

# NEWS LETTER

2023-2024  
VOLUME 5

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## ABOUT MECHANICAL ENGINEERING DEPARTMENT

- The Department of Mechanical Engineering is the major and oldest departments of the institute which started functioning with undergraduate program in 1956. Since then the department has registered continuous growth in all directions.
- Advanced subjects such as Mechatronics, vibration and noise control, Artificial Intelligence, Robotics, Data Science, Finite Element Methodology, CFD, and computer aided design have been introduced as compulsory/elective subjects in the undergraduate studies.
- At present, the department has 15 laboratories for U.G. with latest experimental facilities, and laboratories are under constant development with advanced experimental facilities. The department is also offering three P.G. courses one in Mechanical Engineering Design and one in Thermal Engineering and other in CAD/CAM/CAE. Four laboratories have been developed for conduction of experiments at postgraduate level.
- Students present research and review papers in various seminars and conferences and they have also won prizes in the institutions of repute like IITs, iisc, nits etc.

## HOD'S MESSAGE



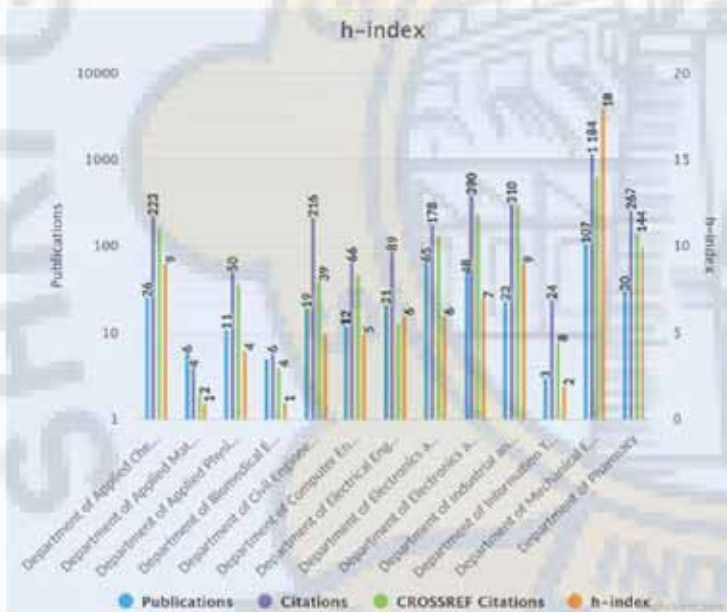
At the outset, I wish to extend my best wishes and congratulate the editorial team for publication of the newsletter of the department. The newsletter is the medium to bring department academic, research and cocurricular activities together in a compiled form and to analyse progress of the department in present and pave the way to plan for betterment in future. The newsletter apart from being a window to the various activities of the department is also a platform and opportunity to showcase achievement and creativity of students and faculty members of the department. The newsletter encourages and motivates us to move ahead with lessons of the past. This edition of Jan-June 2024 session giving very enthusiastic picture of various activities including research publications, testing and consultancy, interactions with Alumni of the department, student club Yantriki activities, students achievements in national events, parents online meeting, plantation by faculty members. I hope these activities will be continued in coming sessions in a broad spectrum. Once again I congratulate the whole team of editorial board of the newsletter and faculty members for extending cooperation.

## FACULTY ACTIVITIES

## PAPER PUBLICATIONS

Some recently published research article by faculty members are listed below:

