

# VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY

(AUTONOMOUS)

(Approved by AICTE, New Delhi, Affiliated to Anna University Chennai,  
Accredited by NAAC with 'A+' Grade & Accredited by NBA)



## DEPARTMENT OF MECHANICAL ENGINEERING

### “VCET-MECHMERIZE”

#### NEWSLETTER - ODD SEMESTER 2023-24

Volume: 9 Issue: 1

#### MESSAGE FROM THE SECRETARY



It gives me great pleasure to congratulate students and staff of Department of Mechanical Engineering for the publication of newsletter odd semester 2023-24. Newsletter is believed to be a focus of the inside activities i.e. academics, students and faculty achievement as well as innovation occurring in the department. In the era of engineering and technology this newsletter will motivate the teachers and students of sharing their creativity and new ideas with the world and will help in their overall development. I wish best of luck to all for publication of newsletter.

- S. D. CHANDRASEKAR

#### MESSAGE FROM THE PRINCIPAL

It's my pleasure to congratulate the Department of Mechanical Engineering on the pleasant occasion of releasing the newsletter “VCET MECHMERIZE” for Odd Semester 2023-24. It is great to find a considerable number of winners and participants in co-curricular and extracurricular activities which certainly prove that our faculty members and students are adequately equipped and possess necessary skill sets to bring such laurels to the institution and to the department. I wish you a very happy and academically highly rewarding student life in Mechanical Department of VCET and hope that you will be your good deeds enhance the pride and prestige of this prestigious institution.



- Dr. M. JAYARAMAN

#### MESSAGE FROM THE HEAD OF THE DEPARTMENT

I am happy to note that the Department of Mechanical Engineering is releasing the first issue of ‘VCET MECHMERIZE 2023-24’ enumerating the various activities and achievements of our faculty and students. The department endeavors to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of teamwork in them. I would like to thank all my colleagues and young minds for their tireless efforts to help the department progress at a very steady pace.

- Dr. R. KUMARAVELAN

#### FAME Inauguration and Guest Lecture

The inaugural function FAME and the SAEINDIA VCET Collegiate Club for the academic year 2023-2024 on 28.08.2023. Mr.C.Vengudupathi, Senior Manager, Robert Bosch Engineering and Business Solutions Ltd, Coimbatore is the chief guest. He delivered a special lecture on "The Prospects of Mechanical Engineering for Career Advancements". During his presentation, he provided insights into the current opportunities and the industry landscape, offering valuable guidance for students to achieve their career goals.





### Alumni Interaction Session

A knowledge-sharing session titled 'Engineering Safety Concepts & Risk Management' is arranged for third-year students on 08.09.2023. Mr.S.Guhaneswaran, Alumnus of Batch: 2016-2020 is the speaker and currently working as a Safety Officer at Windcare India Pvt. Ltd. in Pollachi. During the session, he delivered the critical topics of industrial accident prevention, instilling safety awareness among students, and provided valuable insights into windmill technologies and personal protective equipment.

### Hands-on Training

A hands-on training programme on Foundation to CAD using AutoCAD" is conducted on 12.09.2023 & 13.09.2023 for second year students. The training sessions are conducted by Mr.S.Arunraj and Ms.M.Bhuvaneshwari, CAD Engineers from the CADD Centre, Erode. Comprehensive instruction on the effective usage of AutoCAD software is explained the students gained valuable insights and acquired practical skills in various aspects of design.



### Industrial Visit

In accordance with the MoU established with MACBRO Technology India Pvt Ltd, an Industrial Visit is arranged for the final year students on 13.08.2023. Mr.P.Vethapuri, Technical Manager, and Mr. K.R. Santhoshkumar, Manager - Talent Acquisition, MACBRO Technology India interacted with the students

### Techno Fun event on "Connexions"

To commemorate Engineers Day, an intra-departmental techno-fun event named 'Connexions' is held on 15.09.2023, with the aim of enriching the technical knowledge of students.



