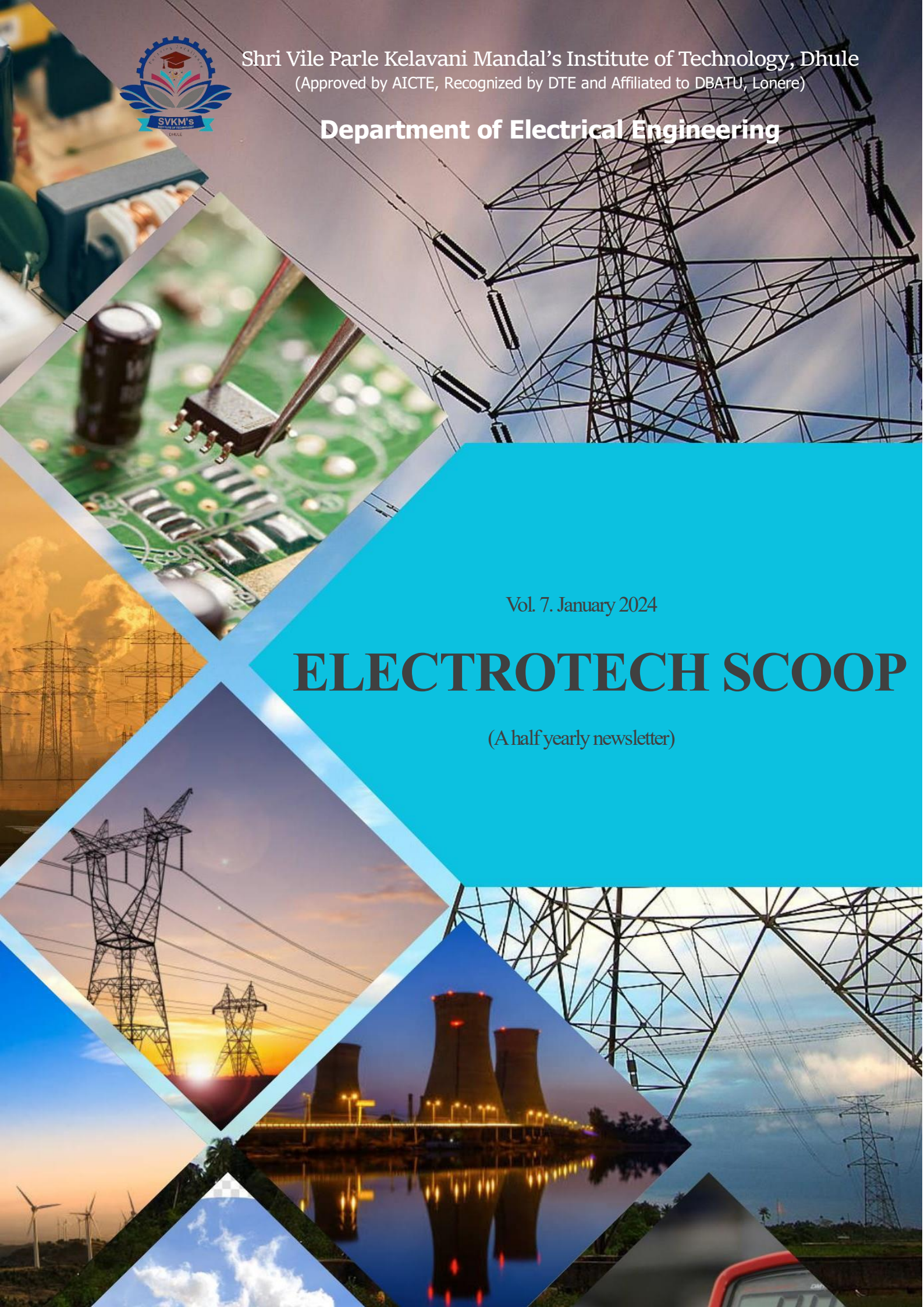


Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule
(Approved by AICTE, Recognized by DTE and Affiliated to DBATU, Lonere)

Department of Electrical Engineering

Vol. 7. January 2024

ELECTROTECH SCOOP

(A half yearly newsletter)

CHAIRMAN'S MESSAGE

Hon. Shri. Amrishbhai R. Patel

I am happy to see the seventh edition of newsletter "Electrotech Scoop" January 2024 edition under Electrical Engineering Department of SVKM's Institute of Technology, Dhule. The newsletter/magazine is a communication medium for all students, staff, parents and friends to know the recent activities and developments that are taking place at the departmental level. I congratulate the Hon. Principal, HOD, Faculty Members, Technical staff, students and the editorial team for coming up with this new issue of newsletter/magazine for the department.

