



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-Spark2.0



**January 2022**



## CHAIRMAN's MESSAGE

### Hon. Shri. Amrishbhai R. Patel

I am happy to see the second edition of newsletter "**Mind Spark 2.0**" June 2022 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 3.0**" June 2022 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 2021-22 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 SAE eBAJA, Aeromodelling etc. Department conducted some student centric training's like **SIMENS and ANSYS etc.** Research papers have been published in the renowned 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 few are having interest to join in PhD program which is a good sign.

## INSTITUTE VISION

“To prepare the students ready with socially sensitive Engineers of Excellence who will grow with the Institute and add value to the Nation”

## INSTITUTE MISSION

“Strive to become one of the Institutions to be globally recognized as a Resource of Excellence focusing on nurturing and developing the Society”

## DEPARTMENT VISION

“Empower the youth through outcome-based quality technical education in a conducive environment for research, innovation & entrepreneurship.”

## DEPARTMENT MISSION

- ❖ To impart outcome-based quality education to the students and enhance their skills to make them globally competitive Mechanical Engineers.
- ❖ To collaborate with industries and academia to facilitate continuous improvement in teaching, learning, research and entrepreneurship along with environmental awareness
- ❖ To provide a participative environment for students and faculty of diverse backgrounds for creative design and developing innovative products.

## PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

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

## PROGRAM OUTCOMES (POs)

- ❖ Engineering graduates will be able to apply the basic knowledge in mathematics, sciences and engineering fundamentals for solving problems in mechanical engineering.
- ❖ Apply knowledge, techniques and skills to design mechanical and thermal systems or processes as per requirements.
- ❖ Demonstrate the ability to design and conduct experiments and standard tests to interpret and analyse data and results.
- ❖ Identify, formulate and design complex Mechanical Engineering problems in their future profession.
- ❖ Select and use modern engineering software tools and equipments to analyse mechanical engineering problems.
- ❖ Appreciate social and cultural values, assess the health, safety and legal issues and practices.
- ❖ Understand the impact of professional engineering solution for sustainable development.
- ❖ Understand the professional as well as ethical responsibilities and norms of different countries.
- ❖ Function effectively within multidisciplinary team as leader or member.
- ❖ Communicate effectively within engineering community and society at large by means of report writing, presentation and documentation.
- ❖ Demonstrate knowledge and understanding of engineering and management principles for effective project management.
- ❖ Educate and clearly understand and implement the value of lifelong learning.

## PROGRAM SPECIFIC OUTCOMES (PSO's)

- ❖ Apply technical knowledge and skills to become employable in engineering industries as well as pursue entrepreneurial and higher study opportunities.
- ❖ Design process plan, process automation and quality assurance systems in industries.
- ❖ Design and analyze various mechanical systems and components as per given specification using engineering knowledge, data books and necessary software. Identify

