



## NEWS LETTER

**ISSUE 8**

**MECHSCOOP 2022-23**

**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 7<sup>th</sup> 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 2022-2023. 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 seventh edition of newsletter MECHSCOOP-23”*



**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**

40 hrs workshop on “**Digital Twinning Hyperworks Coherent**” was inaugurated on 25<sup>th</sup> February 2023 for the final semester students of Mechanical Engineering in association with Altair Engineering. Dr. Vijayasimha Reddy B.G., Principal, Vemana Institute of Technology, and Mr. Sridharan Venkataramanan, Associate Vice President, Global Logic, inaugurated the workshop. Experts in the field, namely Mr. Subramanyam Bhatt, Mr. Raghu Nandan, and Mr. Siraj, generously imparted their expertise on the subject to the students specializing in Mechanical Engineering.

These speakers shed light on how the manufacturing industry is seamlessly incorporating cutting-edge technologies such as the Internet of Things (IoT), cloud computing with advanced analytics, as well as harnessing the power of AI and machine learning in their production processes and operational strategies.



**Lighting of the Lamp**



**Inauguration of the workshop**



**Digital Twinning Hyperworks Coherent Workshop.**

## **INDUSTRIAL VISITS ORGANISED**

To emphasize more on practical aspects and to strengthen the practical knowledge of 3<sup>rd</sup> and 5<sup>th</sup> semester students, an industrial visit was organized on 14<sup>th</sup> December 2022 to the Automotive Division of SANSERA Engineering Limited, Bengaluru. Engineers of SANSERA explained the facilities used in the manufacturing of different automobile components like connecting rods, rocker arms, gear shifter forks, and arm relays. Manufacturing of drive train parts used in electric vehicles and other transmission parts (i.e.) arms shift, and housing shift levers were demonstrated. With this visit, the students had exposure to various industrial activities and the industrial environment.



**Briefing about SANSERA**



**Shop floor at SANSERA**



**Students, Faculty and Managers of SANSERA**

## **GUEST LECTURES**

➤ A guest lecture was organized on "Industrial robotics and its importance is relevant for Mechanical Engineering" for 4<sup>th</sup> year Mechanical students on 15<sup>th</sup> October 2022. The speaker was Mr. Nandha Gopal from DiFACTO Robotics and Automation Pvt Ltd. He emphasized the need for Robots in industries. He discussed the basics of robotic programming and showed related videos. In the end, he offered a training program for the students.

➤ A guest lecture on "Artificial Intelligence" was organized on 20<sup>th</sup> October 2022 for 4<sup>th</sup> year Mechanical students. The speaker of this guest lecture was Mr. Sunil Kumar. He emphasized on the need of artificial intelligence for mechanical engineers, and he discussed the basics of Creo

software. At the end he offered a training program for the students.

➤ A guest lecture on “Recycle today for a green tomorrow” was organized on 15<sup>th</sup> December 2022. Mr. Raguram Natarajan Founder and director of green recykloplast solution Pvt Ltd emphasized on how to convert waste plastics into useful products, and he discussed the installation of plastic crushing machines in railway stations and bus stops.



**Guest Lecture audience**

➤ A guest lecture on “Industrial Application of Control Engineering” was organized on 22<sup>nd</sup> December 2022. Mr. NARENDRA REDDY T Scientist – D, CMTI, Bengaluru emphasized control engineering application in industry and industry 4.0.



**Students in the guest lecture on Control Engineering**



**Speaker and audience**

### **PROJECT EXHIBITION**

The project exhibition was a part of 18<sup>th</sup> ISTE Karnataka State Level student Convention jointly organized and conducted by the ISTE Karnataka Section and Vemana Institute of Technology, Bangalore in association with Visvesvaraya Technological University, (VTU) Belagavi, with the theme “Innovative Technologies for Sustainable Future” on 6<sup>th</sup> May 2023.



**Teaching staff with Project exhibition Evaluator**



**Electric Go-Kart Project**



**Automated Surveillance Drone Project**

**I PRIZE – Cash Prize of Rs. 6000/-**

**Project Title:** Automated surveillance drone.

**Project group:** Bilal Suhale Azeez, Adnan Sharieff, Lisa & Tuhin Ghosh.

**Guide:** Mr. Rakesh.B.G.

## **FUNDED PROJECTS RECEIVED**

Two final year projects were funded by 46<sup>th</sup> series KSCST – SPP.

- Development of wireless controlled cart.
- Automatic solar grass cutter.

Development of wireless controlled cart project was selected for exhibition on 11<sup>th</sup> and 12<sup>th</sup> August 2023, at Alva's Institute of Engineering and Technology, Mangaluru.

## **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**

- C.N.Ashok Kumar, Vijayasimha Reddy “Impact Energy Absorption characteristics of 3-D printed AlSi10Mg TPMS Gyroid metallic structures” European Chemical Bulletin, Vol 12, Special Issue 5, May 2023. ISSN: 2063- 5346.
- Kiran Kumar. N published a chapter “Machine Learning Applications for 3D-Printed Polymers and their Composites” in the book titled Development, Properties and Industrial Applications of 3D Printed Composites, Jan 2023.
- Kiran Kumar. N “A comparative study on Abrasive wear behavior of TiB<sub>2</sub>/Graphite reinforced cast and hot rolled Al7075-based hybrid MMCs” J. Inst. Eng. India Series D, August 2023. <https://doi.org/10.1007/s40033-023-00536-0>

**Editorial Board:**

1. Dr. Lokesh G Reddy
2. Mr. Krishna Kumar K N
3. Mr. H. Gujjaragowda
4. Ms. Dharani. N

**Academic results (2022-23 EVEN Sem) - 8<sup>th</sup> Semester Class Toppers**

Sl. No.	USN	NAME	PERCENTAGE	MARKS
1	1VI19ME053	POOJA.S	91.2	456
2	1VI19ME029	NISHA.V	91	455
3	1VI19ME002	AKASH GUPTA	89.8	449

**Academic results (2022-23 ODD Sem) - 7<sup>th</sup> Semester Class Toppers**

Sl. No.	USN	NAME	PERCENTAGE	MARKS
1	1VI19ME002	AKASH GUPTA	85.5	684
2	1VI19ME052	Y.SAI RACHANA	84.25	674
3	1VI19ME008	BHARATH RAJ. G	82.88	663

**Academic results (2022-23 ODD Sem) – 5<sup>th</sup> Semester Class Toppers**

Sl. No.	USN	NAME	PERCENTAGE	MARKS
1	1VI20ME003	H. GUJJARAGOWDA	76.78	691
2	1VI21ME403	DARSHAN	76.33	687
3	1VI21ME401	ARVIND PRASAD	75.44	679

**Academic results (2022-23 ODD Sem) – 3<sup>rd</sup> Semester Class Toppers**

<b>Sl. No.</b>	<b>USN</b>	<b>NAME</b>	<b>PERCENTAGE</b>	<b>MARKS</b>
<b>1</b>	<b>1VI22ME400</b>	<b>ANGADI ABID ALI</b>	<b>87.0</b>	<b>696</b>
<b>2</b>	<b>1VI21ME003</b>	<b>DHARANI</b>	<b>84.75</b>	<b>678</b>
<b>3</b>	<b>1VI21ME002</b>	<b>AVINASH</b>	<b>84.0</b>	<b>672</b>