1. U.S. Gupta, **S. Tiwari**, and U. Sharma, Cold glow discharge nitrogen plasma treatment of banana and sisal fiber for mechanical and surface characterization improvement. Journal of the indian academy of wood science, 2023. Vol. 20(1): p. 37-50.
2. V. Singh, P. Gangsar, **R.K.porwal**, and **A. Atulkar**, Artificial intelligence application in fault diagnostics of rotating industrial machines: a state-of-the-art review. Journal of intelligent manufacturing, 2023, Vol.34(3), 931-960.
3. U S Gupta, **Sudhir Tiwari**, Mechanical and surface characterization of sisal fibers after cold glow discharge argon plasma treatment, Biomass Conversion and Biorefinery, 2024, Vol. 14, 9163–9177.
4. U S Gupta, **Sudhir Tiwari**, Uttam Sharma, Influence of low-pressure Ar plasma modification of Musa sapientum banana fibers on banana fiber reinforced epoxy composite, Composite Interfaces 2023, Vol. 30 (8), 877–898,
- 5 **Shubham Jain** and **Anil Mulewa**, Experimental Analysis of Surface Roughness Optimization of EN19 Alloy Steel Milling by the Cuckoo Search Algorithm. International Journal of Experimental Research and Review, 2024, Vol. 38, 93-101.



- The h-index captures research output based on the total number of publications and the total number of citations to those works.
- This bar graph shows the highest citations, publications and h-index by Mechanical Engineering Department.

## PATENT

Dr. Sumer Singh Patel received a patent with patent number 495778 titled 'Apparatus for increasing the convective heat transfer coefficient and thermo-hydraulic performance of flat plate solar air heater' for a period of 20 years from the 13th day of July 2018 With the provisions of the Patent Act 1970.

**»»» TESTING AND CONSULTANCY**

Various departmental laboratories like Fluid Mechanics and Hydraulic Machines Laboratory, CAD-Project Lab, Material Testing Laboratory, Vibration and Noise Control Laboratory, Materials Science and Mechanical Metallurgy Laboratory are available for testing and consultancy facilities. Details of the testing/consultancy by faculty members are below :

Name of the faculty consultant or trainer	Organization to which consultancy or corporate training provided	Dates/duration of consultancy	Amount generated in INR
Dr.B.S.More and Dr.P.Ganai	L&T Indore Kalisindh Project	02-06-2023 (1 Week)	203550
Dr.B.S.More and Dr.P.Ganai	Bermad India Pvt Ltd	05-06-2023 (1 Week)	2036
Dr.B.S.More and Dr.P.Ganai	Bermad India Pvt Ltd	07-06-2023 (1 Week)	8000
Dr.B.S.More and Dr.P.Ganai	Bermad India Pvt Ltd	07-06-2023 (1 Week)	14400
Dr.B.S.More and Dr.P.Ganai	Bermad India Pvt Ltd	07-06-2023 (1 Week)	72000
Dr.B.R Rawal, Dr.V. Pare	G.M. Engineering Pvt. Ltd. Rajkot	25-08-2023 (1 Week)	173880
Dr.B.S.More and Dr.P.Ganai	Starling Associates Pvt Ltd	01-09-2023 (1 Week)	236000
Dr.Manoj Chouksey	NVDA	31-10-2023 (1 Week)	35400
Dr.S.Tiwari and Dr.M.Chouksey	NVDA	10-11-2023 (1 Week)	135700
Dr.Manoj Chouksey	NVDA	15-02-2024 (1 Week)	44781
<b>TOTAL</b>			<b>1265660</b>

**PLACEMENT OF FINAL YEAR STUDENTS**

- More than 30 students have been placed in around 15 reputed companies.
- The list of students employed and their details are as below:



**DEPARTMENT OF MECHANICAL ENGINEERING**

S.No.	Enrollment #	Student Name	Company Name
1	0801IP201035	Khushi Patel	Tata Technologies Ltd (Velocity Program)
2	0801IP201047	Nidhi Chawla	Bridgestone India Pvt Ltd
3	0801IP201048	Nikhil Gehi	PharmaACE Analytics Pvt Ltd
4	0801IP201049	Osheen Sharma	Tata Technologies Ltd (Velocity Program)
5	0801ME201003	Aakash Kumar Mishra	Havells India Ltd
6	0801ME201009	Animesh Kumar Jain	Quantiphi Analytics Solutions Pvt Ltd
7	0801ME201028	Dhananjay Srivastava	Adani Enterprises Ltd (Adani Group)
8	0801ME201038	Jay Gurjar	CG Power and Industrial Solutions Ltd
9	0801ME201039	Jay Shinde	ThyssenKrupp Industries India Pvt Ltd
10	0801ME201040	Jayesh Kethwas	GreyB Research Pvt Ltd
11	0801ME201043	Khushi Pandey	Tata Technologies Ltd (Velocity Program)
12	0801ME201046	Krishnagopal Gupta	ConsultAdd Services Pvt Ltd (Management Trainee Engineer)
13	0801ME201047	Kshitij Shrivastava	PharmaACE Analytics Pvt Ltd
14	0801ME201050	Laksh Mangwani	ConsultAdd Services Pvt Ltd (Management Trainee Engineer)
15	0801ME201054	Mohit Bidwai	ConsultAdd Services Pvt Ltd (Management Trainee Engineer)
16	0801ME201058	Nikhar Gupta	GreyB Research Pvt Ltd
17	0801ME201061	Niyati Jawariya	Renishaw Metrology Systems Ltd
18	0801ME201062	Pooja Rajpoot	Tata Technologies Ltd (Velocity Program)
19	0801ME201072	Rigved Pandya	Asian Paints Ltd
20	0801ME201077	Sanjana Kanungo	DCM Shriram Ltd
21	0801ME201078	Sanjay Soni	Quantiphi Analytics Solutions Pvt Ltd.
22	0801ME201079	Sanya Jaiswal	Tata Technologies Ltd (Velocity Program)
23	0801ME201081	Shabbir Zaki	ConsultAdd Services Pvt Ltd.
24	0801ME201083	Shashwa Chouhan	ThyssenKrupp Industries India Pvt Ltd
25	0801ME201084	Shreshth Chandra	JK Cement Ltd
26	0801ME201088	Shweta Patel	Tata Technologies Ltd (Velocity Program)
27	0801ME201093	Vaibhav Asati	Adani Enterprises Ltd (Adani Group)
28	0801ME201095	Vikash Singh	CG Power and Industrial Solutions Ltd
29	0801ME201096	Virendra Chouhan	Adani Enterprises Ltd (Adani Group)
30	0801ME201097	Vishal Saxena	ThyssenKrupp Industries India Pvt Ltd
31	0801ME201101	Yash Sharma	Shakti Pumps (India) Ltd
32	0801ME213D02	Chandra Shekhar Sahu	Asian Paints Ltd
33	0801ME213D04	Geetansh Soni	DCM Shriram Ltd

»» GATE 2024 RESULTS

Final year students of mechanical engineering department cracked Gate 2024 in ME branch. The details of some students are following:

Name of the student	Enrollment no.	Gate Score out of 1000	GATE marks out of 100	Rank
Niyati Jawariya	0801ME201061	498	40.67	3159
Shruti Garg	0801ME201085	457	37.33	4058
Jay Gurjar	0801ME201038	355	29	7811
Nripendra Prajapati	0801ME191061	339	27.67	8778

»» EXIT MEETING 2024 WITH FINAL YEAR STUDENTS

An exit meeting between college students and faculty, often referred to as an exit interview or final meeting, can be an important opportunity to reflect on students' experiences, gather feedback, and provide closure as they exit the institution. The exit meeting of the batch of 2020-24 final year students of the Department of Mechanical Engineering was held on 2 May 2024.



- TPO is addressing the mechanical students for their career awareness.

»» ALUMNI MEET

ALUMNI SECTION

Alumni interactions are important for maintaining a strong network, fostering community, and enhancing the institution's reputation and resources. Miss. Nupur shrivastav & Mr. Ridhish pathak of Batch 2013 met with the seniour faculty members.

Shri Arun Dalaya visited the department on 24/4/24. He is an alumni of the 1983 batch. He started his career from BARC Mumbai with wide experience in steam turbine functioning





## DEPARTMENTAL NEWS

### »» INDUSTRY VISIT

Embarking on an industrial visit is like stepping into a world where the gears of innovation churn tirelessly, shaping the products and processes that define modern civilization. Recently, students from Department of Mechanical Engineering were privileged to partake in such an expedition, delving deep into the heart of industrial prowess.



