

Research Activities

- **Dr. C. Nandakumar** published a paper titled "Optimization of drilling process parameters on customized alkali-silane treated pineapple fibre-epoxy composite using Taguchi-Grey relational approach", in the journal Biomass Conversion and Biorefinery, Springer. DOI: <https://doi.org/10.1007/s13399-023-05176-8>
- **Dr. S. Vijayakumar** acted as an expert member for Ph.D Viva Voce at Adhi College of Engineering on 27.12.2023
- **Dr. E. Pavithra, Dr. C. Arun Prakash and Dr. S. Sathish** attended an one week AICTE sponsored ATAL FDP on "Precision and sustainable machining of difficult to cut materials" organised by Department of Mechanical Engineering, CEG Campus, Anna University from 11-12-2023 to 16-12-2023.
- **K. Jaithra, T. Mithuna, Parthasarathi Roy** (7/8 Mechanical Engineering) presented a paper titled "Innovative Design and Fabrication of Jal-Bot With Advanced Rocker Bogie Mechanism and Gyroscopic Principles." at the 2<sup>nd</sup> International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics (STAAAR-2023) organised by VIT Bhopal in association with South East Technological University (SETU), Ireland. **Dr. E. Pavithra, Dr. C. Arun Prakash and Dr. P. Ganesh** are the co-authors of the paper.
- **Dr. E. Pavithra and Dr. C. Arun Prakash** are working with Dr. Kavitha, AU-KBC for a consultancy work of designing an equipment for enzyme slurry preparation. Meetings were conducted to finalise on the design of the equipment.
- **Mrs. U. Vishnuja** presented a poster titled "Review of Surface Texture Deviation Studies on Abrasive Water Jet Machined Materials" in the International Conference on Material Processing using Lasers and Surface Engineering (IMPULSE 2023) organised at IIT Madras on Dec 14-15, 2023. **Dr. G.B. Bhaskar, Mr. I.R. Sugumaran and Mr. N. Arunagiri** are the co-authors of the paper.

Departmental Activities

- **Dr. S. Vijayakumar and Dr. S. Sathish** were involved in the following RIPE 2024 conference works: Opening of bank account, Mail communication to M/S Kaleeswari Metals Pvt. Ltd., Submission of detailed book proposal form to Lecture Notes on Multi-Disciplinary Industrial Engineering, Springer, Sending 1<sup>st</sup> call for conference

mail, mail to DRDL Director, website checking and discussion with Dr. G.B. Bhaskar and HoD.

- **Dr. S. Vijayakumar and Dr. V. Mugendiran** submitted a FDP proposal for the subject "Additive Manufacturing" to Centre for Faculty and Professional Development, Anna University.
- **Dr. E. Pavithra and Dr. C. Arun Prakash** submitted a FDP proposal for the subject "Machine Learning for Intelligent Systems" to Centre for Faculty and Professional Development, Anna University.
- **Dr. C. Arun Prakash** had an online meeting with the website vendor and suggested corrections for modifying the RIPE conference website.
- **Dr. C. Arun Prakash** coordinated the service of HMI machine at Industrial Automation lab on 20-12-2023.
- **Dr. C. Arun Prakash** as Department Alumni coordinator approved Alumni and current students in CARCA portal
- **Mr. K. Muthukumar** assisted **Dr. C. Nandakumar**, Chief Superintendent, PG Exams in conducting PG end semester Nov/Dec 2023 examinations.
- **Mr. R. Mathiyazhagan** assisted **Dr.P. Karthikeyan** and **Dr. C. Arun Prakash** in preparation of specifications and in floating quotation for electrical drives and actuator lab.
- **Mr. R. Mathiyazhagan** purchased electronics devices (consumables) like MOSFET, SCR, IGBT, BJT, Resistors, capacitors for Rs. 3000/- after consultation with **Mr.Rangarajan** (Professional Assistant I).
- **Mr. R. Mathiyazhagan** assisted technical persons from VI microsystem during installation of DC and AC motors along with **Mr.Muralidharan** (Professional Assistant III).
- The **Association of Production Engineers and Mechanical Engineers (TAPE and TAME)** organised a lecture on "System Engineering for Electrified Powertrain Development". The lecture was delivered by **Mr. Nallaperumal SS**, System Architect, Controls Technology Group at Vitesco Technologies on 21-12-2023.
- **Dr. P. Ganesh** and **Dr. G. Kumaresan** organised a one-day workshop on "Chemical Vapour Deposition for Manufacturing" on 29-12-2023. **Dr. A. Pandurangan**, Professor, Director, Bose-Einstein Science and Technology, Anna University; **Dr. Ramasubramanian Kannan**, Senior Scientist, India Center for Lab Grown Diamond, IITM Research Park; **Dr. S. Manisha Vidyavathy**, Professor and Head i/c, AC-Tech Campus, Anna University delivered lectures. **M/s. VB Ceramics Pvt. Ltd.** gave demonstration on Chemical Vapour Deposition. 20 participants attended the workshop.

### Other Activities

- **Dr. S. Vijayakumar** was involved in Chief superintendent work for Nov/Dec 2023 semester exams. **Dr. G. Kumaresan** and **Dr. V. Mugendiran** were involved in the Additional Chief Superintendent work.

- **Dr. S. Vijayakumar, Dr. V. Mugendiran, Dr. P. Karthikeyan and Dr. S. Sathish** had a discussion with The Director, Centre for Robotics and Automation for organizing a two-week internship program.
- **Dr. S. Vijayakumar, Dr. G. Kumaresan, Dr. E. Pavithra, Dr. C. Arun Prakash and Dr. S. Sathish** are continuing MOOC 8 module course.
- **Dr. C. Arun Prakash** asked the students to register in Viksitbharat portal with the help of FAs and updated the data to Dean Office. 114 students from the Department of Production Technology provided feedback in Viksitbharat portal.
- **Mr. R. Mathiyazhagan** had discussion with **Mr. Prabu, Saint Gobain**, in Machine vision system development for taking images of object, for size measurement application and also assisted in imaging using machine vision system, operating CMM and surface roughness measurement machine operation.

[Events of December 2023, reported in January 2024]

*January*