

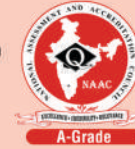


**VISWAJYOTHI**

**COLLEGE OF ENGINEERING & TECHNOLOGY**

Approved by AICTE New Delhi & Affiliated to APJ Abdul Kalam Technological University

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# MECHANIMOUS

## DEPARTMENT OF MECHANICAL ENGINEERING

### INSTITUTE VISION

"Moulding Professionals par Excellence with Integrity Fairness and Human Values".

### INSTITUTE MISSION

1. We commit to develop the institution as a Center of Excellence of International Standards
2. We guide our students in the attainment of intellectual and professional competence for successfully coping with the rapid advancements in technologies and the ever changing world of business, industry and services
3. We help each and every student in their personal growth into mature and responsible individuals
4. We strive to cultivate a sense of social and civic responsibility in our students, thus empowering them to serve humanity.
5. We promise to ensure a free environment where quest for the truth is encouraged

### DEPARTMENT VISION

"Moulding socially committed engineers capable to meet the global challenges in the mechanical engineering stream."

### DEPARTMENT MISSION

- To provide ample facilities to foster excellent ambiance for teaching learning process in the department.
- To enhance the creative ideas, analytical talents and soft skills in the students to cope up with the emerging trend in technical field.
- To enable the students to meet real life problems in mechanical engineering with a zeal to human and ethical values.

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Vol : 14

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### PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Our graduates shall have

- PEO1** Strong base in Mathematics, Science, and Mechanical Engineering to face and handle the challenges in real world engineering problems in society and industry.
- PEO2** Passion for Mechanical Engineering to select an area of specialization, pursue higher studies, choose a career, lifelong learning in industry, research and academics.
- PEO3** Basic knowledge in other disciplines to tackle and coordinate Interdisciplinary real life problems
- PEO4** Soft skills, discipline, confidence, self esteem, and ethical values.

### PROGRAM SPECIFIC OUTCOMES (PSOs)

- PSO1** Students shall be competent, creative and imaginative mechanical engineers employable in fields of design, research, manufacturing, safety, quality, technical services.
- PSO2** Students shall be able to progress through advanced degree, certificate programs or participate in continuing education in mechanical engineering, business, and other professionally related fields.

# NEWSLETTER

## PRINCIPAL'S MESSAGE



A dream doesn't become reality through magic; it takes sweat, determination and hard work. It is this that makes our students empowered. The Department of Mechanical Engineering stands to prove that education means much more than merely acquiring knowledge. It is acquisition of knowledge and skills, building character, improving employability of the young talents and future leadership. I wholeheartedly appreciate the willing contribution of the teaching and non-teaching staff and overwhelming response and enthusiastic participation of our students in the college activities. The students are motivated to "always aim high" and cultivate core values.

**Dr. K.K.Rajan**

## HOD'S MESSAGE



Dear All,

It's a great pleasure to write the foreword for this edition. Welcome to our 14th Vol. 1st Issue of "Mechnanimous"! I am very excited to launch this newsletter which will inform and inspire you on a half yearly basis with all things décor, both for academic and non-academic activities.

In professional engineering practice or non-engineering professions like law, medicine, or commerce, our department's value-added program enhances participants' engineering knowledge, critical thinking, creativity, and problem-solving skills with integrity and inclusivity. Accept leadership and cooperative responsibilities in their professional lives as well.

In order to prepare our students for the disruptive technologies of today, the department has updated the program's curriculum and syllabus to include courses on data analysis, artificial intelligence, and other topics. Numerous multidisciplinary student initiatives have been started by the faculty members.

I hope the department's scholarly, investigative, and developmental endeavors reach even greater heights. We would appreciate your feedback on how to make our academic adventure even better. I would like to thank the entire editorial team for their tireless efforts, revisions, and support in publishing the newsletter in its current form.

