

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

# Mind-Spark4.0



## **JUNE 2024**



#### **CHAIRMAN's MESSAGE**

#### Hon. Shri. Amrishbhai R. Patel

I am happy to see the fourth edition of newsletter "**Mind Spark 4.0**" June 2024 edition under Mechanical 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 Second Edition of newsletter of Mechanical Engineering department "Mind Spark 4.0" June 2024 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. Hitesh Thakare

I am very blissful to inform that Department of Mechanical 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 enhancement of industry institute interaction wherein students participated in various internship activities, industrial projects as well as visit.

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. As in previous years, students passionately participated in national level technology competitions like Hackathons, Roborace etc. Department conducted some student centric training's like **CFD using Ansys**. 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 pursuing their research works and almost all the faculties have either completed or have joined the PhD program which is a good sign.

#### **INSTITUTE VISION**

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

#### INSTITUTE MISSION

- M1. To provide resources of excellence with a focus on nurturing and developing the society.
- M2. To strive to be an institute of global recognition.

#### DEPARTMENT VISION

"Pursuing excellence in Mechanical Engineering Education."

#### DEPARTMENT MISSION

- M1. To develop conceptual and analytical skills.
- M2. To collaborate with academia, industries and professional bodies to facilitate continuous improvement in teaching, learning and research.
- M3. To inculcate team work, professional ethics and entrepreneurial spirit.

#### **PROGRAM EDUCATIONAL OBJECTIVES (PEO's)**

- PEO1. Graduates should excel in engineering positions in industry and other organizations that emphasize design and implementation of engineering systems and devices.
- PEO2. Graduates should excel in best post-graduate engineering institutes, acquiring advanced degrees in engineering and related disciplines.
- PEO3. Alumni should establish a successful career in an engineering-related field and adapt to changing technologies.
- PEO4. Graduates are expected to continue personal development through professional study and self-learning.
- PEO5. Graduates should be good citizens and cultured human beings, with full appreciation of the importance of professional, ethical and societal responsibilities.

#### **PROGRAM SPECIFIC OUTCOMES (PSO's)**

- PSO1. Design and select Mechanical Engineering components, appropriate manufacturing processes, process automation and quality assurance systems using technical and financial analysis tools.
- PSO2. To identify, formulate and solve problems related to conventional & nonconventional energy systems as well as support sustainability in the surrounding region.
- PSO3. Systematically communicate the methodology and conclusion of Mechanical engineering problem solution with colleagues and superiors through effective documentation as well as oral presentation.

#### **PROGRAM OUTCOMES (POs)**

- I.Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2.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.
- 3. 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.
- 4. 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 for complex problems.
- 5.Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 6.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.
- 7.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.
- 8.Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9.Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10.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.
- 11.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.
- 12.Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

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## **FACULTY MEMBERS**



Dr. Nilesh Salunke Principal and Professor



Dr. Udaykumar Saindane Prof. Mohammad Juneduddin Prof. Dattatray Doifode Assistant Professor



Prof. Dhiraj Bhandarkar Assistant Professor



Dr. Hitesh Thakare HOD and Associate Professor



Assistant Professor



**Prof. Satish Patil** Assistant Professor



Dr. Amol Badgujar Assistant Professor



Assistant Professor



Dr. Md Modassir Hussain Assistant Professor



**Prof. Yogesh Sonawane** Assistant Professor



Prof. Bhushan Behede Assistant Professor

## **TECHNICAL ASSISTANTS**



Mr. Mahendra Patil Technical Assistant



Mr. Amol Mahajan Technical Assistant



Mr. Suresh Patil Technical Assistant

## WORKSHOP INSTRUCTORS



Mr. Narendra Patil Welding Shop



Mr. Mahendra Lohar Machine Shop



Mr. Naval Patil CNC Shop



Mr. Gajanan Patil Fitting Shop



Mr. Yogesh Chaudhari Carpentary Shop

## FACULTY CONTRIBUTIONS

#### Faculty publication in Journals/Conferences/Book chapters :

Sr. No.	Name of Faculty	Title of Paper/Chapter	Journal Title/Conferenc e Name/Book Title	Publisher
1.	Thakare	Enhancing energy conservation in power generation in a coal fired thermal power plant through comprehensive energy audit	Energy	Elsevier
2.	Dr. Hitesh Thakare & Dr. Nilesh Salunke		Advancements in Materials Processing Technology, Volume 1	Springer
3.	Dr. Hitesh Thakare & Dr. Nilesh Salunke	Computational analysis of	Advancements in Materials Processing Technology, Volume 1	Springer

#### Faculty Development Programme / STTP Attended :

Sr. No.	Name of Faculty	FDP/STTP/ Training program attended	Resource Person(s) / Agency / COmpany	Venue	Date
1	Mr. Satish Patil	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
2	Mr. Dattatray Doifode	FDP on "Research and innovation in solar energy"	SSVPS,B.S.Deore college of Engg.,Dhule	Online	12/02/2024 to 16/02/2024
3	Mr. Dattatray Doifode	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
4	Dr. Hitesh Thakare	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
5	Mr. Mohd. Juneduddin	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024