## FACULTY MEMBERS



**Dr. Nilesh Salunke**  
Principal and Professor



**Dr. Hitesh Thakare**  
HOD and Associate Professor



**Dr. Amol Badgujar**  
Assistant Professor



**Prof. Mohammad Juneduddin**  
Assistant Professor



**Prof. Dattatray Doifode**  
Assistant Professor



**Prof. Yogesh Sonawane**  
Assistant Professor



**Prof. Dhiraj Bhandarkar**  
Assistant Professor



**Prof. Satish Patil**  
Assistant Professor



**Prof. Mahesh Dalwani**  
Assistant Professor



**Prof. Bhushan Behede**  
Assistant Professor



**Prof. Karan Sharma**  
Assistant Professor

## TECHNICAL ASSISTANTS



**Mr. Mahendra Patil**  
Technical Assistant



**Mr. Amol Mahajan**  
Technical Assistant

## WORKSHOP INSTRUCTORS



**Mr. Narendra Patil**  
Welding Shop



**Mr. Mahendra Lohar**  
Machine Shop



**Mr. Ravindra Badgujar**  
Plumbing Shop



**Mr. Mahesh Gaikwad**  
Carpentry Shop



**Mr. Yogesh Chaudhari**  
Fitting Shop

# FACULTY CONTRIBUTIONS

## Faculty publication in Journals :

Sr. No.	Name of Faculty	Title of Paper	Journal Title	Journal ISSN No.
1.	Hitesh Thakare	Application of mixed level design of Taguchi method to counter flow vortex tube	Materials Today: Proceedings	International Conference on Innovation and Application in Science and Technology Jan 2022
2.	Hitesh Thakare	Techno-economic assessment of manufacturing process in small scale industry to evaluate energy saving potential	Materials Today: Proceedings	International Conference on Innovation and Application in Science and Technology Jan 2022
3.	Amol Badgujar	Room Temperature Sputtered Aluminum-Doped ZnO Thin Film Transparent Electrode for Application in Solar Cells and for Low-Band-Gap Optoelectronic Devices	ACS Omega	ACS Omega
4.	Amol Badgujar	Solution-processed CIGS thin film solar cell by controlled selenization process	Materials Today: Proceedings	International Conference on Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering 2022
5.	Yogesh Sonawane	Low Temperature Combustion with Multiple Injection Strategies in Single Cylinder Diesel Engine	IJITEE	International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075
6.	Satish Patil	A Review: Studies On Different Performance Improvement Methods For Battery Thermal Management Systems For Li-ion Battery	IJCRT	International Journal of Creative Research Thoughts (IJCRT) ISSN:2320-2882
7.	Bhushan Behede	Review on nanoporous inorganic desiccant materials in the context of application in rotary dehumidifiers	Materials Today: Proceedings	International Conference on Innovation and Application in Science and Technology Jan 2021

# FACULTY CONTRIBUTIONS

## Faculty Development Programme / STTP Attended :

Sr. No.	Name of Faculty	FDP/STTP/ Training program attended	Resource Person(s) / Agency / Company	Venue	Date
1.	Bhushan Behede	FDP on "NATURAL VENTILATION AND BUILDING DESIGN IN TROPICAL REGIONS"	ATAL Academy	Online	13/09/2021 to 17/09/2021
2.	Dhiraj Bhandarkar	FDP on "DESIGN AND DEVELOPMENT OF ELECTRIC VEHICLE"	ATAL Academy	Online	2021-7-9 to 2021-7-13
3.	Mohammed Juneduddin	FDP on "EMERGING TRENDS IN THE FIELD OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING APPLICATIONS"	ATAL Academy	Online	20/09/2021 to 24/09/2021
4.	Mohammed Juneduddin	FDP on "Internet of Things: Concepts and Implementation"	ATAL Academy	Online	13/12/2021 to 17/12/2021
5.	Mohammed Juneduddin	NITTTR (Module 01 to Module 08)	NITTTR	Online	September 2021
6.	Satish Patil	FDP on "Basics of Electric Vehicles"	ATAL Academy	Online	10/09/2021 to 14/09/2021
7.	Satish Patil	FDP on "Research Areas in Mechanical Engineering"	Sanjivani College of Engineering, Kopergaon	Online	18th October to 23rd October, 2021
8.	Yogesh Sonawane	FDP on "Introduction to Electric Vehicles; Challenges and Opportunities in Future"	ATAL Academy	Online	20/09/2021 to 24/09/2021