### Miniature Model Creation Event

As part of enhancing the curriculum, an intra-departmental event on "Miniature Model Competition" on 06.10.2023 is conducted. Both second year and third year students enthusiastically took part in the event and derived valuable benefits from their participation.

### Internship Training Programme

In accordance with the MoU signed with MACBRO Technology India Pvt Ltd, an Internship Training programme is organized for final year students from 16.10.2023 to 20.10.2023. Mr.R.Hariharasudhavelan, Training Manager, MABRO Technology India Pvt Ltd., Erode conducted the training sessions on Industrial design practices using CATIA.





### Guest Lecture

As part of enhancing the curriculum, a guest lecture is organized on 28.10.2023, centered around the Systems Approach for Engineers. Dr. M. Balamurali, Head of the TS Srinivasan Centre for Automotive Research, Thiagarajar College of Engineering, Madurai provided an insightful presentation on the latest developments in automotive design and discussed potential career paths within the automobile industry.

### Guest Lecture

A guest Lecture titled 'Personality Development & Leadership' on 15.11.2023 is conducted. Mr.V.Logesh, Graduate Engineer Trainee, Mapal India Pvt Ltd, Coimbatore graced the occasion as the guest speaker. His insightful session inspired students towards their career advancement, delving into topics such as SSB exams and the nuances of effective leadership. Mr. V. Logesh is our esteemed Alumnus of the batch 2019–23.



### Workshop

Workshop on 'Introduction to Automotive Plastic Design using CATIA' is conducted on 25.11.2023 for second year students. Mr. Sathiya Moorthi, Lead Technical, and Mr. R. Kingston, Design Engineer, SAN Engineering Solutions, Perundurai, conducted an informative session providing hands-on training with CATIA software.

## STUDENTS ACHIEVEMENTS

### Academic Toppers– Even Semester 2022-23

2019-23 Batch – Final Year

2020-24 Batch – Third Year

2021-25 Batch – Second Year



NAVINKUMAAR S  
9.65 CGPA

PRAVEEN D  
9.61 CGPA

SAPNAA N  
9.91 CGPA

SANTHIYA R  
9.74 CGPA

JAYA SHREE S  
9.25 CGPA

BHARANI S  
9.22 CGPA

### CO- CURRICULAR ACTIVITIES

#### (i) Students Participation in technical events

Name of the Programme	No. of Participants	Name of the Programme	No. of Participants
Paper Presentation	19	Workshop	23
NPTEL Courses	21	Smart India Hackathon, Project, NCC	26
Technical Events	27	SAE Events	34
		<b>Total: 150</b>	

#### (ii) Academic Results

Even Semester 2022-23 Pass %	
Final Year (Batch 2019-23)	100
Third Year (Batch 2020-24)	87
Second Year (Batch 2021-25)	83
<b>Total</b>	<b>90</b>

### (iii) Internship Training

- 68 final year students underwent internship training during July-December 2023 to the leading industries such as Enthu Technology Solutions, Fauget Company, G R Granites, Mars Tech Erode, Masa Creation & Learn Hub, Tirupur, Nutz Technovation Private Limited, San Engineering Solutions, Erode, The Arrowai, Timmerman Construction etc.

### (iv) Placement Activities

- M.Manikandan, R.Naveenkumar, M.Sivaguru, M.S.Vijayavelan, V.Hariharan got placed in Macbro Technology, Erode.
- M.J.Prince prefinal year student got placed in Kaar Technologies, Chennai.
- Sapnaa N got placed in Renault Nissan Technology and Business Centre India Pvt. Ltd., Chennai.
- Kishore S, Sabareesh P, Sandhiya R and Sri Vignesh K V got placed in Team Detailing Solutions Pvt. Ltd., Chennai.
- Giriraj E and Sriram M got placed in Omega Healthcare, Coimbatore.