## FACULTY CONTRIBUTIONS

#### Faculty Development Programme / STTP Attended :

Sr. No.	Name of Faculty	FDP/STTP/ Training program attended	Resource Person(s) / Agency / COmpany	Venue	Date
6	Dr. Md Modassir Hussain	FDP on "Building Advanced Data Analytics Applications with Cloud"	ATAL	Online	08/01/2024 to 12/01/2024
7	Dr. Md Modassir Hussain	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
8	Mr. Yogesh Sonawane	FDP on "Research and innovation in solar energy"	SSVPS,B.S.Deore college of Engg.,Dhule	Online	12/02/2024 to 16/02/2024
9	Mr. Yogesh Sonawane	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
10	Mr. Dhiraj Bhandarkar	FDP on "Understanding CAE System In Engineering And Technology"	Engineering Samarth Group of Institutions College of Engineering, Belhe, Pune	Online	12/02/2024 to 17/02/2024
11	Mr. Dhiraj Bhandarkar	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
12	Mr. Dhiraj Bhandarkar	FDP on "Laboratory Safety Management"	NITTR Kolkata	Online	29/04/2024 to 10/05/2024
13	Mr. Dhiraj Bhandarkar	FDP on "OBE & NEP 2020"	VIT-AP University, Amaravathi	Online	10/06/2024 to 14/06/2024
14	Mr. Bhushan C. Behede	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024
15	Dr. Amol Badgujar	FDP on "Additive manufacturing for biomedical applications"	NITTR Chandigarh	SVKM's IOT, Dhule	22/04/2024 to 26/04/2024

## **Expert Talks**



Expert talk on **"Product Development"** [27<sup>th</sup> March 2024] Resource Person: **Mr. Bhavesh Deore,** ADV Technophiles. Participants = TY Mechanical Students **Coordinator:** Mr. Satish Patil.



Expert talk on "Energy Conservation in Commercial Building" [18th April 2024]
Resource Person: Mr. Pramod Daspute, BEE Certified Energy Auditor, Consultant, Eco
Energy Solution, Thane, Mumbai
Participants = TY Mechanical Students
Coordinator: Dr. Hitesh Thakare.

## **Industrial Visits**



Industrial visit to "Sahyadri farms, Nashik" [09<sup>th</sup> March 2024]
The total number of students participated : 12
Coordinator: Mr. Dattatray Doifode



Industrial visit to the **"Vasudhara Milk Processing Plant, MIDC ,Awdhan,Dhule"** [16<sup>th</sup> April 2024]

The total number of students participated : 43

Coordinator: Mr. Dattatray Doifode and Dr. Hitesh Thakare

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## Workshops



**08 Weeks** Hands On Practical Sessions on "Computational Fluid **Dynamics**" [05<sup>th</sup> February 2024 onwards]
Resource Person: Mr. Mohd. Juneduddin, Assistant Professor, Dept. of
Mech. Engg. SVKM's IOT Dhule.
The total number of students participated : 65
Coordinator: Mr. Mohd. Juneduddin

Vivek Vispute (TY) and Deven Wagh (TY) participated in the 24hour hackathon event -Vega 2024 as a Team Gems, organized by the Shah and Anchor Kutchhi Engineeri ng College (SAKEC), Mumbai, Maharashtra



Rupesh Shinde (TY), Nilesh Patil (TY), and Dnyaneshwar Shardul (TY) participated in the 24-hour hackathon event - Vega 2024 as a Team Oreo, organized by the Shah and Anchor Kutchhi Engineering College (SAKEC), Mumbai, Maharashtra



Bhavesh Deore, Kunal Karankal, Pranav Gujar, and Rohit Patil published their book chapter in the book titled Advancements in Materials Processing Technology, Volume 1





Rupesh Shinde (TY) and Nilesh Patil (TY) participated in the Techpreneur and Won Second prize along with the cash prize of Rs. 500 at National level technical event – Technorion 2024, organized by the G. H. Raisoni Institute of Engineering and Business Management, Jalgaon.



Sachin Hiraman Ahire (SY) participated in Cadengers & Roborace and Won Second & Third prize respectively along with the cash prize of Rs. 500 at the National level technical event – Technorion 2024, organized by the G. H. Raisoni Institute of Engineering and Business Management, Jalgaon.



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Chaitanya Padmakar Kapadnis (TY) applied for Copyright of Business proposal on "Anti-AUTO"











**Students Activities** 



Mech-Fest 2024.





Farewell 2024.





Parent-Teacher Meet [8th May 2024]

## **MESA Members**



**Prof. Yogesh Sonawane** Faculty Coordinator



Sr. No.	Name of Students	Designation	Year
1.	Mr. Gunvant Patil	President	Final Year
2.	Ms. Bhumika Patil	Vice-President	Second Year
3.	Ms. Purva Kapade	Secretary	Second Year
4.	Mr. Vinay Bhadane	Treasurer	Third Year

## **ISHRAE Student Chapter**



**Prof. Dattatray Doifode** Faculty Coordinator

Sr. No.	Designation	Name of Member	Year
1.	PRESIDENT	Gunvant Patil	Final Year
2.	PRESIDENT ELCT	Harshit Mahajan	Third Year
3.	SECRETARY	Akansha Patil	Third Year
4.	TREASURER	Vaibhav Patil	Third Year
5.	MEMBER – CWC	Chirag Desale	Third Year
6.	MEMBER – CWC	Aniket Bhokare	Third Year
7.	MEMBER – CWC	Trupti Wagh	Third Year

## **Editorial Members**



**Dr. Md Modassir Hussain** Faculty Coordinator

Sr. No.	Name of Students	Year
1.	Mr. Saurabh Kadam	Final Year
2.	Mr. Rohit Sonawane	Third Year
3.	Mr. Vaibhav Pradip Gurav	Second Year