



### **CHAIRMAN'S MESSAGE**

# Hon. Shri. Amrishbhai R. Patel

I am happy to see the eighth 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.



# PRINCIPAL'S MESSAGE

# Dr. Nilesh Salunke

I am very pleased to see the eighth 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 patents.

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 faculty has received a patent grant and two faculties have published patents in Intellectual Property Rights India in this academic year and almost all faculties are contributing in projects and publications.

Patents are crucial for fostering economic growth and preserving creativity because they allow inventors to retain exclusive ownership of their creations. Indian patent registration is necessary to safeguard intellectual property and advance research and development. It is imperative for innovators and entrepreneurs to comprehend the significance of patents, the application process, and the qualifying requirements. Patents benefit society by encouraging innovation and assisting in the creation of new goods. Additionally, they safeguard intellectual property. An innovator who receives a patent protects their exclusive right to market their creation at a premium price for twenty years, as well as the prohibition on others utilizing, manufacturing, and selling it.

The exclusive right that patents give innovators to commercially utilize their creations is what makes them so important. Because it ensures that inventors will be able to recoup their investments and reap rewards for their efforts, this exclusivity serves as a powerful incentive for invention. Furthermore, by making inventions available to the general public, patents encourage the spread of knowledge and advance technical advancement.

Obtaining legal protection against any unauthorized use, reproduction, or sale of the protected innovation is possible in India through patent registration. Patents provide a competitive edge in the market by preventing others from using the idea without authorization. Furthermore, patents can be made commercially viable through direct sales or licensing contracts, which pays inventors and encourages business growth.

In India, patent applications may be submitted by individuals, groups of individuals, or legal companies. This covers those looking for legal protection for their ideas in India, such as corporations, researchers, inventors, and even foreign entities. However, it is imperative to recognize that throughout the application process, inventors are required to provide all relevant information and declare that they are the true proprietors of the invention.

- Dr. M. Ankush Kumar

# **INSTITUTE VISION**

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

#### **INSTITUTE MISSION**

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

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 PUBLICATIONS

S. No.	Name of the Faculty	Title of the paper	Name of the Journal/Conference	Indexing	Date of Publication
		Robust Clustering-Based Automated Video Shot Boundary Detection Using Handcrafted and Deep Feature Fusion	International Journal on Artificial Intelligence Tools	SCI	June 2024
1 Dr. Vish Moyal	Dr. Vishal Moyal	Comparative Study on Different Machine Learning Algorithms for Neonatal Diabetes Detection	Journal of Information Technology Management.	SCOPUS	February 2024
		Synergy for Sustainability: Blending Solar PV + Wind Power for Managing Intermittency	International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology		March 2024
	Dr. Namra	Solar Powered Garbage Management System	International Journal of Engineering and Management Research	SCILit	June 2024
2	2 Dr. Namra Joshi	Analysis of Hybrid Distributed Generation System Using HOMER	International Conference on Smart Technologies for Power and Renewable Energy	SCOPUS	April 2024
3	Dr. M. Ankush Kumar	Fault Analysis in a Hybrid AC-LVDC Distribution Systems	TIJER - International Research Journal	UGC Care	April 2024
3		An Evaluation of Solar Photovoltaic System Depreciation Using PVSOL	International Journal of Engineering and Management Research	UGC Care	June 2024
	Mr. Sandeep Ushkewar	Fault Detection and Diagnosis in Electric Vehicle Systems using IoT and Machine Learning: A Support Vector Machine Approach	Journal of Electrical Systems	SCOPUS	March 2024
		A Fuzzy Logic Approach for Enhancement Of Maximum Power Extraction In Solar Photovoltaic System	IEEE International Conference on Recent Innovation in Smart and Sustainable Technology.	SCOPUS	March 2024
		Blockchain and AI Powered Intelligent Power Grid: Analysis and Implementation	International Conference on Innovations in Cybersecurity and Data Science	SCOPUS	March 2024
		Synergy for Sustainability: Blending Solar PV + Wind Power for Managing Intermittency	10 <sup>th</sup> International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	-	March 2024
		Analysis of PV Grid Connected Bidirectional Batteries	International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics.	SCOPUS	January 2024

	Mr. Shahid Akhtar	A Fuzzy Logic Approach for	IEEE International	1 8 A	March 2024
		Enhancement of Maximum	Conference on Recent	SCOPUS	
		Power Extraction In Solar	Innovation in Smart and		
1		Photovoltaic System	Sustainable Technology.		
4		Fault Diagnosis and	International Conference		
		Predictive Maintenance of	on Sustainable Power and	SCOPUS	March 2024
		Wind Turbine: A Machine	Energy Research	SCOFUS	March 2024
		Learning Approach			

