



SANDIP FOUNDATION'S
SANDIP INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE ,
NASHIK
DEPARTMENT OF MECHANICAL ENGINEERING
E-BULLETIN

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VISION OF SITRC

**TO BE ACCLAIMED
INSTITUTION FOR
LEARNING AND RESEARCH**

MISSION OF SITRC

**TO IMPART IN-DEPTH TECHNICAL
KNOWLEDGE.**

**TO CREATE CONDUCIVE
ENVIRONMENT FOR RESEARCH,
INNOVATION AND
ENTREPRENEURSHIP.**

**TO INSTILL THE SOCIAL AND
CULTURAL VALUES.**



FROM THE HOD'S DESK

I am happy to learn that Mechanical Engineering Department, Sandip Institute of Technology and research Centre is coming out with the quarterly departmental E-Bulletin. This E-Bulletin will help to share the news, events achievements of the department among alumni. This E-Bulletin will provide an opportunity for the staff and students to showcase their talents in technical writing. I would like to appreciate and congratulate editorial team of the department for their unrelenting efforts in compiling this E-Bulletin.

FROM THE EDITOR'S DESK

It gives us an immense pleasure to introduce this E-bulletin of Mechanical Engineering Department. Proper communication plays a vital role in institution's development. This E-bulletin will serve to reinforce and allow increased awareness, improved interaction and integration among all of us. This E-bulletin will be a medium to provide proper acknowledgement and respect all of these efforts and its results.

VISION OF THE DEPARTMENT

To achieve excellence in the domain of Mechanical Engineering by inculcating a culture of learning and research.

MISSION OF THE DEPARTMENT

- To nurture the students of Mechanical Engineering to be competent, motivated and ethical professionals.
- To foster research, innovation and entrepreneurship skills leading to employable and self-reliant technocrats.
- To groom the socio-techno potential for up-liftment of society.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)

- PEO 1: To pursue and establish the career in Mechanical Engineering.
- PEO 2: To demonstrate personal growth by pursuing higher studies, professional development course and/or engineering certifications.
- PEO 3: To inculcate entrepreneurship skills and nurture the ethics in the domain.

PROGRAMME OUTCOMES

1. **Engineering Knowledge** – Apply knowledge of mathematics, science and engineering to solve the real life problems in Mechanical systems. An ability to analyze and interpret data.
2. **Problem Analysis** – Identify, formulate and solve Mechanical Engineering problems in thermal, manufacturing and machine design and conduct new experiments.
3. **Design/development of Solutions** – Design systems like thermal, robotics, mechatronics and machines within realistic constraints.
4. **Conduct investigations of complex problems** – Design and conduct experiments to interpret data and analyse the results.
5. **Modern Tool Usage** – To develop awareness and work on emerging technologies like CAD/CAM software's, Robotics.
6. **The engineer and society** – Understand the impact of an engineer in general and Mechanical Engineering knowledge for welfare of society in particular.
7. **Environment and Sustainability** – Develop or modify eco-friendly and highly reliable as well as sustainable systems.
8. **Ethics** – Take professional decision with a sense of ethical responsibility.
9. **Individual and team work** – Function effectively as an individual and as a member or leader in multidisciplinary and/or cross cultural teams.
10. **Communication** – Communicate effectively for achievements of goals.
11. **Project Management and Finance** – Execute disciplinary and interdisciplinary projects in day-to-day life.
12. **Life-Long Learning** – Imbibe habit of lifelong learning.

ABOUT THE DEPARTMENT

The department is having highly qualified, experienced & motivated faculty members. The department has laboratories with latest testing facilities like multifuel VCR engine, computerized UTM (capacity 100 tonnes), computerized diesel engine test rig & exhaust gas analyzer for Engines. The CAD Centre of the department armed with latest hardware & software like Pro-E wildfire-5, ANSYS, Hypermesh, Mastercam, and AutoCAD etc. Department also have MOU with Altair Engg. Corporation (India) for conducting training on HyperMesh, Radioss (Linear), HyperForm, HyperCrash etc. The strength of department enables to offer the consultancy in all fields related to Mechanical Engineering.

Professor and Head

DEPARTMENTAL ACTIVITIES

International workshop on “Thermal Engineering: Theory and Applications” Sponsored by Savitribai Phule Pune University, Pune & in association with ARAI, Pune: PCRA; SAE-India; ISHRAE

This workshop aims to bring together the leading academicians, scientists, and researchers to exchange and share their experiences and knowledge on the aspects of Thermal Engineering like IC Engines, alternative fuels, Energy, Power Engineering, Applications of Fluid Dynamics etc. It also provides a premier platform for young engineers, researchers and educators to learn and discuss the most recent innovations, trends and concerns as well as their applications in solving real-life and industrial problems in the process of achieving individual, collective and societal goals.