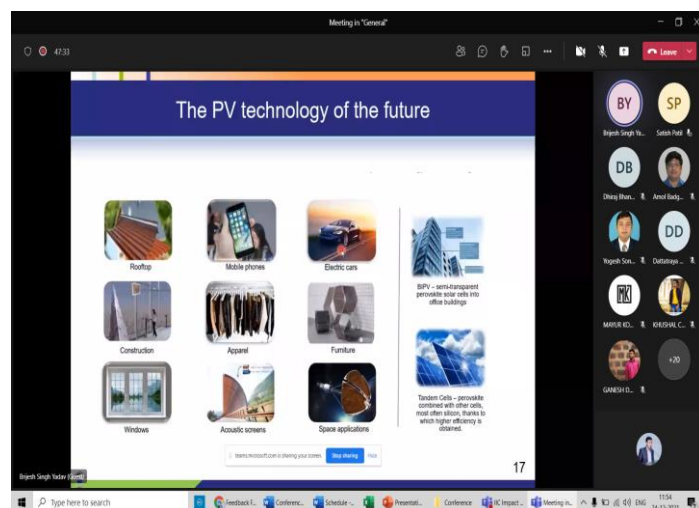
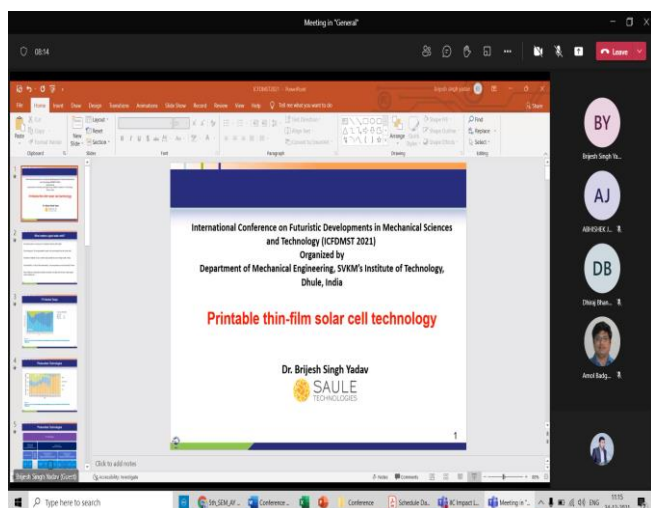
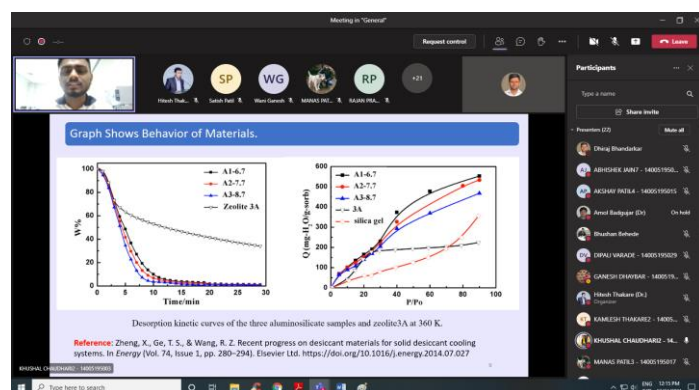
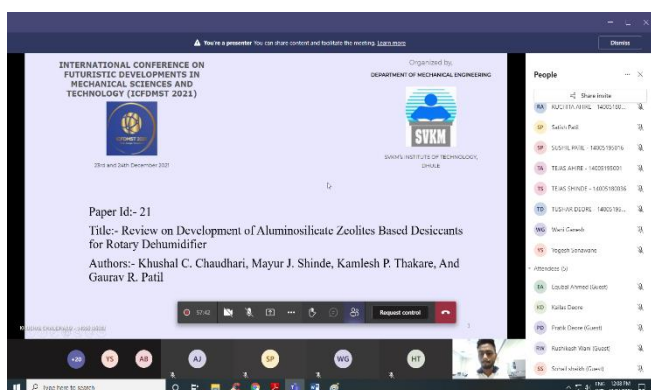
Departmental Conference “**International Conference on Futuristic Development in Mechanical Sciences and Technology ICFDMST 2021**” [23<sup>rd</sup> & 24<sup>th</sup> December 2021]

## Keynote Speakers

- ❖ Dr. Rahul Jagtap Ph.D. (SVNIT Surat)
- ❖ Dr. Brijesh Singh Yadav Ph.D. (IIT Hyderabad)

## Session Chairs

- ❖ Dr. Rahul Jagtap Ph.D. (SVNIT Surat)
- ❖ Dr. Dhiraj Deshmukh Ph.D. (SVNIT Surat)
- ❖ Mr. Ganesh Wani, Hitachi Astemo, Pune