At SVKM's Institute of Technology, we remain committed to give very best to the students under our assistance. I want to extend my heartfelt gratitude to all the parents, students, stakeholders who have put their trust in us and been a part of this wonderful journey of SVKM's Dhule Campus.

Let's come together to work with vision of Trust "Pursuing Excellence in Education"

PRINCIPAL'S MESSAGE

Dr. Nilesh Salunke

I am very pleased to see the seventh edition of newsletter of Electrical Engineering Department "Electrotech Scoop" January 2023 edition.

The newsletter contains all the information related to student activities, achievements, faculty achievements, workshops and other activities conducted at the departmental level. Indeed, it is a canvass that has taken its forum through the contribution of all the concerned in the Department. I would like to congratulate the Head of Department as well as staff and students.

I wish many more activities, academic pursuits, and achievements coming across our path as we journey together to conquer the milestone with SVKM's Institute of Technology, Dhule.

HOD'S MESSAGE

Dr. Vishal Moyal

I am very blissful to inform that Department of Electrical Engineering, has taken a leading role constructively in various development activities. The newsletter report highlights many evidences in the areas, such as, industrial visits, internship, training of students and faculties. A major area of focus during this Academic Year 2023-24 has been the research, projects and funding.

The department continually strives to nurture the new relations with follow-up activities to strengthen the bond between academia and industry. Students got opportunities to learn in this new fashion and innovate through industry supported projects, internships, and guest lectures of eminent persons. Research papers have been published in the renounced national and international conferences by the department in this year which shows a healthy trend and positive look. This year I proud to express that our faculties are showing interest in research, one of our projects on drone got awarded with third prize at national level in this academic year and almost all faculties are contributing in projects and publications.

DRONES AND TECHNOLOGY

Drones are Unmanned Aerial System (UAS) which can run without any human intervention India's drone business is growing, though it is still in its infancy. Currently, military and defence applications make up the majority of its uses. Projects like NISHANT, BLACK KITE, GOLDEN HAWK and PUSHPAK have previously been finished by DRDO. Drones are not only utilized extensively in military applications but also in surveillance, crop protection, surveying construction sites, photography, filmmaking, e-commerce, disaster management, and many more fields.

Drones are very appealing for many new applications because of features like autonomous operation, quick response, easy controllability and deployment, precision, safe operation in dangerous conditions, and so forth. Numerous businesses and startups are experimenting with drone technology in order to find new uses. In spite of this, the government has placed limitations on drone ownership and importation until 2021 because of issues like cybersecurity. Subsequently, the government has taken a few actions to support this industry, including expanding air space and introducing programs like drone shakti, an incentive scheme connected to production.

A full drone ecosystem is available, comprising drone manufacturers, dealers of spare parts, maintenance and repair services, drone platform services, and drone instruction and training. The Ministry of Civil Aviation identified five key pillars that will allow India to be a drone hub in the next few years: Ease of Doing Business (Drone Rules 2021), financial incentives (PLI scheme), government as market maker (procurement by government), export liberalisation and domestic industry promotion (Import prohibition).

After the drone regulations, the ministry issued the drone airspace map and a PLI scheme in September 2021 and the UAS Traffic Management (UTM) policy framework in October 2021.The map published on September 24, 2021 opened nearly 90 per cent of Indian airspace as a green zone for drones flying up to 400 feet. After a blanket ban in 2014 was applied on public use of drones, certification scheme for unmanned aircraft system is another steps taken by government of India to promote the drone industry. The government also abolished the requirement of a drone pilot license in February 2022(Drones rules 2021). Drone training schools have also been set up in various states which have the potential to be game-changers in the promotion and development of drone applications.