# **FACULTY ACHIEVEMENTS**

Faculty	Faculty Achievements				
Sr. No.	Name of the Faculty	Details of Achievement			
1	Kumar	Received a Patent Grant titled "Method and System for Providing Power Resilience during and Aftermath of Disasters using Intentional Islanding" from Intellectual Property Rights, India on 20.02.2024.			
2	Jhapte	Published a patent tiled "Design of Wireless Sensor and Actuator Network for Irrigation based on IoT Technology" in Intellectual Property rights India on 26.01.2024 with application no. 202321089575 A.			
3		Published a patent tiled "Low Power VLSI Application for 5G Communication Devices" in Intellectual Property rights India on 03.06.2023 with application no. 202341038413.			
4		Received appreciation for successfully completing the funded project of Rs. 4,80,000/-under TIH-IoT Chankya Fellowship, IIT Bombay.			

# **FACULTY CERTIFICATIONS**

Faculty Attended Conferences/FDPs/STTPs					
S. No.	Name of Faculty Title		Start Date	End Date	
1	Dr. M. Ankush Kumar	Module 1: Orientation towards Technical Education and Curriculum Aspects	Oct. 2023	Jan. 2024	
	Kulllar	Module 2: Professional Ethics and Sustainability	Oct. 2023	Jan. 2024	
		FLOW-Flourishing Leaders of the World	28.06.2024	30.06.2024	
2	Mr. Sandeep Ushkewar	Industry Academia Consortium in Control Energy and Management	13.05.2024	17.05.2024	
2		Additive Manufacturing for Bio-medical Applications	22.04.2024	26.04.2024	
		NSQF Aligned Skill Development	19.02.2024	23.02.2024	
		NPTEL-AICTE FDP on Facts Devices	Jan 2024	Mar 2024	
3	Dr. Rajkumar Jhapte	NPTEL-AICTE FDP on Introduction to Intellectual Property to Engineers and Technologists	Jan 2024	Mar 2024	
4	Mr. T. M. Shubham	NSQF Aligned Skill Development	19.02.2024	23.02.2024	
5	Ms. Farha Naz	AI Evolution: From Foundations to Generative AI	22.01.2024	27.01.2024	
		Building Advanced Data Analytics Applications with Cloud	18.12.2023	22.12.2023	

### FACULTY CONTRIBUTIONS TO OUTSIDE WORLD

Dr. Vishal Moyal, SMIEEE, Head, Department of Electrical Engineering has collaborated the SVKM's IEEE Student Branch with IEEE University of Kurdistan Student Branch and delivered a webinar on "Role of AI in modern VLSI design" on 1st June 2024.



Dr. Vishal Moyal, Head, Department of Electrical Engineering has also delivered a session in one-week Faculty Development Program on "AI, Optimization and NEP 2020" organized by Civil Engineering Shikshan Maharshi Department, Dadasaheb Rawal Government Polytechnic, Dhule on 04<sup>th</sup> January 2024. The title of the session was "Introduction to AI".



Dr. Rajkumar Jhapte, SMIEEE, Assistant Professor of Electrical Engineering has delivered a session on "Navigating the Research Process from Idea to Publication" for Christian College of Engineering & Technology, Bhilai on 15<sup>th</sup> June 2024 under Institute Innovation Council.



### **EXPERT TALKS**

Present days, the smart grid technologies and their implicational issues are gaining more attention. A subject on smart grid technologies is elected by students in their curriculum. In order to elaborate the power quality issues inside a smart grid, depart has organized an expert talk on 22.05.2024 by Dr. M.J. Murali, Assistant Professor, Department of Electrical and Electronics Engineering, Prince Shri Venkateshwara Padmavathy Engineering College, Tamilnadu.





# SVKM's Institute of Technology

Dhule, Maharashtra
Department of Electrical Engineering
Expert Lecture



"Emerging Trends in Smart Grid"







Mr. Krishnagandhi Pachiappan Assistant Professor Department of Electrical & Electronics Engineering Nandha Engineering College (Autonomous)

Erode, Tamilnadu, India

Date: 15th May 2024; Time: 11:00 AM Onwards

Venue: Classroom No. 409 Third Floor, SVKM's IOT, Dhule Link: https://tinyurl.com/yrb7ycrr For Any Query Please Contact

Faculty Coordinator Dr. Namra Joshi Assistant Professor

Dr. Vishal Moyal HOD, Electrical Engg. SVKM's IOT, Dhule Student Coordinator Riya Patel Surbhi Gupta

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

Further, department has also organized an expert session on emerging trends in smart grids and the advancements in smart grid technologies on 15.05.2024 by Mr. Krishnagandhi Pachippan, Assistant Professor, Department of Electrical and Electronics Engineering, Nanda Engineering College, Tamilnadu.





Also, department has organized an expert session on importance of Material Science in Transmission Line Design on 08.05.2024 by Dr. Harishchander Anandaram, Assistant Professor, Center for Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Tamilnadu.