EPOCH-2020

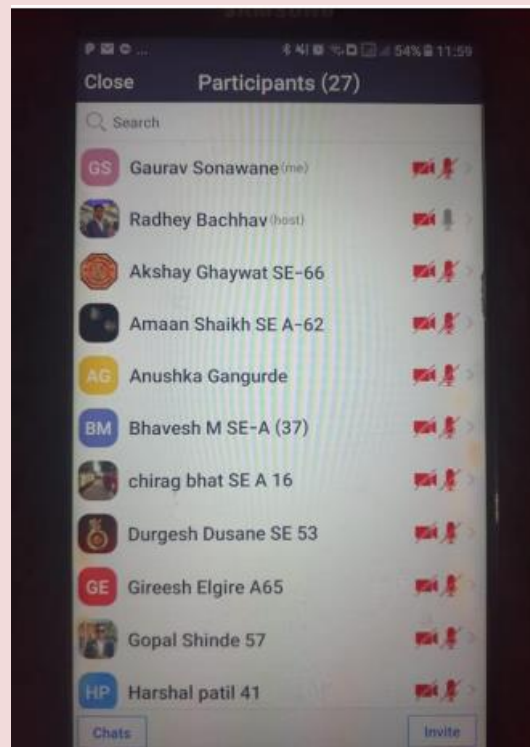
IEI Student's Chapter Mechanical Engineering Department and Mechanical Engineering Students Association(MESA) organised EPOCH-2020 National Level Technical and Non-Technical Event on 24th and 25th February 2020 at Mechanical Engineering Department of Sandip Institute of Technology and Research Centre(SITRC). The events such as Barian war, CAD war, Robo Race, Haunted Cricket, Engineers Got Talent, Chess, Table Tennis, Carom, Art and Craft, Project Competition etc. Total Thirteen Events @ 500+ Students from all Engineering colleges participated in this two day event. On this occasion, Principal Dr.S.T.Gandhe, Dean Administration Dr.M.M.Patil, HOD, Mechanical Dr.P.R.Baviskar, Dean Academic Dr. Prakash Burade, HOD of all Department, Staff Coordinator: Prof. J.N.yadav (IEI Student Chapter) Staff Coordinator: Prof. S.D.Katkade (MESA), Sponsor and Faculty were present for inaugural function of EPOCH-2020. Under this event more than 500 student were participated from Engineering Colleges form all over Maharashtra. For this event winning student were awared withn cash prize, a trophy and certificate, total worth of Rupees 200000/- amount.





A video lecture during lockdown period on Non-ferrous alloys, a topic from Engineering Metallurgy for Second Year Mechanical Engineering Students of SITRC, Nasik

Department of Mechanical Engineering organized a video lecture during lockdown period on Non-ferrous alloys, a topic from Engineering Metallurgy for Second Year Mechanical Engineering Students of Sandip Foundation. This video lecture on Engineering Metallurgy for Second Year Mechanical Engineering Students of Sandip Foundation delivered by alumni Master Radhey Bacchav, RWTH University, Aachen, Germany and Prof. Gaurav Sonawane. Radhey Bacchav is pursuing Masters in Metallurgy (MS) at RWTH University, Aachen, Germany. He addressed to students that how non-ferrous alloys are different from ferrous alloys. Moreover, the classification and properties of different non-ferrous alloys. Students were also guided for how to select a nonferrous alloy for a particular application.



Industrial Visit to Sahyadri Farm, Mohadi

Industrial visit to Sahyadri Farm, Mohadi was organized for the Third Year Mechanical Engineering Students. Total 140 Students and 05 Staffs Members were present for the plant visit. The Head of Sahyadri Farm, permitted to visit their plant by considering the academic importance and practical exposure to students for Refrigeration & Air Conditioning Subject. As a part of academic, it is mandatory to conduct industrial visit to a Cold Storage according to T.E. Mechanical syllabus, University of Pune. The plant Engineer of Sahyadri Farm guided our students during plant visit, they had explained in detail working of various production units such as processing & packing of grapes, vegetables & fruits, processing & preparation of pulp, jam & ketchup. During the entire plant visit they also give the detailed information regarding the technical specification of the various processes & equipment involved in entire

working of the plant. During Plant visit, Plant Engineer had elaborated the different steps involved in working of plant such as loading, precooling, shifting to room of cold storage, packing & delivery of products etc. This industrial visit was a very successful and students will have definitely an added advantage of practically observing the process.



Workshop on writing accurate and impressive reports swiftly using various functions in MS-Word

Usually, after putting a lot of hard work in writing a report, the next gruelling activity is to prepare the table of content, list of figures, list of tables and manage the references. Often authors prepare them manually which is time consuming, tiresome and most importantly it may lead to errors. This workshop conducted on the 9th and 11th of April, introduced the participants to various tools available in MS Word to prepare these lists automatically to improve accuracy of the report and to save the time.