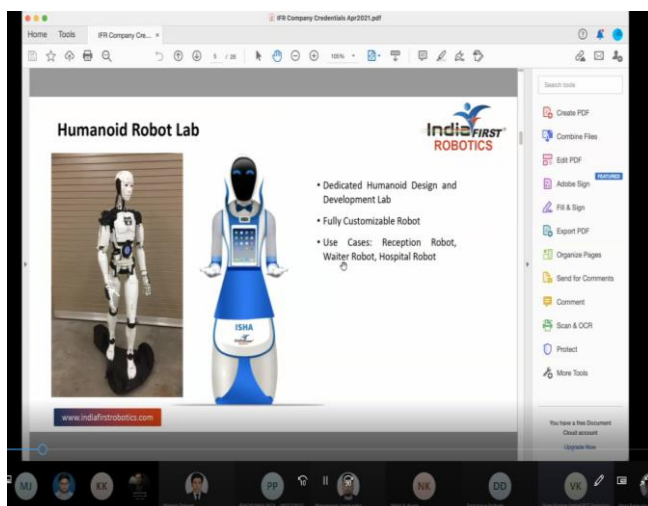
## Expert Talk and Webinars

Expert talk on **“Energy Conservation –Simplified Technical and Financial Analysis.”** [18<sup>th</sup> August 2021]

Resource Person: **Dr. Hitesh Thakare**, BEE Certified Energy Auditor (CEA -27707) and Associate Professor SVKM IOT, Dhule.

The total number of students has participated : **135**

**Coordinator:** Mr. Satish Patil



Online Webinar conducted on the topic **“Robotics and Robotics and Additive Manufacturing”** [18<sup>th</sup> August 2021]

Resource Person: **Mr. Vinay Kunwar** and **Mr. Nikhil Kulkarni**, India-FIRST® Robotics Innovation and Research LLP, Pune

The total number of students has participated :

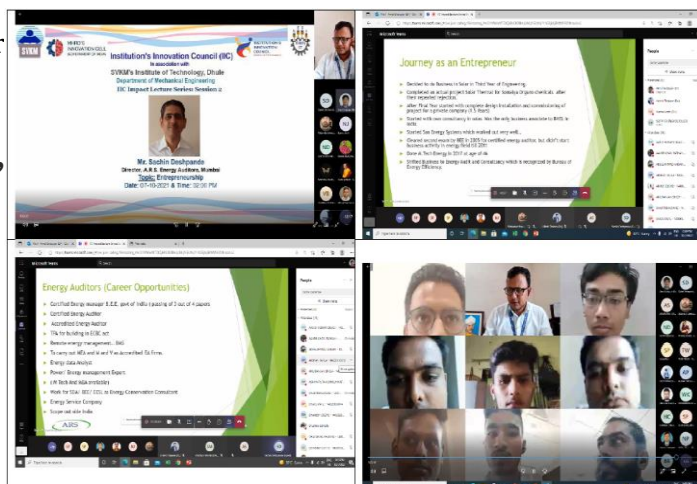
**Coordinator:** Dr. Amol Badgajar

Expert talk on **“Entrepreneurship”** [07<sup>th</sup> October 2021]

Resource Person: **Mr. Sachin Deshpande**, Director, ARS Energy Auditors, Mumbai

The total number of students has participated :

**Coordinator:** Mr. Dattatray Doifode  
Dr. Amol Badgajar



## Expert Talk and Webinars

Expert talk on **“GATE 2022 Preparation for Mechanical Engineering Students”** [28<sup>th</sup> September 2021]

Resource Person: **Mr. Mohan Shinde**, AMVI, RTO, Thane.