### **EVENTS**

Astronomy can be daunting for beginners — after all there's a whole universe out there! But stargazing basics don't have to be hard. The best way to start exploring the night sky is with the telescope. With this context, Department of Electrical Engineering in collaboration with Inner Wheel Club of Dhule Crossroad GenX has organized the stargazing event on 04.05.2024 for the students all branches. The guest and the speaker of the event was "Mr. Chetan Patil", Department of Higher Secondary (Science), SVKM School, Dhule.







Students with vision impairment may access information in a variety of ways, for example Braille, audio-tape, or enlarged print. In this regard, to motivate the blind students, Department students and faculty has contributed towards the donation of talking watches





and uniforms to blind school students on the occasion of "Chatrapati Shivaji Jayanti" through "Sahakarya Prathishthan Trust" on 19.02.2024.

The venue of the event was Blind Student's School, Ganapati Mandir Road, Dhule.

# STUDENT PUBLICATIONS

S. No.	Name of the Students	Title of the paper	Name of the Journal/Conference	Indexing	Date of Publication
1	Hemangi Thakare Anamika Patil Sejal Puri Sejal Patil	Solar Powered Garbage Management System	International Journal of Engineering and Management Research	UGC Care	June 2024
2	Bhushan Patil Vikas Patil Joy Fernandez Mustakim Maniyar	Analysis of Hybrid Distributed Generation System Using HOMER	Second International Conference on Smart Technologies for Power and Renewable Energy	SCOPUS	April 2024
3	Digesh Patil Mohit Morankar Mayur Godse Uday Mahale	Fault Analysis in a Hybrid AC-LVDC Distribution Systems	TIJER - International Research Journal	UGC Care	April 2024
4	Siddhant Vispute	Blockchain and AI Powered Intelligent Power Grid: Analysis and Implementation	International Conference on Innovations in Cybersecurity and Data Science	SCOPUS	March 2024
5	Faizan Shaik Pratiksha Lohar Mayur Mali Rohit Deore	Fault Diagnosis and Predictive Maintenance of Wind Turbine: A Machine Learning Approach	International Conference on Sustainable Power and Energy Research	SCOPUS	March 2024
6	Chandanraj patil Saurabh Bhavsar	Synergy for Sustainability: Blending Solar PV + Wind Power for Managing Intermittency	10 <sup>th</sup> International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology		March 2024
7	Asad Ansari  A Fuzzy Logic Approafor Enhancement of Maximum Power  Extraction In Solar Photovoltaic System		IEEE International Conference on Recent Innovation in Smart and Sustainable Technology.	SCOPUS	March 2024
8	Rohini More  Kalyani Chavan	Transient Stability Analysis of IEEE Test System	2 <sup>nd</sup> International Conference for Women Innovation, Technology and Entrepreneurship		February 2024
9	Abhishek Deore  Abbas Saifee	Analysis of PV Grid Connected Bidirectional Batteries	2 <sup>nd</sup> IEEE International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics.	SCOPUS	January 2024

### STUDENT ACHIEVEMENTS

S. No.	Name of the Student	Name of the event	Level
1	Manoj Songire	Kabaddi	Zonal
2	Ghoshita Patil	Basket Ball	Zonal





### STUDENT ACHIEVEMENTS IN PLACEMENTS



# STUDENT ACHIEVEMENTS IN PLACEMENTS

Sr.	<b>Student Name</b>	<b>Employee Name</b>	Package
No.			N Marie Mari
01	Chandanraj Patil	eTeam Staffing and Recruiting	3.5 LPA
02	Kajal More	eTeam Staffing and Recruiting	3.5 LPA
03	Neha Patil	eTeam Staffing and Recruiting	3.5 LPA
04	Tejaswini Patil	eTeam Staffing and Recruiting	3.5 LPA
05	Vinit Bhatia	Tata Consultancy Services	3.36 LPA
06	Digesh Patil	Whirlpool	3 LPA
07	Vishal Paradhi	Alok Industries Limited	3 LPA
08	Rahul Beldar	Alok Industries Limited	3 LPA
09	Jitendra Patil	Dhoot Transmission	1.92 LPA
10	Dhiraj Sonawane	Dhoot Transmission	1.92 LPA
11	Joy Fernandes	Dhoot Transmission	1.92 LPA
12	Komal Mahire	Dhoot Transmission	1.92 LPA
13	Kuldip Patil	Dhoot Transmission	1.92 LPA
14	Manoj Amrutkar	Dhoot Transmission	1.92 LPA
15	Mayur Godse	Dhoot Transmission	1.92 LPA
16	Mrunal patil	Dhoot Transmission	1.92 LPA

# **MEMBERS OF IEEE**



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IEEE Student Branch Counselor



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