

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 - EVEN SEMESTER 2023-24

Volume: 9 Issue: 2



MESSAGE FROM THE SECRETARY

It gives me immense pleasure for releasing the “VCET MECHMERIZE” newsletter for the Mechanical Engineering Department. The emerging science and technology have made drastic changes in the way we lead our life. The department magazine always provides a platform for the staff and students to showcase their talents and achievements. I extend my hearty congratulations to the staff and students of Mechanical Engineering for their efforts. On this occasion I convey my good wishes to staff and students of Mechanical Engineering in their endeavors.

- S. D. CHANDRASEKAR

MESSAGE FROM THE PRINCIPAL

I feel immensely pleased in registering my deepest thoughts in the 8th volume of newsletter “VCET MECHMERIZE” 2023-24. I am very fortunate to work with such dedicated, innovative and caring staff members and students. It congratulates the students for the active participation in various co-curricular and extracurricular activities. I congratulate the Editorial Board of this News Letter who have played wonderful role in accomplishing the task in Record time. Also my heartfelt Congratulations to staff members and Students for their fruitful effort. With Best Wishes.

- Dr. M. JAYARAMAN



MESSAGE FROM THE HEAD OF THE DEPARTMENT



It's immense pleasure to present the “VCET MECHMERIZE 2023-24” newsletter. Mechanical Engineering department is the dynamic and vibrant department with the blend of young and experienced Faculty. The department has well equipped labs with the state of art software, hardware and machineries. The faculty members are constantly publishing conference papers, patents, copyrights and delivered a keynote address. The department is fortunate to have dedicated teachers, devoted students, and committed supporting staff and expert technical staff. And also, I congratulate my students to participate various co-curricular and extra-curricular activities. My best wishes to all for their bright carrier and successful life.

-Dr. R. KUMARAVELAN

Guest Lecture

Organized a Guest Lecture titled 'Goal Setting & Confidence Building' on 09.12.2023. Mr. S. Jeevan Kumar, a distinguished Alumnus (Batch: 2019-23), Graduate Engineering Trainee, Automotive Robotics (India) Private Limited, Chennai hosted the event. His enlightening talk motivated students in their pursuit of career growth, setting goals, and building confidence.





Workshop

A one-day hands on workshop on “Manufacturing Technology-GD&T” is organized on 10.01.2024. Mr.S.Senniappan B.E., CEO-Mech Tech Engg Centre, Coimbatore is the resource person. He explained the importance of geometric dimensioning and tolerancing to the third year students.

Workshop

Conducted a workshop on “Electrical Vehicle Design” on 31.01.2024, for the third year students. Mr. P. Gokulraj, Senior Design Engineer at SAN Engineering Solutions, Perundurai provided training on CREO software. The students enthusiastically participated and gained insights into CAD basics, emerging trends in EV Design, and the significance of EVs in the future.



Workshop

Conducted workshop on “Design Thinking” for the second year students on 19.03.2024. Mr. Emmanuel Robin, Founder of Svasti Vector Solutions Pvt Ltd in Tiruchy, provided specialized training on generating creative design ideas. He led engaging team based design thinking exercises with the aid of various tools. The students actively participated, showcasing their innovative ideas during



Workshop

Conducted a workshop for the second year Mechanical Engineering students on CAD software on 22.03.2024. Er. M. Harry Andrews, a CAD Engineer at C-Cube Technologies in Erode, provided training and a demonstration of CAD software, emphasizing its pivotal role and significance in industrial design processes.



Intra Departmental Activity

An intra-departmental paper presentation event is held on 23.04.2024. Both the second and third year students enthusiastically participated, presenting their innovative ideas and projects.

Symposium

Mr. Vasanth Nagarajan, Co-Founder & CTO of Pinesphere Solutions Pvt Ltd Coimbatore is the Chief Guest of National-level Technical Symposium on 05.04.2024. Students from various institutions engaged in activities such as Paper Presentation, Technical Quiz, Connexions, CAD Modelling, showcasing their talents and honing their skills in their respective domains.