A major thrust to boost the indigenous drone market happened when the government decided to ban the import of foreign drones with certain exceptions given for research and development, defence and security purposes.

-Mr. T M Shubham

INSTITUTE VISION

To be a socially sensitive engineering institute of excellence adding value to the nation.

INSTITUTE MISSION

1. To provide resources of excellence with a focus on nurturing and developing the society.

2. To strive to be an institute of global recognition.

DEPARTMENT VISION

To nurture technically efficient and socially responsible Electrical Engineers, capable of meeting society's future requirements and environmental challenges.

DEPARTMENT MISSION

M1: To improve academic infrastructure in the field of Electrical Engineering, resulting in high-quality professionals, by utilizing modern technology and design automation tools.

M2: To provide industry with technically educated and globally competent Electrical Engineers.

M3: To inculcate passion for learning and encourage creativity to serve society.

PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)

PEO1: To develop the ability of solving engineering problems using the fundamentals of science and mathematics.

PEO2: To create the ability to use design automation tools and design for addressing social and industrial challenges.

PEO3: To encourage graduates for higher education, careers in research and entrepreneurship to work as part of a team with leadership skills.

PROGRAM SPECIFIC OUTCOMES (PSO'S)

PSO1: Graduate will apply Electrical Engineering knowledge effectively in the context of environmental and social concerns.

PSO2: Graduates will exhibit their understanding of electrical engineering for systems design and experimentation.

PSO3: Graduates will strive to pursue lifelong learning and leadership prospects.

PROGRAM OUTCOMES (PO'S)

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

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.

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.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern tool 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.

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.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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.

Project management and 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.

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.

FACULTY MEMBERS

Dr. Vishal Moyal
Associate Professor
and Head of the Department

Dr. Namra Joshi
Associate Professor

Dr. M. Ankush Kumar
Assistant Professor

Dr. Rajkumar Jhapte
Assistant Professor

Mr. Sandeep Ushkewar
Assistant professor

Mr. Gaurav Patil
Assistant Professor

Mr. Jagdish More
Assistant Professor

Ms. Farha Naz
Assistant professor

Mr. Shahid Akhtar
Assistant Professor

Mr. T. M. Shubham
Assistant Professor

TECHNICAL ASSISTANTS

Mr. Rahul Thakur
Technical Assistant

Mr. Jayesh Patil
Technical Assistant

Mr. Pankaj Bhavsar
Technical Assistant

FACULTY CONTRIBUTIONS

Faculty Publications

S. No.	Name of the Faculty	Title of the paper	Name of the Journal/Conference	Indexing	Date of Publication
1	Dr. Vishal Moyal	Athlete Fitness Monitoring with the Application of Wearable IoT Devices	2023 4th International Conference on Smart Electronics and Communication (ICOSEC)	SCOPUS	22.09.2023
2	Dr. Namra Joshi	Renewable Energy based Expressway DG System	2nd International Conference on Automation, Computing and Renewable Systems (ICACRS)	SCOPUS	13.12.2023
		Importance of Information Security in Smart Grid	2023 International Conference on Multidisciplinary Research in Technology and Management (MRTM)	SCOPUS	23.09.2023
3	Mr. Sandeep Ushkewar	Design and Simulation of Smart Inverter	Indian Journal of Technical Education published by the Indian Society for Technical Education	UGC Care	December 2023

Faculty Attended Conferences/FDPs/STTPs

S. No.	Name of Faculty	Title	Start Date	End Date
1	Dr. Vishal Moyal	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
2	Dr. Namra Joshi	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
3	Dr. M. Ankush Kumar	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
4	Mr. Sandeep Ushkewar	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
5	Mr. Gaurav Patil	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
6	Mr. Shahid Akhtar	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
		International Conference on Soft Computing and its Engineering Applications	07.Dec.2023	09.Dec.2023
7	Ms. Farha Naz	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
		Building Advanced Data Analytics Application with Cloud	18.Dec.2023	22.Dec.2023
8	Mr. T. M. Shubham	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023