**Dr. Shunmugesh K**

## INTRODUCTION

The Department of Mechanical Engineering has three tenets that center on the principle of improving lives and livelihoods: to create knowledge through research in the science and technology of mechanical engineering; to share knowledge through educational programs and the dissemination of our new discoveries; and to develop the professional potential of faculty, staff, and students. Mechanical Engineering department expands the frontier of human knowledge in the discipline of mechanical engineering through fundamental and applied research conducted by faculty and students. Through initiative and innovation, we expand the frontiers of the mechanical engineering profession. Our land-grant mission is based on the premise that knowledge is beneficial to mankind and the greatest benefit comes from dispersing knowledge as widely as possible. We share knowledge with our students through educational programs and all of society through disseminating our research findings in scholarly publications, presentations, patents, entrepreneurship, and technology transfer. Through classroom, laboratory, and project-based instruction, undergraduate and graduate students are well served by a curriculum that is based upon the fundamental principles of mechanical engineering, as well as forward looking and set within the context of our profession's social mandate. Our curriculum prepares students for diverse and successful careers across the global engineering marketplace, and it further fosters creativity and critical thinking skills through research and design experiences

## MESSAGE FROM THE EDITORIAL BOARD

In the past semester, our department has successfully implemented a variety of curricular and co-curricular activities. The involvement of mechanical engineering faculties in various training programs and conferences has been particularly beneficial, and this is something we intend to continue in the future. Through regular seminars, symposiums, workshops, industrial visits and industrial training, students have been provided with the technical expertise, critical thinking skills and creativity necessary to excel in the engineering profession. Our department is dedicated to providing a positive environment for the growth of young engineers into future-oriented professionals. We are confident that we are on the right track and would like to express our appreciation for the efforts of the faculty and staff to make our department the ideal destination for Mechanical Engineers.

Additionally, our department has active research groups for conducting collaborative and inter-disciplinary research, as well as state-of-the-art research facilities

## FACULTY ACHIEVEMENTS

- **Dr. Aravind S** was resource person for Hands on training on Genetic Algorithm using Matlab in One week Serb Sponsored High end workshop (Karyashala) at Indian Institute of Technology, Madras 21st to 23rd March 2024.

## RESEARCH PAPERS IN JOURNALS AND CONFERENCES

- Arun Raphel, P. Vivekanandhan, A. K. Rajasekaran, and S. Kumaran, "Tuning thermoelectric figure of merit in Ag doped nanostructured PbSnTeSe alloy by entropy and band engineering phenomena," Materials Today Communications, vol. 35, p. 105880, Jun. 2023, doi: 10.1016/j.mtcomm.2023.105880. (SCI indexed)
- Arun Baby Baisil Martin KJ, and Aravind S, "Development & fabrication of semi-automatic hand stacker. International Conference on Recent Advances in Design and Manufacturing, NIT Patna, 2024, June 28-31 2024.
- Akash Paul Savio, Study on the significance of process parameters in improvising the tensile strength of FDM printed carbon fibre reinforced PLA, Materials Today: Proceedings, Elsevier, 2023, July 10-2023
- Akash Paul Savio, Study of mechanical properties of pineapple leaf fiber and E-glass fiber reinforced hybrid epoxy matrix composite materials, Materials Today: Proceedings, Elsevier, 2023, 7/11/2023.
- Vinoj K, Fabrication of metal surface composite by friction stir processing, International Conference on Intelligent System and Control (ISCO 2023). Karpagam College of Engineering, Coimbatore. 2023, 10-11 March 2023

## FACULTY TRAINING

- Dr. Aravind S participated in Hands on training on Genetic Algorithm using Matlab in One week Serb Sponsored high end workshop( Karyashala ) at Indian Institute of Technology, Madras 21st to 23rd March 2024, March (21st -23rd), 2024.
- Leeba Varghese participated in One week FDP on COMSOL CONFERENCE, Bengaluru from Nov 30-Dec 1 2023.

## STUDENTS AWARDS AND ACHIEVEMENTS

- Abin joseph joby of S6 ME has participated in the event Autosports india megaATV championship and awarded AIR 3 in drag racing.
- Ashik Asok of S6 ME has participated in the event Autosports india megaATV championship and awarded AIR 3 in drag racing.
- Nandakishor S of S6 ME has participated in the event Autosports india megaATV championship and awarded AIR 3 in drag racing.
- Emmanuel Lejoy of S6 ME has participated in the event Autosports india megaATV championship and awarded AIR 3 in drag racing.
- DELTON JOY of S2 ME has participated in the event Bike Engine Assembly Competition and awarded 1st Position.
- Fenuel Reji of S2 ME has participated in the event Bike Engine Assembly Competition and awarded 1st Position.
- Habel Baby of S2 ME has participated in the event Bike Engine Assembly Competition and awarded 1st Position.

