

SCHOOL OF ENGINEERING & TECHNOLOGY

YANTRIKI



SHARDA
UNIVERSITY
Beyond Boundaries



NEWSLETTER

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YANTRIKI

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of Mechanical Engineering





Vision & Mission of the Department of Mechanical Engineering

VISION ►

To be a centre of learning for preparing professional mechanical engineers, having passion for innovation, entrepreneurship and research, to provide a sustainable solution to the needs of the society.

MISSION ►

- M1: To offer a curriculum that prepares students with knowledge, skills and ethical values for exploring professional practices.
- M2: To train students in to global leaders through industry driven and research oriented teaching- learning pedagogy.
- M3: To groom students into competent professionals and entrepreneurs, who are sensitive to the issues of environment, energy, and emergent needs of the society.
- M4: To equip students with necessary skills to contribute innovatively in creating knowledge through higher learning.

Events organized

The Department of Mechanical Engineering, SET organized a webinar on 'Career Opportunities After B. Tech' on 13th August 2021. The objective of the event was to aware the students with important career opportunities available for engineering graduates (GATE, ESE, PSUs Jobs, State Service Commission, IT / Private sector Jobs) and other competitive exams, opportunities available through various competitive examinations and indirect benefits, the salient features of all the competitive examinations like the pattern of the examination, eligibility criteria, and branches eligible and strategies for competitive exam preparation. The event was coordinated by Dr. Akanksha Mishra.



The Department of Mechanical Engineering, SET organized a 5-day training program on 'Basics of Computer Aided Design' for Lab Technicians from 9th to 13th August 2021. The objective of the event was to provide foundation knowledge to the lab staff about the software. The uses of software across multiple designs, architectural and 3D design models was learned by lab staff, which will eventually be transferred to the students. The event was coordinated by Ms. Saigeeta Priyadarshini, Dr. Akanksha Mishra, Mr. Abhishek Bhattacharya and Dr. Vineet Kumar.





Faculty Member Achievements

The Department of Mechanical and Electrical Electronics and Communication Engineering, SET organized a 2-week Faculty Development Program on 'Electric Vehicles: Opportunities and Challenges' from 16th to 27th August 2021. Through this faculty development program, faculty and students got foundation knowledge of Electrical Vehicles (EVs) and its challenges and opportunities in India market. Following topics

were covered in this FDP: Overview/ Evolution of Electric Vehicle, Electric Vehicle Technology and Market, Design and Development of Electric Vehicle, Instrumentation and controls in Electric Vehicle, Energy Storage and Battery Management System, Charging Technology in Electric Vehicle, Mechanism of the powertrain in Electric Vehicle, Transient and Testing Performance of Electric Vehicle and Entrepreneurship and Research opportunities in Electric vehicles. The event was coordinated by Mr. Abhishek Bhattacharya, Dr. Himanshu Payal, Mr. C Mohan and Dr. Lavish Kumar Singh.



The Department of Mechanical Engineering celebrated Vishwakarma Puja on 17th September 2021 from 11:30 AM onwards to pay due respect and regards to Lord Vishwakarma, who is worshipped as an epitome of Engineering excellence. This auspicious occasion is celebrated in a grand manner every year by the Department of Mechanical Engineering. The event was coordinated by Dr. Ashutosh Sahu, Dr. Lavish Kumar Singh and Ms. Saigeeta Priyadarshini.





Funding from Ministry of Heavy Industries, Government of India

Ministry of Heavy Industries, Government of India has approved a sum of 4.5 lakh to Sharda University to conduct three programs for spreading awareness about the Capital Goods Sector and Government initiatives in the CG sector. Department of Mechanical Engineering will be organizing all the programs under this scheme.



Vice Chancellor's Gold Medal

Abinash Adhikari (System ID: 2017000442) has been awarded VICE CHANCELLOR'S GOLD MEDAL based his phenomenal performance across academics and other university related academic activities during the convocation program held on 11 th and 12 th November 2021.





Patents

■ Title: Mountain Bike; Design published on 04.06.2021; Patenter: Mr. Abhshek Bhattacharya, Dr. Bhim Singh, Dr. Parma Nand et al.

Title: Pedal Operated Forklift; Design published on 23.07.2021; Patenter: Mr. Shishir Acharya, Mr. Abhshek Bhattacharya, Mr. Abhinav Dwivedi,, Dr. Hianshu Payal, Dr. Bhim Singh, Dr. Parma Nand et al.

Memorandum of Understanding

■ Memorandum of Understanding was signed between the Department of Mechanical Engineering, School of Engineering & Technology, Sharda University, Greater Noida & Krishwave Engineering Solutions India Pvt. Ltd. For skill development, outcome based trainings and related services.

Advance Valves Private Limited Plant Visit

■ The team of Mechanical Engineering who are working on the MoU with Advance Valves Private Limited along with Prof Parma Nand, Dean Academics, visited both the plants of the company. The team discussed with the MD, Head HR, Head Mechanical and other senior executive of company regarding placement, consultancy, student's internship and product gallery.



Prof. Vijay Gupta has been appointed as Honorary Professor in the Department of Applied Mechanics at IIT Delhi. He has also completed video recording of a complete course on Fluid Mechanics at IIT Delhi on invitation.