The visit commenced with a palpable sense of anticipation as the students arrived at the gates of Auto Cluster Pithampur, a bastion of technological ingenuity renowned for its groundbreaking contributions to Automotive Research and Development and Testing. As they stepped onto the Test facility floor, the air was charged with the hum of machinery and, instantly immersing them in the manufacturing milieu. In the autocluster students saw the various m/c and their operations such as : Surface grinder, cnc milling, turning, radial drilling, lathe, face cutter, slotter, horizontal milling, cylindrical grinder, plane milling, bend saw, spot welding, mechanical, hydraulic press and EDM.



As the day drew to a close, the students emerged from the industrial crucible, their minds brimming with newfound knowledge and admiration for the marvels they had witnessed. For them, the industrial visit was not merely an excursion, but a journey of enlightenment, offering a glimpse into the inner workings of the modern world. It was an experience that transcended the boundaries of the classroom, igniting a passion for innovation and discovery that would shape their future endeavors.

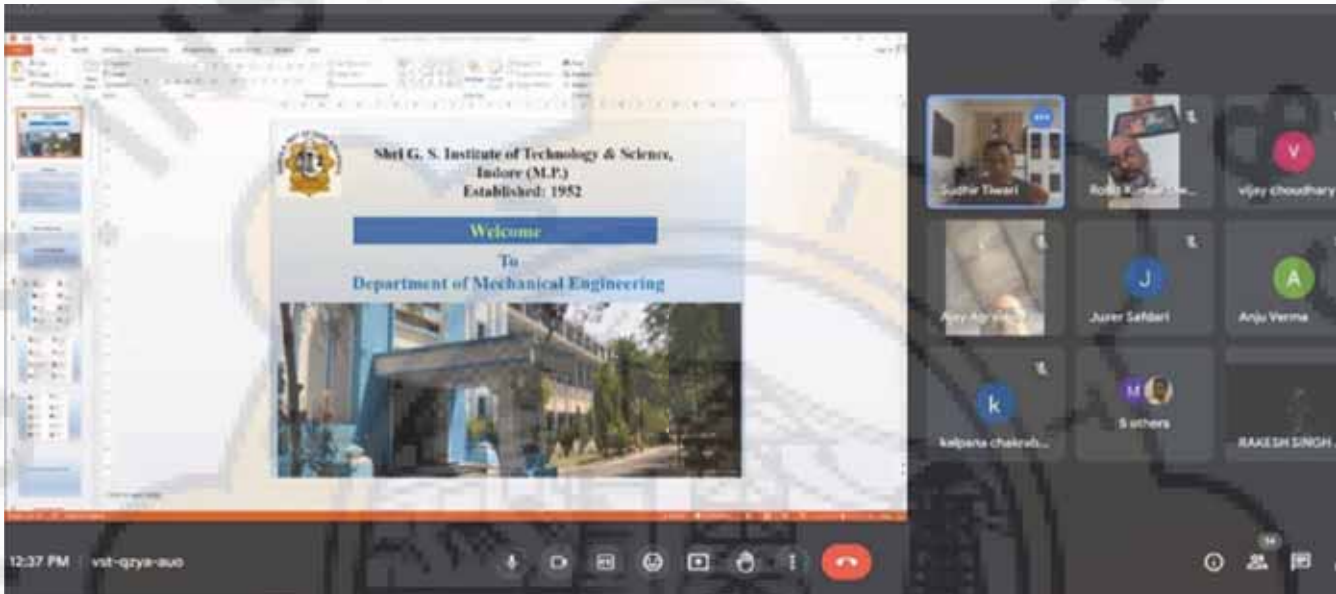
### »» TREE PLANTATION BY MECHANICAL ENGINEERING DEPARTMENT

