



MECHANICAL NEWSLETTER

2024-25

Mechanical Engineering Department, S.A.T.I. Vidisha

At a glimpse

- Shining stars of Mechanical Engineering
- BIS competition and achievements
- NPTEL certifications
- Industrial exposure visit
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Shining stars of Mechanical Engineering



GATE - 2025

GRADUATE APTITUDE TEST IN ENGINEERING 2025	
अभियांत्रिकी स्नातक अभिक्षमता परीक्षा २०२५	
Organizing Institute: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE	
SCORE CARD	
Name of the Candidate	DUSHYANT DEV SINGH CHANDEL
Name of the Parent/Guardian	RAMRAJ SINGH CHANDEL
Registration No.	ME25S33074037
Date of Birth	July 3, 2002
Test Paper	Mechanical Engineering (ME)
Date of Examination	February 2, 2025
GATE Score	625
Marks out of 100	62.33

Dushyant Dev Singh Chandel (final year-Mechanical Engineering) has secured AIR 1930 with a score of 625 in GATE-2025. Dr. Pankaj Agarwal (HOD, ME) and all faculty members congratulated him for his outstanding performance in this prestigious examination.

Students of Mechanical Engineering actively participated in all the activities organized in and off the institution all throughout the year. The major activities include the participation of students in Technovision-2025, Vigyan Mela, Samrat Utsav 2025 and many more. The students presented their research papers and research posters at Technovision, while in Vigyan Mela at Bhopal, the team led by final year student Abhijeet Singh won excellent prizes. The students have enthusiastically worked on their major projects showcasing their skill of product development in the fields of Robotics, IoT and Electric vehicles. A group under guidance of Dr. R.M. Saxena and led by Abhijeet Singh developed Agri-bot navigation system for detection and eradication of weeds in croplands.

Internship program & Industrial Visit

An Inhouse internship was conducted for students in collaboration with Indo- German tool room ,Indore. The internship was coordinated by Prof. N. Sen and, focused on CNC milling and part programming. The training was conducted to provide knowledge on high-tech machining processes. Th students were awarded with certificates by our hon'ble Director, Dr. Y.K. Jain on completion of the training.



An industrial visit to Bansal TMT in Mandideep , Bhopal was conducted by the department in collaboration with Bureau of Indian Standards, for students of 2nd and 3rd year on 31st august 2024. Students gained insights on how an industry function its production and management. They came to know about iron bars and learned a lot about industries.

NPTEL Certifications



- Mr. Nikhil Mohan Vyas, (Assistant Professor) became topper in a NPTEL courses: " Data enabled Tribological Engineering: From experiments to predictive models". Earlier also he earned topper certificate in course "Mechanics of fibre reinforced polymer composite structures".
- Mr. Vyas was also offered to join IIT Madras under guidance of these course instructing professors for NPTEL winter internship program 2024 for his achievements.
- Mr. J.P. Shakya (Assistant Professor) became NPTEL star.
- Ms. Srushti Gangane and Mr. Samarth Bhalerao, VI semester students of department also received NPTEL certifications with flying colors.
- Dr. K.K. Sharma (Assistant Professor) and Mr. Pankaj Sonkusare (Assistant Professor) also received NPTEL certifications with excellent percentage in their respective courses.

Ideation workshop and FDP

The department collaborated with other departments of institute to organize Ideation workshop and FDP. The event "Ideation workshop" was organized to groom the engineering students for empowering them with skills of Artificial Intelligence (AI), the Internet of Things (IoT), Cybersecurity and, Web Development. The FDP on "Future Technologies held between 17th - 21st February 2025 to explore emerging advancements in technology across various domains, fostering skill enhancement among faculty members. The program features sessions on topics, including: Project Development, IoT Devices, 3D Printing, Electric Vehicles, PCB Fabrication.

Recent Placements - 2024-25 Batch

The following Students of the Mechanical Engineering Department placed recently

- **VE Commercial Vehicles** : Nikhil Shukla
- **Learning Routes** : Abhijeet Singh
- **Skill Forge** : Kuljeet singh, Nikhil Shukla, Laxmi Narayan Lodhi, Abhay Pratap Singh, Ritik mishra, Anamay Tiwari, Rohit Raikwar, Sourabh tyagi
- **Teachnook** : Abhijeet Singh, Ankur Sahu
- **Acadomer** : Laxmi Narayan Lodhi, Raja Shrivastava, Ritik Mishra
- **QH Telbroas**: Abhishek kumar patel, Nidhi Rathoriya, Raksha Baghel, Santram Ahirwar, Adarsh golait, Raja Shrivastava, Pavan , Sourabh Singh Thakur, Devendra meena, Neeraj Kumar Rai, Priyanshu Goswami, Abhimanyu chaubey, Aditya Sirbhaiya, Pranshu Mishra, Anuj Dangi, Harshit Tiwari, Sourabh Dwivedi
- **HEG** : Pavan , Ritik mishra, Rohit Raikwar
- **Liugong Pvt. Ltd.** : Ankur Sahu, Abhijeet Singh
- **Knack Tech** : Raja Shrivastava
- **Meghna Engineering** : Saurabh Dwivedi, Adarsh Golait, Gagan Patankar

