



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



June 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 2.0**" 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 **Hypermesh and ANSYS etc.** 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 few are having interest to join in 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 & non-conventional 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)

- ❖ 1.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.

FACULTY MEMBERS



Dr. Nilesh Salunke
Principal and Professor



Dr. Hitesh Thakare
HOD and Associate Professor



Dr. Amol Badgajar
Assistant Professor



Prof. Mohammad Juneduddin
Assistant Professor



Prof. Dhiraj Bhandarkar
Assistant Professor



Prof. Satish Patil
Assistant Professor



Prof. Yogesh Sonawane
Assistant Professor



Prof. Mahesh Dalwani
Assistant Professor



Prof. Dattatray Doifode
Assistant Professor



Prof. Bhushan Behede
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 Badgajar
Plumbing Shop



Mr. Mahesh Gaikwad
Carpentry Shop



Mr. Yogesh Chaudhari
Fitting Shop

FACULTY CONTRIBUTIONS

Faculty publication in Journals/Conferences/Book chapters :

Sr. No.	Name of Faculty	Title of Paper	Journal Title	ISBN / ISSN
1.	Dr. Amol Badgajar	Room Temperature Sputtered Aluminum-Doped ZnO Thin Film Transparent Electrode for Application in Solar Cells and for LowBand-Gap Optoelectronic Devices	ACS Omega	2470-1343
2.	Dr. Nilesh Salunke	Solar absorption refrigeration systems use productive thermal storage PCMs: Review	Pratibha: International journal of Science, Spirituality, Buisness & Technology (IJSSBT)	2277-7261
3.	Dr. Amol Badgajar	Monolithic Integration of Cu(In,Ga)Se ₂ Thin Film Solar Modules by all Nanosecond Laser Scribing	Recent Advances in Materials and Manufacturing Technology	978-981-99-2921-4
4.	Mr. Bhushan Behede	Performance Analysis of Desiccant Material Prepared by Simple Mixing of Silica Gel and Calcium Chloride	Recent Advances in Mechanical Infrastructure	2523-3440
5.	Dr. Hitesh Thakare	Application of mixed level design of Taguchi method to counter flow vortex tube	Materials Today: Proceedings	2214-7853
6.	Dr. Hitesh Thakare	Techno-economic assessment of manufacturing process in small scale industry to evaluate energy saving potential	Materials Today: Proceedings	2214-7853
7.	Mr. Bhushan Behede	Review on nanoporous inorganic desiccant materials in the context of application in rotary dehumidifiers	Materials Today: Proceedings	2214-7853

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.	Mr. Dhiraj Bhandarkar	FDP on "Electric Vehicles"	ATAL Academy	Online	09/07/2022 to 13/07/2022
2.	Mr. Bhushan Behede	One Week Online STTP on 'Domains of Academia: Research and Teaching-Learning'	Gujarat Council on Science & Technology, Department of Science & Technology, Govt. of Gujarat	Online	01/03/2022 to 05/03/2022
3.	Mr. Bhushan Behede	One week online STTP on "Numerical simulation application using commercial simulation software"	Department of Mechanical Engineering, D. Y. Patil College of Engineering, Akurdi	Online	21/02/2022 to 26/02/2022
4.	Dr. Amol Badgujar	FDP on " New Era of Manufacturing Challenges and Opportunities"	ISTE	Online	25/07/2022 to 30/07/2022

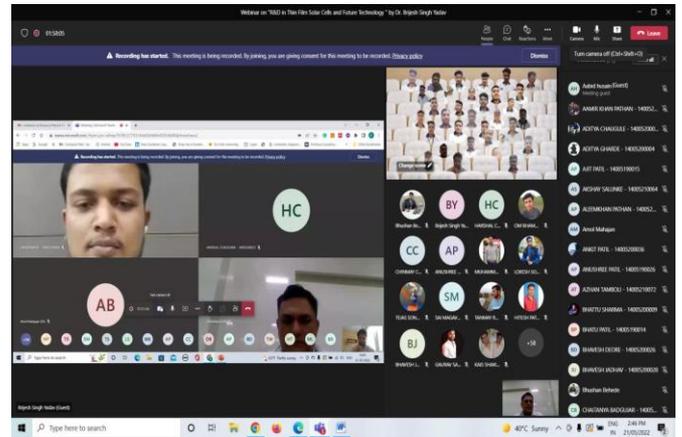
Expert Talk and Webinars

Online Webinar conducted on the topic **“Thin film Solar cell”** [21th May 2022]

Resource Person: **Dr. Brijesh Singh Yadav**, Material Science Technologist, Saule Technologies, S.A., Poland.

The total number of students has participated : 95

Coordinator: Dr. Amol Badgajar



Expert talk on **“CFD Fundamentals and Case Study”** [11th July 2022]

Resource Person: **Dr. Hitesh Thakare**, Certified Energy Auditor, BEE

The total number of students has participated : 41

Coordinator: Mr. Satish Patil

Expert talk on **“Overview of Engine Simulation”** [28th May 2022]

Resource Person: **Mr. Dipak Bhat**, Cummins India Pvt. Ltd.

The total number of students has participated : 49

Coordinator: Mr. Yogesh Sonawane



Industrial Visits



Industrial visit to the “**Nitiraj Industries Pvt. Ltd., Avadhan MIDC, Dhule**” [07th June 2022]

Resource Person: **Mr. Sanjay Mudrak**, Quality Team Leader, Nitiraj Industries Pvt. Ltd.

