



NEWS LETTER

ISSUE 8

MECHSCOOP 2023-24

SUPPORT OF

EDITOR'S COLUMN



Sri. S. Jayaram Reddy
President - KRJS



Dr. Vijayasimha Reddy B.G.
PRINCIPAL, VIT

I am pleased to know that the Department of Mechanical Engineering is going to release 8th edition of its newsletter. This newsletter provides a panoramic view of the academic, research, co-curricular activities and achievements of the department during the academic year 2023-2024. Our vision is to impart technical educational training of exemplary academic standards to our students. The mechanical engineering department has a rich tradition of pursuing academic excellence and providing congenial environment for the overall personality development of its students. I feel confident that the department is progressing in the right direction and I congratulate the faculty and staff for their hard work and whole-hearted efforts to make the department the choicest destination for aspiring mechanical engineers.

“Finally, I express my sincere thanks to the management, principal, colleagues and my dear students; who have supported in bringing out this eight edition of newsletter MECHSCOOP-24”



Dr. LOKESHA G REDDY
Professor & HoD

Vision and Mission of the Department

Vision:

To be recognized in the field of mechanical engineering education and research to produce competent engineers.

Mission

- Impart technical education through effective teaching learning methods.
- Create research ambience to face the current technological challenges for the benefit of society.
- Strengthen industry-institute interface for developing team work, internship and entrepreneur skills.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: Solve real time problems using fundamentals of mathematics and engineering sciences.

PEO2: Design, analyze and evaluate mechanical systems using modern tools for the benefit of society in a conducive environment.

PEO3: Create innovative products with multidisciplinary approaches as an individual and as a team with good interpersonal skills and ethical values.

PROGRAM SPECIFIC OUTCOMES (PSO's):

PSO1: Apply the knowledge gained on metals and structures to show their limitations and make them to think for better procedures.

PSO2: Apply fundamental principles of thermal sciences on energy utilization and its impact on environment.

WORKSHOP

"Three-Day Skill Development Program on Automobiles & Electric Vehicles" was organized by the department to inspire the students through research and innovation towards latest trends in automotive technologies in order to enhance their knowledge and to be industry ready. Hands on workshop was organized from Dec 21st – 23rd, 2023. Dr. Vijaysimha Reddy B. G., Principal of Vemana IT, extended a warm welcome to the attendees. Dr. Loksha G Reddy, Convener & HoD of the Department of Mechanical

Engineering, provided an insightful overview of the Skill Development Program.



Inauguration of the workshop

Mr. Yogesh Bolar, Vice President of Engines R&D at Ashok Leyland, chief guest delivered a keynote address on "Sustainable Transportation Solutions for Heavy-Duty Transport Vehicles". Representatives from esteemed automotive companies such as Ashok Leyland, Volvo Group India Private Limited, Green Tiger Technologies, and Bosch Limited shared invaluable insights during the workshop. Speakers also shed light on the current trends in Electric Vehicles (EVs) within the Indian landscape, providing comprehensive insights into the Government of India's incentive schemes, particularly catering to startup projects in this domain.



Automobile & EV workshop chief-guest.

The hands-on segment of the program offered an invaluable experience. Approximately 100 students (both Mechanical and Electronics & Communication Engineering), actively engaged in practical sessions involving the dismantling and assembly of petrol and diesel engines, fostering a practical understanding of the theoretical concepts discussed.

A skill development program on "Autodesk Fusion 360" was organized for 4th and 6th semester students from June 4th to June 5th 2024. A technical software trainer, Er. Priyadharshik, provided an overview of the software, demonstrating its capabilities in creating 3D models and assembling the components like screw jack and plumber blocks.



Autodesk Fusion 360 session in lab

INDUSTRIAL VISITS ORGANISED

4th semester students visited “Ace manufacturing systems”, Bangalore on 12th August 2023. They got the exposure on latest CNC Lathes, special purpose machines, assembly line and 3D printing machines.



Students at ACE Manufacturing Systems.

IMTEX Bangalore 2024 is one of the largest trade shows for the metal forming industry where leading companies showcase their latest technologies and innovations. A total of 32 Students from 3rd and 5th semesters visited IMTEX 2024 along with two faculties Dr. Kiran Kumar N, Asst. Professor and Prof. C M Aswathappa on 19th January 2024.



Students & Faculty at IMTEX exhibition.

An industrial visit to “Bosch Limited” Bidadi plant, was organized on 9th February 2024 for 3rd and 5th semester students along with 3 staff members. A total of 40 members visited the industry. Students got the exposure on latest fuel pumps, CNC Lathes and quality check of the finished products.