Department of Mechanical Engineering Joins & contributes in cultivating a greener tomorrow through tree plantation at Miawaki forest! Harnessing the principles of dense, multi-layered forests, Miawaki methodology fosters rapid growth and biodiversity. Each sapling planted is a pledge towards sustainable ecosystems, combating climate change, and fostering biodiversity. By participating, you're not only enriching the environment but also contributing to cleaner air and a healthier planet for generations to come. Let's sow the seeds of change together and watch them flourish into a lush sanctuary of life. Join us in our mission to create a greener, more resilient future, one tree at a time



## »»» ONLINE PARENT MEETING BY MECHANICAL ENGINEERING DEPARTMENT

- Online parent-teacher meetings have become a common practice, especially since the COVID-19 pandemic highlighted the need for virtual communication solutions.
- An online meeting was held on 14 April 2024 at 12:30 pm. The agenda included improvements in the B.Tech scheme, course content, delivery of content, evaluation criteria and future prospects. Many parents appreciated the flexibility and convenience of online meeting.



- The Mechanical Engineering Department invited all parents to an online Parent-Teacher Meeting (PTM). Amidst the digital landscape, we are committed to fostering a strong partnership between educators and parents. This virtual gathering aims to provide insights into students' academic progress, discuss their challenges, and chart a collaborative path forward. The faculty members took valuable feedback and guidance, together empower our students to thrive academically and professionally. It was a valuable conversation online for an enriching exchange of ideas.

## WORKSHOP / FDP / CLUB ACTIVITY

## »»» TEAM OF TIFAN WON 1ST IN IIC IDEATHON 2024.

- Hats off to Team TIFAN for clinching the top spot in the IIC Ideathon 2024! Their stellar performance showcases unparalleled innovation, teamwork, and dedication. Their victory not only honors their hard work but also exemplifies their potential to revolutionize the future. Congratulations on this well-deserved triumph !





## »» YAAN



- Kudos to Yan for an outstanding display of talent and ingenuity! Securing Air 1 in Innovation at DDC 2023, 1st Prize at SGSITS Innovation Day 2023, and Air 3 in Design Report at ADDC 2023 is a testament to your exceptional capabilities.
- Your remarkable achievements inspire and exemplify the pinnacle of creativity and excellence. Keep shining bright and paving the way for future innovators. Well done!

## »» YAANTRIKI

YANTRIKI A club of Mechanical Engineering students got established in 2024. Successfully conducted their first ever event in Aayam 2024.



## »» BAJA

- Congratulations to Team BAJA for their stellar performance in BAJA 2024! Securing the 4th overall rank is a remarkable feat, showcasing your exceptional skill, teamwork, and perseverance. Your triumph as Rank 1 in Madhya Pradesh further underscores your dominance in the competition.
- Your dedication and hard work have undoubtedly paid off, earning you well-deserved recognition and admiration. May this victory serve as a stepping stone to even greater achievements in the future.
- Keep pushing boundaries, breaking barriers, and inspiring others with your passion and excellence. Here's to continued success and many more victories ahead!

BAJA won 4th overall rank in the BAJA 2024, and Rank 1 in MP.





## ▶▶▶ AUTO CLUSTER PRESENTATION

Presentation by Auto Cluster for internship/ training opportunities for the students.



### \*CELEBRATING ACADEMIC EXCELLENCE\*

- We are thrilled to share the outstanding accomplishments of one of our esteemed students at Shri G.S. Institute of Technology and Science (SGSITS), Indore, specifically from the Mechanical Engineering Department.
- Ms. Tanisha Agrawal, a member of the 2025 batch (III Year) with enrollment number 0801ME211091, has demonstrated exceptional prowess by securing top positions in two competitions at the Student Convention 2023.
- Ms. Agrawal clinched the prestigious 1st Runner-up title in the Geometric Dimensioning & Tolerancing (GD&T) Competition, alongside an impressive 2nd Runner-up position in the Auto Quiz Competition.
- These achievements exemplify dedication to academic excellence and underscore the rigorous standards upheld at SGSITS, Indore.



### VALUABLE CONTRIBUTION

Prof. Sudhir Tiwari (HOD), Mr. Dinesh Kumar Pasi (editor in chief), Mr. Gangaram Mourya (editor),  
Dr. Shubham Jain (editor)