STUDENTS ACHIEVEMENTS

Academic Toppers – Odd Semester 2023-24

2020-24 Batch – Final Year



SAPNAA N
9.88 CGPA



SANTHIYA R
9.72 CGPA



BHARANI S
9.3 CGPA

2021-25 Batch – Third Year



JAYA SHREE S
9.29 CGPA



LALIT KUMAR SINGH
9.27 CGPA

2022-26 Batch – Second Year



MYSUKANTH K
8.95 CGPA

CO- CURRICULAR ACTIVITIES

(i) Paper & Project Presentation

- Third year students **Jaya Shree S and Shri Harshan M** presented a paper titled “Prominence of AIOT in Manufacturing” at Karpagam Academy of Higher Education on 09.02.2024.
- Second year students **Deepan P, Karthikeyan N, Arthi Sri S and Ajaykumar M** attended a project presentation titled, “Smart Vehicle” at Nandha Engineering College on 04.04.2024.

(ii) Participation in technical events

- Third year student **Mohan Prasath M** has participated in the event CAD Modelling and won 1st Prize in TECHNOVANZA 2K24 conducted by Shree Venkateshwara Hi-Tech Engineering College, Erode on 22.03.2024.
- 50 students attended Quiz, workshops and other events conducted by various institutions.

(iii) Academic Results

Odd Semester 2022-23 Pass %	
Final Year (Batch 2020-24)	95.54
Third Year (Batch 2021-25)	90.00
Second Year (Batch 2022-26)	87.70
Total	91.10

(iv) Special Awards

- **Krishna SR, Dhanush J V, Thrisha A P, Santhosh S, Bharani S, Gurubaran M, Hariprakash G, Arnesh S** won Maneuverability - 3rd Prize in National Level Electric Two-Wheeler Design Competition 2024 conducted by SAEISS at Rajalakshmi Engineering College, Chennai on 17 & 18.02.2024.
- **Chiddharth Redthar, Ramasegaran P, Ravindhar V, Santhosh S, Painthamilan A, Naveen Ram C S, Santhosh K** won Best Design - 3rd Prize in National Level Bicycle Design Challenge 2024 conducted by SAEISS at Knowledge Institute of Technology, Salem on 24 & 25.02.2024.



(v) Industrial Visit

- 46 students of Third Year B.E. Mech have undergone an Industrial Visit to M/s. Masco Tea Factory, Vagamon, Idukki on 14.10.2023.
- 61 students of Second Year B.E. Mech have undergone an Industrial Visit to M/s. Cochin Shipyard, Cochin on 14.10.2023.
- 40 students of Second Year B.E. Mech have undergone an Industrial Visit to M/s. Seshasayee Paper and Boards Limited, Erode on 05.12.2023.



(vi) Placement Statistics

- No. of Willing Students: 45
- No. of Students Placed: 45
- % of Placement: 100%
- No of Single Offers: 29, No of Dual Offers: 13, No of Triple offers: 03, Total Offers: 64

Name of the Company	No of Offers
TAFE, Chennai	10
Samson Global Pvt Ltd, Kangeyam	01
Flow Control Commune Pvt Ltd, Chennai	01
Wipro Infrastructure Engineering, Chennai	10
Macro Technology India Pvt Ltd, Erode	05
Renault Nissan Technology and Business Centre India, Chennai	01
Team Detailing Solutions Pvt Ltd, Chennai	04
Severn Glocon UK Valves Ltd, Chennai	01
Isirong Automation Pvt Ltd, Chennai	07
Omega Healthcare, Chennai	02
Myk Laticrete India Pvt Ltd, Chennai	02
Mitsuba India Pvt Ltd, Chennai	01
Indure, New Delhi	11
[24]7.ai, Chennai	01
KSB Limited, Coimbatore	01
Kyungshin India Motherson Ltd, Chennai	05
VPG Sensors, Chennai	01