Publications

- Effect of thermomechanical treatment on the microstructure and mechanical properties of Si-containing oxide dispersion strengthened reduced activation ferritic steel synthesized via mechanical alloying and spark plasma sintering by Lavish Kumar Singh et al.; Journal of Nuclear Materials and Energy; I.F. 2.32
- Free and Forced Vibration Characteristics of CNT Reinforced Composite Spherical Sandwich Shell Panels with MR Elastomer Core by Ananda Babu et al.; International Journal of Structural Stability and Dynamics; I.F. 2.558
- Prediction of influences of MWCNT fillers on the vibration characteristics of laminated hybrid honeycomb core sandwich GFRP composite plate by Ananda Babu et al.; Materials Today: Proceedings
- Effect of counterface materials on friction and wear of graphene-coated steel under dry sliding contact by Sudesh Singh et al.; Materials Today: Proceedings
- Dr. Ashutosh Sahu and Dr. Lavish Kumar Singh published an article titled 'Analyzing the Effects of Milling and Sintering Parameters on Crystalline Phase Evolution and Mechanical Properties of $Al_{86}N_{18}Y_6$ and $Al_{86}N_{16}Y_{4.5}Co_2L_{a1.5}$ Amorphous Ribbons' in Acta Metallurgica Sinica (English Letters), a Q1-SCI indexed journal of International repute with Impact factor 2.8.
- Dr. Himanshu Payal along with his Doctorate student Asmita Singh Bisen published an article titled 'Collaborative robots for industrial tasks: A review' in Materials Today: Proceedings, a Scopus indexed journal of International repute.
- Dr. Ananda Babu and his students published an article titled 'Free Vibration and Instability Analysis of Sandwich Plates with Carbon Nanotubes-Reinforced Composite Faces and Honeycomb Core' in a Q1-SCI-indexed journal 'Journal of Structural Stability and Dynamics' having impact factor of 2.6.



Department of Mechanical Engineering

 <p>Nuclear Materials and Energy Volume 28, September 2021, 101041</p> <p>Effect of thermomechanical treatment on the microstructure and mechanical properties of Si-containing oxide dispersion strengthened reduced activation ferritic steel synthesized via mechanical alloying and spark plasma sintering</p> <p>Wahida R. Iqbal^a, Ravish Kumar Singh^b, Anil Kumar^c, Tejas Laha^a</p> <p>Show more</p> <p>+ Add to Mendeley Share Cite</p> <p>https://doi.org/10.1016/j.nme.2021.101041 Get rights and content Under a Creative Commons license</p>	<p>International Journal of Structural Stability and Dynamics Online Ready </p> <p>Free and Forced Vibration Characteristics of CNT Reinforced Composite Spherical Sandwich Shell Panels with MR Elastomer Core</p> <p>Mageshwaran Subramani, Manoharan Ramamoorthy, Ananda Babu Arumugam and Rajeshkumar Selvaraj</p> <p>https://doi.org/10.1142/S0219455421501364 Cited by: 0</p>
<p>Highlights</p> <ul style="list-style-type: none">• Effect of TMT on Si-containing ODS-RAF steel was studied.• Mechanical alloying followed by spark plasma sintering and hot forging was done.• Hot forging improved densification substantially (96.2%) and reduced grain size.• Compressive strength and elongation enhanced by 37% and 19%, respectively.	 <p>Available online 21 May 2021 In Press, Corrected Proof</p> <p>Prediction of influences of MWCNT fillers on the vibration characteristics of laminated hybrid honeycomb core sandwich GFRP composite plate</p> <p>Sushila Choudhary^a, Sirhan Tafese^a, Ananda Babu Arumugam^a, Muthukumaras, G^b</p>
	 <p>Available online 20 May 2021 In Press, Corrected Proof</p> <p>Effect of counterface materials on friction and wear of graphene-coated steel under dry sliding contact</p> <p>Sudesh Singh^a, Pooja Varma^b, Ravish Kumar Gauram^c, Rajnesh Tyagi^d</p>

EDITORIAL TEAM MEMBERS

Dr. Lavish K. Singh, SUSET, Assistant Professor, ME Department

Dr. Akanksha Mishra, SUSET, Assistant Professor, ME Department

Ms. Sanya Gupta, Student, ME Department

Mr. Shaun Joshi, Student, ME Department

About the Sharda University

Sharda University is a leading Educational institution based out of Greater Noida, Delhi NCR. A venture of the renowned ShardaGroup of Institutions (SGI), The University has established itself as a high quality education provider with prime focus on holistic learning and imbuing competitiveabilities in students. The University is approved by UGC and prides itself in being the only multi-discipline campus in the NCR, spread over 63 acres and equipped with world class facilities. Sharda University promises to become one of the India's leading universities with an acknowledged reputation for excellence in research and teaching. With its outstanding faculty, world classteaching standards, and innovative academicprograms, Sharda intends to set a new benchmark in the Indianeducation system.

About the Department

This has been the motto of Mechanical Engineering Department of Sharda University right since its inception. By choosing this department, one will join a dynamic community where he/she will be challenged and supported to achieve one's goals. One will learn how to take a product from initial concept, to design and manufacture. A degree in Mechanical Engineering will pitchfork the student on the path to learn about mechanical design, structures, and materials, then select specialist topics to study. Project work throughout the degree provides the opportunity to apply one's design skills to real-world problems.



Sharda University

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