S. No.	Name of Faculty	Title	Start Date	End Date
9	Mr. Jagdish More	Smart Grid and Integration of Distributed Generation	28.Aug.2023	01.Sep.2023
		NAAC and Internal Quality Assurance	11.Sep.2023	15.Sep.2023
		International Conference on Soft Computing and its Engineering Applications	07.Dec.2023	09.Dec.2023

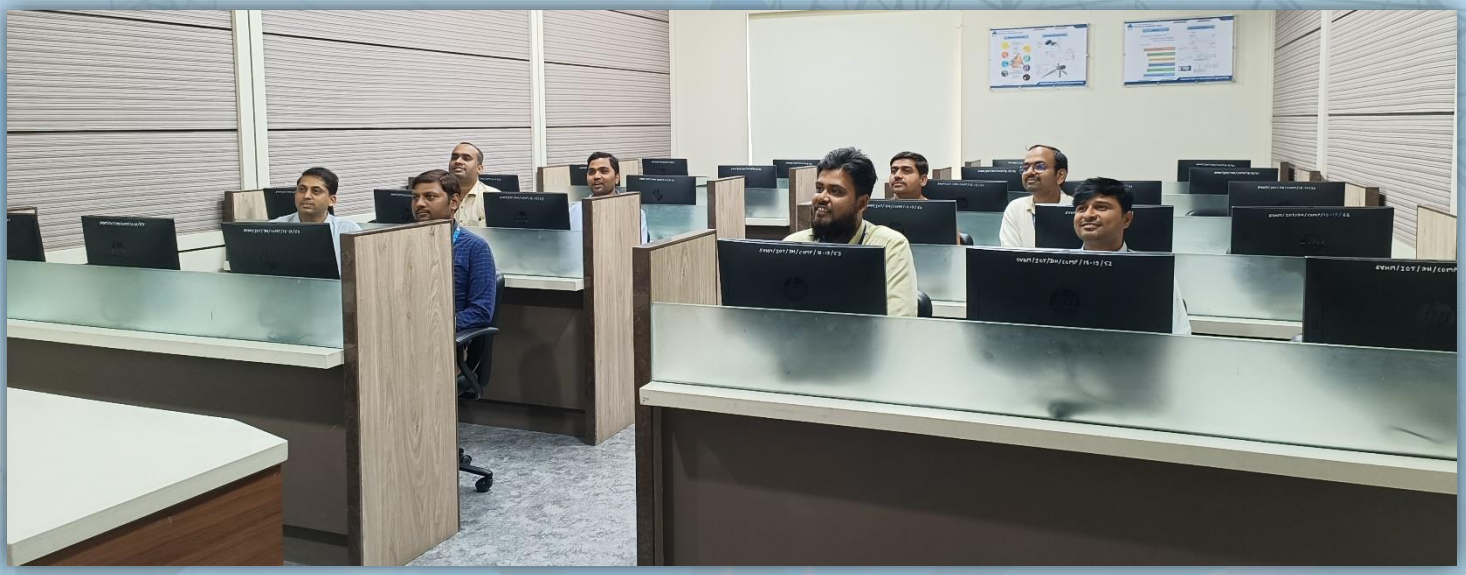
Faculty Achievements

Sr. No.	Name of the Faculty	Details of Achievement
1	Dr. Namra Joshi	Received an appreciation letter for delivering and Expert talk on "National Energy Conservation Day" under IIC at Prince Shri Venkateshwara Padmawathy Engineering College on 14.12.2023.
2	Dr. Namra Joshi	Recognized as a session chair for First IEEE International Conference on Data Science and Network Security 2023 at Kalpataru Institute of Technology, Tiptur, from 28th to 29th July 2023.

Mr. Sandeep Ushkewar as a co-investigator has successfully completed a project titled "Solar Powered Smart School" under Unnat Bharat Abhiyan (UBA) 2.0 with project no. RP-03525G. This project has received a funding of **Rs. 100,000/-** from the National Coordinating Institute UBA 2.0 (IIT Delhi) on 17 March 2023.