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

Coordinator: Mr. Dhiraj Bhandarkar

Industrial visit to the “**Maharashtra Oil Extractions Ltd., MIDC Avdhan, Dhule**” [10th 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



Industrial visit to the “**ST Workshop, MIDC Avdhan, Dhule**” [10th June 2022]

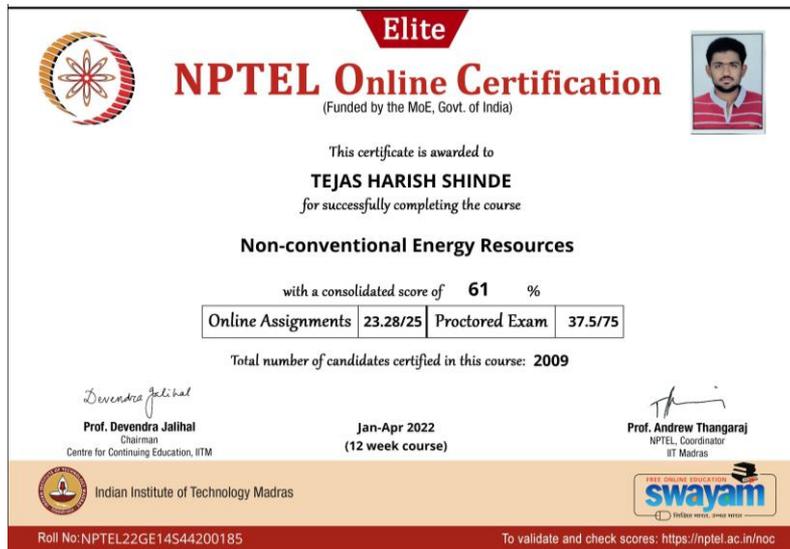
The total number of students has participated : **49**

Coordinator: Mr. Yogesh Sonawane



NPTEL Certification by Student

 <p style="text-align: center;">Elite NPTEL Online Certification <small>(Funded by the MoE, Govt. of India)</small></p> <p style="text-align: center;">This certificate is awarded to NINAD AJAY MUDAWADKAR for successfully completing the course</p> <p style="text-align: center;">Non-conventional Energy Resources</p> <p style="text-align: center;">with a consolidated score of 62 %</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Online Assignments</td> <td>23.6/25</td> <td>Proctored Exam</td> <td>38.25/75</td> </tr> </table> <p style="text-align: center;">Total number of candidates certified in this course: 2009</p> <p style="text-align: center;">  Prof. Devendra Jalihal <small>Chairman Centre for Continuing Education, IITM</small> </p> <p style="text-align: center;"> Jan-Apr 2022 <small>(12 week course)</small> </p> <p style="text-align: center;">  Prof. Andrew Thangaraj <small>NPTEL Coordinator IIT Madras</small> </p> <p style="text-align: center;">  Indian Institute of Technology Madras </p> <p style="text-align: center;">  </p> <p style="text-align: center;"> <small>Roll No: NPTEL22GE14S34200069</small> </p>	Online Assignments	23.6/25	Proctored Exam	38.25/75	 <p style="text-align: center;">Elite NPTEL Online Certification <small>(Funded by the MoE, Govt. of India)</small></p> <p style="text-align: center;">This certificate is awarded to SUMIT GOPAL PATIL for successfully completing the course</p> <p style="text-align: center;">Non-conventional Energy Resources</p> <p style="text-align: center;">with a consolidated score of 64 %</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Online Assignments</td> <td>22.88/25</td> <td>Proctored Exam</td> <td>40.88/75</td> </tr> </table> <p style="text-align: center;">Total number of candidates certified in this course: 2009</p> <p style="text-align: center;">  Prof. Devendra Jalihal <small>Chairman Centre for Continuing Education, IITM</small> </p> <p style="text-align: center;"> Jan-Apr 2022 <small>(12 week course)</small> </p> <p style="text-align: center;">  Prof. Andrew Thangaraj <small>NPTEL Coordinator IIT Madras</small> </p> <p style="text-align: center;">  Indian Institute of Technology Madras </p> <p style="text-align: center;">  </p> <p style="text-align: center;"> <small>Roll No: NPTEL22GE14S43590202</small> </p>	Online Assignments	22.88/25	Proctored Exam	40.88/75
Online Assignments	23.6/25	Proctored Exam	38.25/75						
Online Assignments	22.88/25	Proctored Exam	40.88/75						



Elite
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

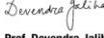
This certificate is awarded to
TEJAS HARISH SHINDE
for successfully completing the course

Non-conventional Energy Resources

with a consolidated score of **61** %

Online Assignments	23.28/25	Proctored Exam	37.5/75
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Total number of candidates certified in this course: **2009**


Prof. Devendra Jalihal
Chairman
Centre for Continuing Education, IITM

Jan-Apr 2022
(12 week course)


Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

 Indian Institute of Technology Madras



Roll No: NPTEL22GE14S44200185

SPOC Appreciation letter from NPTEL




NPTEL CERTIFICATE
OF APPRECIATION

is awarded to

DHIRAJ K. BHANDARKAR

of

SHRI VILE PARLE KELAVANI MANDAL'S INSTITUTE OF TECHNOLOGY

DHULE, MAHARASHTRA

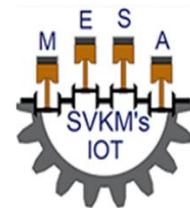
for his/her instrumental role as SPOC for the **SWAYAM-NPTEL** Local Chapter.
Thank you for being NPTEL's brand ambassador at your esteemed institution.


PROF. ANDREW THANGARAJ
NPTEL Coordinator
IIT Madras



Active SPOC based on Performance & Participation of Candidates for the JAN-APR 2022 semester

MESA Members



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. Aanchal Pardeshi	Second Year