The total number of students has participated :

**Coordinator:** Mr. Mahesh Dalwani



Expert talk on **“How to Write Research Paper”** [29<sup>th</sup> November 2021]

Resource Person: **Dr. Hitesh Thakare**, Associate Professor, Dept. of Mech. Engg. SVKM's IOT

Dhule The total number of students has participated : **72**

**Coordinator:** Dr. Amol Badgujar

Expert talk on **“National Pollution Control Day”** [2<sup>nd</sup> December 2021]

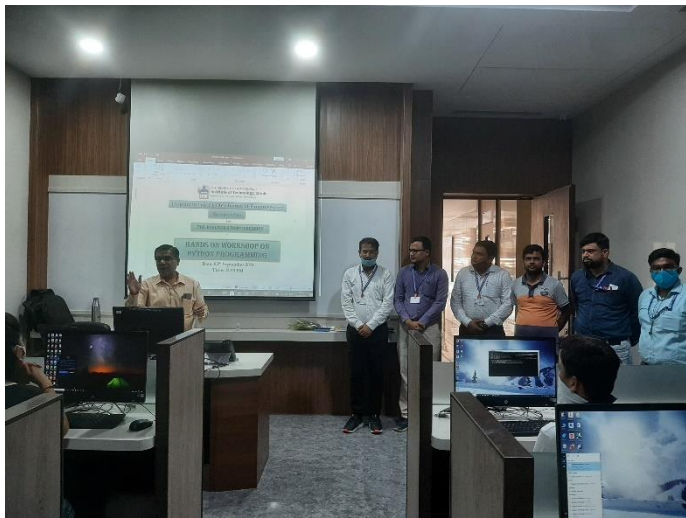
Resource Person: **Dr. Shrikant Randhavane**, Assistant Professor, Dept. of Civil Engg. SVKM's IOT Dhule.

The total number of students has participated : 72

**Coordinator:** Mr. Dattatray Doifode  
Dr. Amol Badgujar



# Workshops



## **One Week Hands On Workshop on “Python Programming”**

Resource Person: **Mr. Mahesh Dalwani**, Assistant Professor, Dept. of Mech. Engg. SVKM's IOT Dhule. The total number of students has participated : **42**

**Coordinator:** Mr. Mahesh Dalwani

## **One Week Hands On Workshop on “Demonstration of 3D Printing Machine” [30<sup>th</sup> December 2021]**

Resource Person: **Mr. Swapnil Potdar**, CEO, Creative 3D Printing Service, Dhule

The total number of students has participated : **46**

**Coordinator:** Mr. Yogesh Sonawane



## **“Campus Credentials Training Program on Aptitude Test Preparation” [22<sup>nd</sup> November 2021]**

Resource Person:

The total number of students has participated : **51**

**Coordinator:** Mr. Mahesh Dalwani

## Industrial Visits



Industrial visit to the “**3D-Printing Lab and CNC-Lab of NMIMS Campus Shirpur**” [18<sup>th</sup> December 2021]

Resource Person: **Dr. Rakesh Chaudhary**, Associate Professor and **Mr. Rushikesh Dandgavhal**, 3D-Printer-Lab In charge, Mechanical Engineering Department, MPSTME-NMIMS Campus, Shirpur  
The total number of students has participated : **30**

**Coordinator:** Mr. Mohd. Juneduddin

Industrial visit to the “**Maharashtra Oil Extractions Ltd., MIDC Avdhan, Dhule**” [10<sup>th</sup> January 2022]

Resource Person: **Mr. Shrikant Wani**, Maintenance Manager, Maharashtra Oil Extractions Pvt. Limited, Dhule

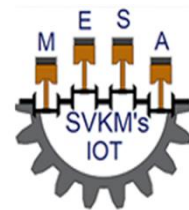
The total number of students has participated : **45**

**Coordinator:** Mr. Dattatary Doifode



# MESA Members

## MESA Formation



**Prof. Yogesh Sonawane**  
Faculty Coordinator

Sr. No.	Name of Students	Designation	Year
1.	Mr. Sudeep Bedmutha	President	Final Year
2.	Mr. Pradyumna Patil	Vice-President	Third Year
3.	Mr. Rushikesh Pawar	Secretary	Second Year
4.	Mr. Ganesh Deore	Treasurer	Second Year

## Editorial Members



**Prof. Dhiraj Bhandarkar**  
Faculty Coordinator

Sr. No.	Name of Students	Year
1.	Mr. Abhishek Jain	Final Year
2.	Mr. Yogesh Mali	Third Year
3.	Mss. Aachal Pardeshi	Second Year
4.	Mss. Akansha Patil	First Year