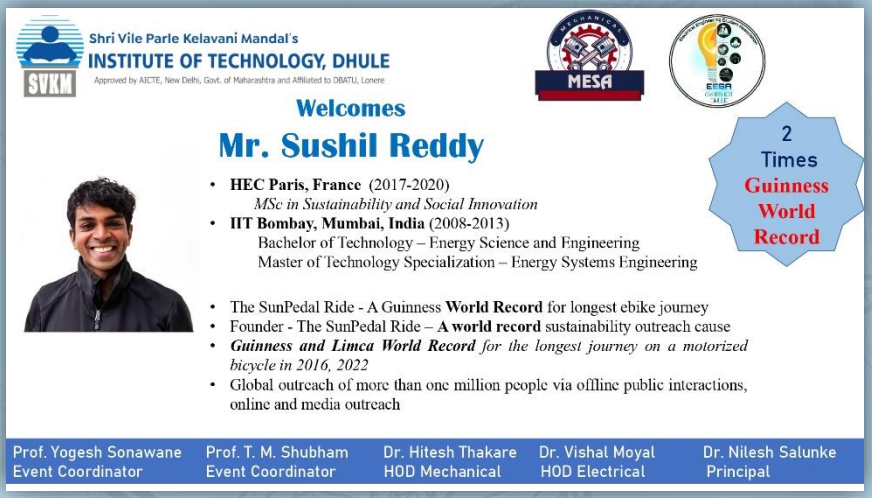
FACULTY DEVELOMENT PROGRAMS

To motivate department faculties towards the upcoming area of smart grids and integration of distributed generations a one week FDP was organized in the department in collaboration with NITTTR Chandigarh from 28/08/2023 to 01/09/2023. A wide range of topics are covered in this FDP such as, Modern Era Energy Grid, Micro-grid – Types, Topologies and Control, Challenges in Smart Grid Implementation and 12. Real Time Simulation of various DG systems and Micro-grid using Typhoon HIL.



EXPERT TALKS

On the auspicious day of Engineer's day i.e., 15th September 2023, department of Electrical and Mechanical Engineering has jointly organized an expert session on E-mobility. The speaker of the session was Mr. Sushil Reddy. He is an alumni of IIT Bombay and two times Guinness world record holder.



The talk covered wide range of topics related to Electric Vehicles(EV) starting from components of EV. Mechanical design aspects, fast and slow chargers and the maintenance of EVs.

Further, to elaborate students about the basics of communication systems, department has organized an expert talk on Advances in Communication Industry on 20.10.2023. This expert talk was sponsored by IEEE communication society.

The guest and the speaker of the talk was Dr. Vijay S. Patil, Head and Associate Professor, Department of Electrical Engineering, RC Patel Institute of Technology, Shirpur. His talk covered the generations of connectivity and their respective speeds of data transfer, the differences between generations and connectivity and their technical advancements and future scope of advancement in the communication technology. The talk helped students to understand the basics of communication systems and its future requirements of developments.

Mechatronics has a significant contribution to manufacturing. Automation has taken a major role in manufacturing and robots are performing the majority of jobs that were once accomplished by skilled workers. Implementing smart machines by incorporating the Internet of Things (IoT) and Artificial Intelligence (AI), leads to precise manufacturing and attaining the zero waste target. To elaborate students with the advancements in Mechatronics Engineering and to explore the opportunities and applications of Mechatronics Engineering in industries, department has organized and expert talk on Recent Trends in Mechatronics Engineering on 31.10.2023.


SVKM's Institute of Technology
Dhule, Maharashtra
Department of Electrical Engineering

Organizing
Expert Lecture on
"Recent Trends in Mechatronics Engineering"
RESOURCE PERSON

Dr. SSPM Sharma B.
Assistant Professor, School of Mechatronics
Symbiosis University of Applied Sciences
Indore, Madhya Pradesh

Date: 31st October 2023; Time: 11:00 AM Onwards
Venue: Classroom No. 411,
Third Floor, SVKM's IOT, Dhule
No Registration Fees
Link: https://tinyurl.com/mrxc7j6w

For Any Query Please Contact
Dr. Namra Joshi [9179119207] Namra.Joshi@svkm.ac.in

Dr. Vishal Moyal
HOD Electrical Engg.
SVKM's IOT, Dhule

Dr. Nilesh P. Salunke
Principal
SVKM's IOT, Dhule

The speaker of the talk was Dr. SSPM Sharma B, Assistant Professor, School of Mechatronics, Symbiosis University of Applied sciences, Indore. His talk covered different components of Mechatronics and their working and applications. The talk helped students to understand the importance of mechatronics in industries.

