



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. The strength of department enables to offer the consultancy in all fields related to Mechanical Engineering.

Professor and Head

Departmental activities

Guest Lectures – “Higher Level Industrial Automation with Pneumatics”

Indian manufacturing industries nowadays have to compete with the industries across the globe. Therefore, the cost effectiveness without sacrificing the quality of the service and product becomes serious challenge. Automation of certain services and manufacturing process could maintain productivity as well as quality consistently. With thrust to encourage students to opt projects in industrial automation, an expert talk was organized. Invited speaker Mr. Nachiket Joshi from Janatics situated at Coimbatore delivered a presentation on the world of pneumatics. He took the students through basic notations used for different components used in pneumatic applications. First simple automation achievable for cutting applications was demonstrated. Then fully automated systems using twin double acting pneumatic cylinders were shown through animation. At the last magnificent use of pneumatic cylinders for grain sorting as per quality was discussed. The application was demonstrated through analogy of playing Piano using 68 parallel pneumatic cylinders operating 68 keys to which audience applauded appreciating the strength of pneumatic system.



AutoCAD and CATIA Training in Association with Nashik Engineering Cluster

Sandip Institute of Technology and Research Center Signed a MOU with Nashik Engineering Cluster in February 2017 and this is the first activity initiated after the MOU. The Course was conducted in association with NEC and TATA Trust. The Course started with an objective to increase proficiency of students with latest CAD Technology to make them compatible with current world. The Course was coordinated by Prof. D. R. Satpute with support of Dr. S. T. Gandhe (Principal, SITRC), Dr. P. R. Baviskar (Dean Academics), Dr. M. M. Patil (Head, Mech. Dept.), Prof. V. A. Kolhe, Prof. A. S. Relkar and all the teaching and non-teaching faculties of Mechanical Engineering Department.



Staff Achievements

- Prof. V. A. Shaikh Attended three days workshop on “Applications of FEM in Mechanical Engineering” from 11-13 Jan. 2016.

MoU

- Department of Mechanical Engineering successfully coordinated formation of Memorandum of Understanding [MoU] with NEC, Nashik