"Bridging the Skill Gap: Strengthening Core Engineering for India's Manufacturing Future"

The projected shortage of skilled professionals in core engineering disciplines could have significant consequences. As manufacturing processes become more advanced and technology-driven, the demand for engineers capable of designing, implementing, and maintaining these systems will rise. A deficiency in qualified experts could result in slowed industrial growth, increased dependency on imports, and a widening skill gap.

As India strives to establish itself as a global manufacturing powerhouse, the role of core engineering fields becomes even more critical. The looming shortage of specialized engineers threatens the sector's progress. By balancing traditional engineering disciplines with emerging technologies such as Artificial Intelligence (AI) and Machine Learning (ML), India can develop a workforce that is both highly skilled and adaptable to evolving industrial needs. Taking proactive measures to address this issue will ensure the long-term growth of the manufacturing sector, fostering economic development and job creation.

Dr. C.P. Singh

Research Publications

- Pankaj Sonkusare, Shri Krishna Dhakad, Pankaj Agarwal, & Ravindra Singh Rana, (2024), "Experimental Analysis Of Aluminium Metal Matrix Composites Reinforced With Different Particles Through Ultrasonic Stir Casting Process: A Review", Journal of Engineering and Technology Management, vol.74, pp. no. 1076-1087, Elsevier, ISSN no. 1879-1719, <https://doi.org/20.14118/v74.2024.102326>.
- Pankaj Sonkusare, Ravindra Singh Rana, Pankaj Agarwal, & Shri Krishna Dhakad, (2024), "Exploring the Mechanical and Metallurgical Dynamics of Hybrid Reinforced Aluminium metal matrix composites", Journal of Engineering and Technology Management, vol.74, pp. no.1134-1159, Elsevier, ISSN no. 1879-1719, <https://doi.org/20.14118/v74.2024.102329>.
- Kamlesh kumar Sharma, Sanjay katarey, "Experimental Analysis on Performance of a Forced Draft and Natural Draft Counter Flow Cooling Tower", Journal of Engineering Technology and Management, (Dec 2024), vol.74, pp. no. 1181-1185. <https://doi.org/20.14118/v74.2024.102332>
- J.P. Shakya, C.P. Singh, Shilpi Tomar, Shakya, Vikas Shrivastava & Pradeep Singh (2024). Effect of Co on mechanical and electrochemical properties of powder synthesized cellular Ti-Al alloy. Advances in Materials and Processing Technologies, 11(1), 1-21. <https://doi.org/10.1080/2374068X.2023.2293346>
- Pankaj Sonkusare, Shrikrishna Dhakad, Pankaj Agarwal, & Ravindra Singh Rana, (2024). Advancing Corrosion Resistance and Micro-hardness in 6061 Aluminium Alloy through Friction Stir Surface Processing. International Journal of Innovative Technology and Exploring Engineering. 13. 23-33. 10.35940/ijitee.A8065.13060524.
- Vyas N.M., Yadav Y.K., Dixit S., Katarey S., & Manoria A. (2025). Green Tribology of Biocomposites Fabricated with Bast Fibre Reinforcement in Different Polymeric Matrix: A Review. Advances in Science, Technology & Innovation. Springer, Cham. https://doi.org/10.1007/978-3-031-73816-6_21

Activities of BIS club of Mechanical Engineering

The BIS club of Mechanical Engineering organized various activities such as quiz competitions, standard writing competition, reel making competition, under the leadership of Dr. Pankaj Agarwal (HOD, ME) and Dr. Ashish Manoria (Mentor, BIS club ME). These activities were organized and winners were awarded with memento / rewards for their achievement by hon'ble Director, Dr. Y.K. Jain. More of such technological activities will be held regularly aiming towards all round growth of students. The students not only learnt about the crucial importance of standardization in the field of technology; but also groomed their interpersonal skill through these activities. Dr. Pankaj Agarwal (HOD, ME) motivated students to keenly participate in such activities, so that they can rigorously work on their personality development, which would surely act as an add-on to their technical knowledge and, may reflect as a remarkable contributor fetching assurance of selection during placements.

OUR TEAM - MECHANICAL NEWSLETTER

Advisor:	Faculty Coordinator	Faculty Co-coordinator	Editors:
Dr. Pankaj Agarwal Professor & Head, MED.	Dr. C.P. Singh Asst. Professor, MED.	Prof. Nikhil Mohan Vyas, Asst. Professor, MED.	Ms. Srushti Gangane (3rd Year) Mr. Samarth Bhalerao (3rd year)