ANTI RAGGING ACT

Students of the Department have presented a skit on awareness of ragging and its adverse effects as a part of Anti-Ragging week. In this act, students presented different ways ragging and their impacts on feelings of victims. The motivation of the act was to create an awareness in students about the impact of ragging and creating a ragging free or friendly campus for the upcoming students.

CULTURAL EVENTS

On the 16th September 2023, our graduation party unfolded with grace and grandeur. The pinnacle of the event was the solemn Convocation ceremony, marking the transition of the Class of 2023. The afternoon was filled with vibrant cultural activities that added a colorful touch to the celebration.

Navratri is a Hindu festival celebrated in the autumn every year. It is observed for various reasons and celebrated differently in various parts of the Indian subcontinent. On this occasion, the Cultural Committee EESA of Electrical Engineering Department, SVKM's Institute of Technology has organized this event on 21st October 2023. The event was well attended by all the enthusiastic students, faculty and staff members in traditional grooming. Cultural Committee Students coordinated the activities to make the event successful.

The 21st October 2023 was as a memorable day in the life of every fresher of academic year 2023-2024 batch at SVKM's Institute of Technology, Dhule. The fresher's day was filled with excitement, joy, music, enthusiasm, laughter and happiness. It is the day where seniors and juniors finally bond and unite to celebrate being part of the college. The event was structured in the three categories based on Dancing, Singing, Drama, Stand Up Comedy & Mr. & Ms. Fresher's of 2023.

STUDENTS ACHIEVEMENTS

Society of Automotive Engineers (SAE) southern section organized a competition “Autonomous drone development challenge”. A team (Dhule Technos) from third year has participated in the competition. The problem statement given in this competition was that each team has to design a drone which can fly autonomously and should deliver an egg to a designated point to be decided by judges on the day of final round of the competition. This competition held in August 2023. Teams from all over India participated in this competition. Dhule Technos succeeded in completing the challenge in a justified manner and secured a third position in design category. Following are the team members of the Dhule Technos:

S. NO.	Name of the Student
1	Vikas Sanjay Patil (Team leader)
2	Mohit Manish Morankar
3	Chandanraj Rakesh Patil
4	Mrunal Dhirendra Patil
5	Tejasvini Ramdas Patil
6	Kajal Dipak More
7	Digesh Sudhir Patil
8	Bhagyashree Pravin Patil
9	Uday Dnyaneshwar Mahale
10	Abbas Saifee

Sr. No.	Name of the Student	Paper Title	Name of the Conference
1	1.Sulakshana Patil 2.Kajal More 3.Kuldip patil 4.Hrishikesh Chaudhary	Renewable Energy based Expressway DG System	2nd International Conference on Automation Computing and Renewable Systems (ICACRS-2023) (Dec-2023)
2	Darshana Chaudhary	Potential Assessment of Liquid Tree in Dhule City	1st International Conference on Advancement in Energy (ऊर्जा Sangam-2023) held during 18-20 December 2023

STUDENTS ACHIEVEMENTS - PLACEMENTS

Sr. No.	Student Name	Employee Name	Package
01	Gayatri Komalsing Rajput	Kokban Automation Pvt. Ltd., Pune.	5000 Stipend
02	Gajare Kalyan Haribhau	Kokban Automation Pvt. Ltd., Pune.	5000 Stipend
03	Baviskar Shweta Milind	Kokban Automation Pvt. Ltd., Pune.	5000 Stipend

MEMBERS OF IEEE

Mr. Sandeep Ushkewar
IEEE Student Branch Counselor

Kedar Jawarkar
Student Chair

Mahakan Ahuja
Student Vice Chair

Gayatri Rana
Secretary

Devyani Jadhav
Jy. Secretary

Surabhi Gupta
Treasurer

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