



## Newsletter of Mechanical Engineering Association

### DEPARTMENT OF MECHANICAL ENGINEERING SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN :: AUTONOMOUS

#### Vision of the Department

- To be recognized globally for quality education and research leading to well-qualified, innovative, entrepreneurial and successful mechanical engineer

#### Mission of the Department

- To Impart quality education to enhance skills and make graduates globally competitive.
- To Prepare students to pursue lifelong learning,, serve the profession and meet intellectual,, ethical and work place challenges.
- To Provide Research facilities and opportunities to faculty & students to create,, interpret,, apply and disseminate knowledge.

#### Program Educational Objectives

- *Have foundation in engineering and science to apply Technical Knowledge and skills in various areas of Mechanical Engineering.*
- *Become effective engineers to meet society''s needs with their research capabilities in interdisciplinary subjects.*
- *Acquire skills for life-long learning and practice of professional ethics.*

**Short-term Training Program on “Mining Machinery”  
Phase-1 & 2 During 19-23<sup>rd</sup> Jun 2023 & 14-19<sup>th</sup> Aug 2023**

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The Short-Term Training Program (STTP) on Mining Machinery was conducted in two Phases from 19/06/2023 to 23/06/2023 and 14/08/2023 to 19/08/2023. This program aimed to provide participants with comprehensive knowledge and practical skills related to mining machinery operations, maintenance, and safety protocols. The program was organized by the Department of Mechanical Engineering and was attended by 27 participants from the Mechanical, EEE, and ECE departments of the institution. STTP was designed to not only educate engineering students about mining machinery but also to inspire them to think creatively and develop innovative solutions for the challenges faced by the industry.

The first phase of the STTP was started on 19/06/2023 with the introductory session from the resource person, Mr. Kapil Dev, Deputy Engineer, Triveni Earth Movers Pvt. Ltd. and the second phase was continued by Mr. Mrinal Kumar, Service Engineer from Triveni Earth Movers Pvt. Ltd. on 14/08/2023.

The program was structured into various sessions and workshops, covering a wide range of topics related to mining machinery.

Some of the key sessions included:

- **Introduction to Mining Machinery:** An overview of the different types of mining machinery, their functions, and their importance in the mining industry.
- **Operation and Maintenance:** Detailed training on the operation and maintenance of mining machinery, including best practices and troubleshooting techniques .
- **Safety Protocols:** Comprehensive sessions on safety protocols and regulations in mining machinery operations, with a focus on minimizing accidents and ensuring worker safety .
- **Field Visit:** Participants had the opportunity to visit the Yenamadurru site, where a mining excavator is present to observe the practical application of the concepts learned during the program .



## Workshop on “Problem Solving and Ideation”

The session on “Problem Solving & Ideation Workshop” hosted by the Department of Mechanical Engineering, Shri Vishnu Engineering College for Women, was conducted for I year Mechanical Engineering students in the forenoon(9:30- 12:30) and III year students in the afternoon(1:30 – 4:00) on 29/11/2023 in offline mode. The speaker of the session was Mr. Ashwin Kathaperumal, Incubation Manager- Vishnu Foundation TBI & Chief Executive officer of Knight Group.

The workshop commenced with an exploration of the importance of innovation in the startup ecosystem. Facilitators highlighted the dynamic nature of the business landscape and emphasized the need for adaptive problem-solving approaches. Participants were introduced to case studies showcasing successful start-ups that thrived on innovative solutions, setting the tone for the workshop



## Guest Talk On “Accelerator/ Incubation- Opportunities For Students & Faculties - Early Stage Entrepreneurs”

Guest talk on Accelerator/ Incubation- Opportunities for Students & Faculties – “Early Stage Entrepreneurs” hosted by the Department of Mechanical Engineering, Shri Vishnu Engineering College for Women, conducted for Mechanical engineering 2<sup>nd</sup> year students in forenoon and 3<sup>rd</sup> year students in afternoon on 02/08/2023 in offline mode. The speaker of the session was Dr. M K Kaushik, Director- Innovation, and Entrepreneurship of Shri Vishnu Educational Society.

The speaker explained the meaning of business accelerator and the role of accelerator in the development of entrepreneurial ecosystem. The need of Entrepreneurship and its impact on the economy of the country were well explained by him with best examples. He also motivated the students to utilize the Technology-Business Incubation (TBI) Centre that available in the campus of this college.

A Total of 78 students and 5 staff members participated in the program. The session was very informative and the students discussed and clarified their queries with the speaker.