## FACULTY ACHIEVEMENTS

### (i) Programme attended by Faculty members

Name of the Programme	No. of Events
FDP	23
Workshop	15
Conference	02
Other Events	02
<b>Total</b>	<b>42</b>

### (ii) Papers Presented in International Conferences

- Dr. R. Prakash, V. Mohankumar, Dr. R. Kumaravelan** presented a paper on Effect of Packing factor on Energy performance of Solar PVT water-heating collector system - An experimental study in International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2023) on 29.12.2023 & 30.12.2023.
- V. Mohankumar, Dr. R. Prakash, A. Manoj Kumar, Dr. R. Kumaravelan** presented a paper on Effect of Tea Leaf Waste Powder Fillers on Mechanical Properties of Snake Grass- Jute Fibers Reinforced Hybrid Epoxy Composites in International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2023) on 29.12.2023 & 30.12.2023.
- D. Senthil Kumar, K. Ramakrishnan, A.T.Navin Prasad** presented a paper on Process Parameter Optimization of Electro Chemical Discharge Machining of Borosilicate Glass Using Grey Relational Analysis and Fuzzy TOPSIS in International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2023) on 29.12.2023 & 30.12.2023.
- A.T.Navin Prasad, D. Senthil Kumar, K.Ramakrishnan, Dr.R.Kumaravelan** presented a paper on Comprehensive Review on Single Slope Solar Still - Recent Advancements, Performance Enhancement and Economic Analysis in International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2023) on 29.12.2023 & 30.12.2023.
- Dr.S.Velumani** presented a paper on Optimization of Mechanical properties of Calotropis Gigantea Fiber reinforced Epoxy Resin Composites using Response Surface Methodology in International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2023) on 29.12.2023 & 30.12.2023.

### (iii) Publication in International Journals

- Dr.M.Jayaraman**, 'Fractographic Study on the Fatigue Failure Surfaces of Heat-Treated and Shot Peened EN- 8 Steel (080M40/AISI 1040)', Indian Journal of Engineering & Materials Sciences, Vol.30, Issue 4, pp.597-602, Aug 2023.
- G. Raja**, 'Automatic LPG Gas Booking Using GSM Module, Gradiva Review Journal, Vol.9, Issue 10, pp.558-567, Oct 2023. (e-ISSN: 0363-8057)
- G. Raja**, 'Surface engineering of SiO<sub>2</sub>-ZrO<sub>2</sub> films for augmenting power conversion efficiency performance of silicon solar cells, Journal of Materials Research and Technology, Vol.28, pp.1475-1482, Dec 2023. (e-ISSN: 2214-0697)

### (iv) Patents & Copyrights

- D.Senthilkumar, Dr.R.Kumaravelan** has filed copyright on "Dynamics and Metrology Laboratory Manual" on 14.09.2023 (Reg. No: L-133032/2023).
- Dr. R. Prakash, K. Ramakrishnan, M. Gopi, A.T. Navin Prasad, D. Kesavan, V.Mohankumar, A. Manojkumar** filed a patent on the title "Design and Implement of Cloud Server based Vehicle Pollution Monitoring with Alerting System" on 21.11.2023 (202341078942).

### (v) Award / Recognitions

- V. Mohankumar** received appreciation for his role as a Faculty Advisor in the SAE India Southern Section Dr.G.Padmanabham Memorial Electric Two-Wheeler Design Competition – 2023 held at Rajalakshmi Engineering College, Chennai on 22 & 23.07.2023.
- V. Mohankumar** received appreciation for his role as a Faculty Advisor in the SAEISS Autonomous Drone Development Competition (ADDC) 2023 held at KCG college of Technology, Chennai on 25 & 26.08.2023.
- V. Mohankumar** received Appreciation Certificate for Volunteering towards SAE India Southern Section on 21.10.2023.
- Dr. S. Velumani, Dr. R. Prakash, M. Gopi, D. Kesavan, T.C.R. Dinesh, V. Mohankumar, A.T. Navin Prasad** has acted as a Session Chairperson for the ICRAMM 2023.

Editor(s): **Dr. R. KUMARAVELAN, Prof & Head**  
**Dr. R. PRAKASH, AP / Mech**

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**S. JAYA SHREE, III Year / Mech**