## OUTSTANDING ACHIEVEMENTS BY STUDENTS

- Rejin Reji, Noel Mathew and Muhammed Fahad developed a remote controlled aquatic trash collecting machine under the supervision of Dr. Aravind S, Biju Varghese, Akhilraj P R and Binu Paul of Mechanical Engineering department, Viswajyothi College of Engineering and Technology, Vazhakulam. This indigenously developed low cost machine is capable of collecting the floating debris present in the water bodies and is operated using a radio frequency transmitter and receiver based remote control with a range of 150 m from the land.



- Adithyan O A, Anees Hameed, Saran Kumar K S Designed and Fabricated Pineapple Peeling Machine as part of final year project under the guidance of Mr. Vinoj K and Mr. Sanjay Sajeevan.



Pineapple Piling Machine



Peeled Pineapple

## TRAININGS AND INTERNSHIPS ATTENDED BY STUDENTS

- ⇒ Gagan Prem of S4 ME attended 1 week Internship at HMT
- ⇒ Basil Eldho of S4 ME attended 1 week internship at Yamaha
- ⇒ Ephry of S4 ME attended 1 week Internship at TVS
- ⇒ Nibin of S4 ME attended 1 week internship at Yamaha.
- ⇒ Abin joseph joby of S6 ME attended 1 week Internship at yamaha & bharatversity machine learning programme
- ⇒ Bestin Baby of S4 ME attended 1 week Internship at Yamaha
- ⇒ Jishnu Baiju of S4 ME attended 1 week Internship at Yamaha
- ⇒ Nevin Antony Prince of S4 ME attended 1 week Internship at Yamaha
- ⇒ Amai S Thampi of S4 ME attended 1 week internship at Yamaha
- ⇒ Vyshnav KR of S4 ME attended 1 week internship at Yamaha
- ⇒ Ashbin George of S4 ME attended 1 week Internship at Yamaha
- ⇒ Alan Vincent of S4 ME attended 1 week internship at Yamaha
- ⇒ Albert Shaju of S4 ME attended 1 week internship at Yamaha
- ⇒ Stephen MR of S4 ME attended 1 week internship at Yamaha
- ⇒ Ben Samuel of S4 ME attended 1 week internship at Yamaha
- ⇒ Ben Samuel of S4 ME attended 2 months autocad teachnook
- ⇒ Vivek Joby Varkey of S4 ME attended internship at techmagi.
- ⇒ Ben Samuel of S4 ME attended internship at techmagi
- ⇒ Abin Jose Ben Samuel of S4 ME attended 2 months course in Autocad teachnook
- ⇒ Abin Francis of S4 ME attended 1 week internship at Techmaghi.
- ⇒ Eldho Alan Thankachan of S4 ME attended 1 week Internship at Yamaha
- ⇒ Nandakishor S of S4 ME attended 1 week internship at Yamaha
- ⇒ Joel Jais of S4 ME attended 1 week Internship at Cochin Port Authority
- ⇒ Emmanuel Lejoy of S4 ME attended 1 week Internship at Cochin Port Authority
- ⇒ Ashik Asok of S4 ME attended 1 week Internship at Cochin Port Authority
- ⇒ Dibin Shajan of S4 ME attended 1 week Internship at Cochin Port Authority
- ⇒ Bibin S of S4 ME attended 1 week Internship at Cochin Port Authority
- ⇒ Joel Jais of S4 ME attended 1 week Workshop in RabitSquare.
- ⇒ Fenuel Reji of S4 ME attended 1 week Techmaghi ECU Tuning Internship

- ⇒ Habel Baby of S4 ME attended 1 week Techmaghi ECU Tuning Internship
- ⇒ Nithin Roy of S4 ME attended 1 week internship at Yamaha.

## MECH LIFE

One day tour was arranged to Vagamon. All students from first year to final year, whole teaching and non-teaching staff participated.



## ACADEMIC RESULTS

Pass Percentage of 2019-2023 ME batch-56.8%

First rank holder Albin Tony with a CGPA of 9.31

Editorial Board



Editorial Board: Dr. Arun K, Assistant Professor