Overall, the session was so informative and more focused on practical aspects of Business incubation and opportunities. Students are able to understand the importance of key aspects of accelerators and incubators, start-up journey, innovation management and how to fulfil the financial requirements and raise capital for the start-ups



## **“Motion In Control 2023 Vehicle Dynamics & Adas ”- Conference-India, held during 30<sup>th</sup> Nov & 1<sup>st</sup> Dec 2023.**

A group of 3 enthusiastic students along with Mr. M.Rajesh, Asst.Professor of Mechanical Engineering recently participated in the Motion in Control 2023 Vehicle Dynamics & ADAS Conference held at the Global Automotive Research Centre in Chennai. The event was conducted by SAEINDIA-NORTHERN SECTION, and our students had the opportunity to gain valuable insights into the latest advancements in the automotive industry.

The conference focused on Vehicle Dynamics and Advanced Driver Assistance Systems (ADAS), providing a platform for students to interact with industry experts, researchers, and professionals. The event aimed to bridge the gap between academic knowledge and real-world applications in the automotive sector.

Our students had the opportunity to attend keynote sessions, technical presentations, and workshops, gaining valuable insights into cutting-edge technologies and trends shaping the future of the automotive industry. The conference also facilitated networking opportunities, allowing our students to connect with professionals and peers who share a passion for automotive research and innovation



This experience was not only educational but also inspiring for our students, motivating them to explore further possibilities and contribute to the ever-evolving field of automotive engineering. We extend our gratitude to SAEINDIA-NORTHERN SECTION for organizing such a valuable event, providing a platform for knowledge exchange and professional development.

## **A Two Day Workshop on “Lean Six Sigma Yellow Belt” at BVRIT Narsapur**

The two-day workshop on Lean Six Sigma Yellow Belt, held at BVRIT Narsapur on November 9th and 10th, 2023, aimed at equipping participants with essential skills and knowledge in process improvement and quality management. The workshop was conducted by an experienced faculty member P. Phani kumar and 30 mechanical engineering students.

The workshop was structured to provide participants with a comprehensive understanding of Lean Six Sigma principles, methodologies, and tools. It focused on instilling the fundamental concepts of process optimization, waste reduction, and continuous improvement in organizational processes.

In conclusion, fostering a culture of continuous improvement requires a holistic approach that combines leadership commitment, open communication, training initiatives, and a systematic integration of improvement principles into everyday practices.



### Faculty Publications:



- N Malleswararao Battina, published a paper titled “Study on Free Vibration Analysis of a Rotating Fibre-Graphene-Reinforced Hybrid Polymer Composites Pre-Twist Shell” INCAS BULLETIN, Volume 15, Issue 2/ 2023, pp. 149 – 159, DOI: 10.13111/2066-8201.2023.15.2.14 (Scopus)
- Dr. Chirala Hari Krishna, of Mechanical Engineering Department published a paper titled “Hardness prediction in Upsetting process of Al%ZrO<sub>2</sub> -An approach of Machine Learning using Regression and Classification Models”. Transactions of the Canadian Society for Mechanical Engineering. Just-IN <https://doi.org/10.1139/tcsme-2023-0063>
- Mr. Javvadi Eswara Manikanta published a paper titled “Optimization parameters for electro discharge machining on Nimonic 80A alloy using grey relational analysis” International Journal on Interactive Design and Manufacturing (IJIDeM) , DOI: <https://doi.org/10.1007/s12008-023-01616-x>.
- Dr. Chirala Hari Krishna, of Mechanical Engineering Department published a paper titled “ Effect of Vortex Generator Placement and Nanofluids on Channel Flow Heat Transfer. Heat Transfer Engineering, 0(0), 1–15. <https://doi.org/10.1080/01457632.2023.2268865>

### Faculty Certifications :

- Mr. Javvadi Eswara Manikanta of Mechanical Engineering Department has successfully completed an online non-credit course on Research Methodologies authorized by Queen Mary University of London and offered through Coursera.
- Mr. Javvadi Eswara Manikanta of Mechanical Engineering Department has successfully completed an online non-credit course on Introduction to Academic Writing authorized by O.P. Jindal Global University and offered through Coursera.
- Mr. Javvadi Eswara Manikanta of Mechanical Engineering Department has successfully completed an online non-credit course on Research Instruments and Research Hypotheses authorized by Queen Mary University of London AND offered through Coursera.
- Mr. Javvadi Eswara Manikanta of Mechanical Engineering Department has Successfully completed a 8 week NPTEL online certification course and got elite silver certification on “ Research Methodology” by IIT Madras.
- Mr..N.Raja sekhar of Mechanical Engineering Department has Successfully completed a 12 week NPTEL online certification course and got elite certification on “ Metal Additive manufacturing” by IIT Madras.
- Mr. Javvadi Eswara Manikanta of Mechanical Engineering Department has Successfully completed a 8 week NPTEL online certification course and got elite silver certification on “ Research Methodology” by IIT Madras.