Briefing in BOSCH

GUEST LECTURES

➤ A guest lecture was organized on 10/01/2024 for 5th semester students. It was delivered on “Introduction to Intellectual Property Rights” by Mr. Gopinath. A. S, partner of K & S Partners, Patent Attorney. He started his talk with definition of Intellectual Property Rights (IPR), importance of patent and different kinds of IPR. He explained in detail about Trademarks, Copyrights, Designs and Geographic Indications. He discussed about inventions not patentable also. He ended his talk with what are different phases of patent filing and also about maintenance of patent.



Speaker and audience

A guest lecture was organized on 13th June 2024 for 4th and 6th semester students. The topic was

on “Joining Processes for Dissimilar and Advanced Materials”. Guest lecture was delivered by Dr. Suresh R. He started his presentation with basics of welding process and proceeded to advances in joining processes, latest



Students in the guest lecture on Joining Processes.

manufacturing technologies and car body material selection.

PROJECT EXHIBITION

An inter-college project exhibition named 'AVISHKAR-2024' was organized by the Student Project Committee, in collaboration with the ISTE and IEEE Student Branch Chapters of Vemana IT. The exhibition took place on April 30th 2024, and brought together students from various institutions to showcase their innovative projects and ideas. 7 projects were presented in the exhibition. Our students secured 2nd prize for the project titled “Multipurpose seed sowing machine” with a cash award of Rs.2000/-. Team members of the project are Darshan.M, Vijay Kumar, Malatesh & Ravindra. The project was guided by Prof. Naveen Kumar. R. All the participants received the certificates.



Project exhibition winners

FUNDED PROJECTS RECEIVED

One final year project was funded by 47th series KSCST – SPP.

➤ Design & development of multi-purpose seed sowing machine. Guide: Prof. Naveen Kumar. R and Co-guide: Dr. Kiran Kumar. N

Sanctioned amount is Rs.6500/-.

ONGOING RESEARCH AREA

1. Ballistic Impact Gas Gun
2. Alternative fuels
3. Stress wave propagation of bars
4. Design and Development of a Split Hopkinson Pressure Bar test setup.

RESEARCH PUBLICATIONS

- Kiran Kumar. N “Enhanced Wear Characteristics of UHMWPE Composite Reinforced with Nano ZnO: Experimental Investigation and Microstructural Analysis”, Journal of Propulsion

Technology, Volume 4, Issue 4, October 2023, ISSN: 1001- 4055.

- Tippeswamy.M.S, “Effect of Air jet erosion test parameters on damage area of aluminium 6082-T6-A Taguchi approach”, Bulletin for Technology and History, Volume 23, Issue 12, December 2023, ISSN: 0391- 6715.

- B. Aparna, Loksha.G, “Natural convective studies in a trapezoidal porous cavity with a solid adiabatic fin”, Bulletin for Technology and History, Volume 24, Issue 1, January 2024, ISSN: 0391- 6715.

- Kiran Kumar. N “Comparative analysis of sliding wear behaviour of A356 nanocomposites using response surface methodology and artificial neural network approaches”, Engineering Research Express Volume 6, May 2024, ISSN: 2631-8695.

- **Editorial Board:**

1. Dr. Lokesh G Reddy
2. Ms. Chitra. M
3. Ms. Dharani. N

Academic results (2023-24 EVEN Sem) - 8th Semester Class Toppers

| Sl. No. | USN | NAME | PERCENTAGE | MARKS |
|---------|------------|-----------------|------------|-------|
| 1 | 1VI21ME403 | DARSHAN.M | 89.6 | 448 |
| 2 | 1VI20ME003 | H. GUJJARAGOWDA | 87 | 435 |
| 3 | 1VI19ME002 | ARAVIND PRASAD | 85.4 | 427 |

Academic results (2023-24 ODD Sem) - 5th Semester Class Toppers

| Sl. No. | USN | NAME | PERCENTAGE | MARKS |
|---------|------------|-----------------|------------|-------|
| 1 | 1VI21ME003 | DHARANLN | 82.75 | 662 |
| 2 | 1VI22ME400 | ANGADI ABID ALI | 82.25 | 658 |
| 3 | 1VI21ME002 | AVINASH.N | 80.38 | 643 |

Academic results (2023-24 ODD Sem) – 3rd Semester Class Toppers

| Sl. No. | USN | NAME | PERCENTAGE | MARKS |
|---------|------------|-------------|------------|-------|
| 1 | 1VI22ME003 | CHITRA.M | 83.11 | 748 |
| 2 | 1VI22ME002 | BRUNDHAN | 82.11 | 739 |
| 3 | 1VI22ME011 | TRIBHUVAN.G | 82.0 | 738 |