FACULTY ACHIEVEMENTS

(i) Programme attended by Faculty members

Name of the Programme	No. of Events
FDP	12
Webinar	05
Seminar	04
Total	21

(ii) Papers Presented in International Conferences

- **G.Raja** presented a paper on “Enhancing Vehicle Safety in Challenging Terrain: Emergency Air Filling Systems for Reliable and Autonomous Driving” at International Conference on Advancements in Materials, Design and Manufacturing for Sustainable during Feb 2024
- **G.Raja** presented a paper on “A Novel Hybridized Cryptographic Genetic Algorithm with Opportunistic Routing for Secured Data Transmission in Wireless Sensor Network” at International Conference held at ICITIT' 24. IIT, Kottayam during March 2024

(iii) NPTEL Course Completion

- **Dr.S.Velumani & D.Senthilkumar** has secured Elite + Gold and 1% topper & Elite + Silver and 5% in NPTEL course on Inspection and Quality Control in Manufacturing for the period of Jan- Feb 2024.
- **Dr.R.Prakash, K.Ramakrishan, V.Mohankumar, A.Manojkumar, A.T.NavinPrasad, S.Karvendhan, G.Raja** have completed NPTEL course on Inspection and Quality Control in Manufacturing for the period of Jan- Feb 2024.

(iv) Books Authored

- **Dr.R.Kumaravelan** authored a book “Engineering Thermodynamics” Published by Sri Krishna Hitech Publishing Company Pvt. Ltd., Chennai (ISBN: 978-81-19432-11-0)
- **G.Raja** published book chapter “Applications of Friction Stir Welding” book title as Friction Stir Welding and Processing: Fundamentals to Advancements, in John Wiley & Sons, Inc. March 2024 (ISBN: 978-1-394-16943-6)

(v) Publication in International Journals

- **T.C.R.Dinesh & S.Karvendhan** ‘Advancements and Applications of Friction Stir Welding: A Comprehensive Review, International Journal of Scientific Research in Engineering and Management (IJSREM), Vol. 8, Issue. 2, Feb 2024 (ISSN No. 2582-3930)
- **G.Raja** ‘Enhanced efficiency of mono-crystalline Si solar cells utilizing RF sputtered TiO₂-Al₂O₃ blended anti-reflection coating for optimal sunlight transmission and energy conversion, Ceramics International, Elsevier, Feb 2024 Print ISSN: 0272-8842 Online ISSN: 1873-3956
- **G.Raja** ‘Application of gahnite reinforced cyclic olefin copolymer cover sheets on Si solar cell for augmenting the Power conversion efficiency, Journal of Materials Science: Materials in Electronics, Springer, Vol. 35, March 2024

(vi) Patents / Copyrights

- **Dr.S.Velumani** has published a patent titled “An IOT Based Health Monitoring System” on 12.01.2024.
- **A.T.Navin Prasad & Dr.S.Velumani** authored and copyrighted the “Thermal Engineering Laboratory Manual” on 15.01.2024 (Reg. No: L-141043/2024).
- **Dr.R.Prakash, K.Ramakrishan, M.Gopi, A.T.NavinPrasad, D.Kesavan, V.Mohankumar, A.Manojkumar** has published a patent titled “Design and implement of Cloud Server based Vehicle Pollution Monitoring with Alerting System” on 02.02.2024.
- **Dr.R.Kumaravelan & T.C.R.Dinesh** have granted a patent on title “Advanced and Integrated Security System for Two Wheelers” on 01.03.2024.
- **Dr.R.Prakash & Dr.R.Kumaravelan** authored and copyrighted the “Computer Aided Design Laboratory Manual” on 27.03.2024 (Reg. No: L-145942/2024).

(vii) International Conference Organized (ICRAMM '23)

- International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2023) is conducted on 29.12.2023 & 30.12.2023 (2 days). This ICRAMM 2023 provides a platform to research scholars, faculty, scientists, and industry professionals to share their research findings, solutions to the domain problems and their valuable experience.
- The proceeding of ICRAMM 2023 is processed for publication in the Materials Science Forum, Key Engineering Materials, Defect and Diffusion Forum, Solid State Phenomena, Advances in Science and Technology, AIP Conference Proceedings (Scopus Indexed).
- Keynote Speaker: Dr. R. Singaravel, Professor & Registrar, Annamalai University, Cuddalore, Tamil Nadu.



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