

# MECHANICAL NEWS LETTER

DECEMBER-2024

## MECHANICAL ENGINEERING

universal engineering college , Thrissur



### VISION

Provide excellent engineering education to create competent and innovative mechanical engineers to cater the society with strong ethical values.

### MISSION

- To produce technically skilled and innovative engineering graduates through experienced faculty and robust infrastructure.
- Foster the students to achieve lifelong learning and to become competitive through proper curriculum delivery and holistic development strategies.
- To inculcate multidisciplinary approach in engineering and to prepare them for global skill set
- Mould the students to be socially, ethically and environmentally responsible citizens

# MECHANICAL News Letter



## One Day Workshop on CFD – Computational Fluid Dynamics

The Techno CAD Club of the Department of Mechanical Engineering, Universal Engineering College, in association with CSR-CFD, organized a One-Day Workshop on CFD – Computational Fluid Dynamics on 16th August 2024 for S8 Mechanical Engineering students, with 55 participants. The workshop aimed to create awareness of CFD concepts and industry-relevant software tools such as Open FOAM and ANSYS. The program began with a welcome address followed by a presidential address by the Principal, Dr. Jose K Jacob, who motivated students to strengthen their technical



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expertise. The technical sessions were handled by Mr. Antonio Joseph, who explained the fundamentals of CFD and open-source

software Open FOAM in the morning session, and Mr. Hridesh S, who demonstrated CFD analysis using ANSYS in the afternoon. Hands-on training was provided in the CAD lab, and the workshop concluded with

**UNIVERSAL ENGINEERING COLLEGE**  
DEPARTMENT OF MECHANICAL ENGINEERING

SFCFD  
Techno CAD

*One Day Workshop*  
ON  
**Computational Fluid Dynamics**

Thursday  
16-08-2024

ORGANISED BY  
TECHNOCAD CLUB  
IN ASSOCIATION WITH CSR CFD  
FOR S8 MECHANICAL STUDENTS

**Resource Persons:**

1. Mr. Antonio Joseph  
(Asst Professor, ME)
2. Mr. Hridesh S  
(Asst Professor, ME)

Learn the Basics of  
**CFD | Open FOAM | ANSYS**



a vote of thanks, marking a successful and informative learning experience for the participants.

## REPORT ON IMPACT LECTURE SERIES 2024

**UNIVERSAL ENGINEERING COLLEGE**  
Vallivattom P.O., Vellongallur Road, Thrissur, Kerala

### IMPACT LECTURE Series 2024

Sponsored By : \* MOE's Innovation Cell & AICTE, Government Of India

**SESSION 1**  
**Intellectual Property Rights And Issues**  
by **ADV. A B MANJU**  
Associate Partner - Branch Head at Altaic Global Cochin  
🕒 10:00 am - 11:30 am

**SESSION 2**  
**Innovation And Creativity In Entrepreneurship**  
by **CLINT K S**  
CEO and Head Product Design - Green Orbis  
🕒 1:00 pm - 2:30 pm

📅 29 AUGUST 2024, THURSDAY 📍 B-BLOCK SEMINAR HALL, UEC JOIN NOW ➔

The Impact Lecture Series 2024 was organized by the Innovation and Entrepreneurship Development Centre (IEDC) of Universal Engineering College, Vallivattom, Thrissur, on 29 August 2024 at the B-Block Seminar Hall under the sponsorship of the Ministry of Education's Innovation Cell and AICTE. The program aimed to create awareness among students about Intellectual Property Rights, innovation, creativity, and entrepreneurship. The first session, delivered by Adv. A. B. Manju, Associate Partner and Branch Head at Altaic Global, Cochin, focused on the importance of intellectual property, various types of IPR, patent filing procedures in India, and key patent criteria, supported by practical examples and case studies. The second session, handled by Mr. Clint K S, CEO and Head of Product Design at Green Orbis, emphasized innovation

and creativity in entrepreneurship, highlighting design thinking, product development, and market validation. Students from various departments actively participated and interacted with the speakers, making the sessions engaging and insightful. Overall, the program was highly beneficial and contributed significantly to fostering an innovation- and entrepreneurship-driven culture within the institution.



# REPORT ON INAUGURATION OF ARMS 2024 and TECHNICAL TALK ON Processing Parameters and Quality Requirements for Aerospace Forgings

The Department of Mechanical Engineering, Universal Engineering College, successfully inaugurated ARMS 2024 on 30 August 2024 at the B-Block Seminar Hall with a technical talk on “Processing Parameters and Quality Requirements for Aerospace Forgings.” The programme aimed to enhance students’ understanding of advanced manufacturing practices and industrial quality standards. The inaugural function began with a prayer and welcome address by the Head of the Department, followed

by the traditional lamp lighting. The Chief Guest and resource person, Mr. Mansoor P. K., General Manager, Steel and Industrial Forgings Ltd., delivered an insightful technical session highlighting the significance of aerospace forgings in critical He explained various forging techniques used in the aerospace industry and emphasized the role of

processing parameters, microstructure, and heat treatment in achieving desired mechanical properties. The talk also covered stringent quality requirements, international standards like AS9100 and



NADCAP, and inspection and testing methods essential for aerospace applications. The interactive session encouraged active student participation and provided valuable industrial exposure. The programme concluded with a vote of thanks and presentation of a memento, making the inauguration of ARMS 2024 both informative and inspiring while strengthening industry–academia interaction.

# Business Canvas Model

The Innovation and Entrepreneurship Development Centre (IEDC) of Universal Engineering College organized a one-day workshop on “Business Canvas Model” on 15 October 2025 at the Block B Seminar Hall. The workshop aimed to introduce students to entrepreneurial tools that help in developing and evaluating business ideas. During the session, the resource person explained the nine components of the Business Model Canvas and highlighted the importance of innovation and entrepreneurship in today’s competitive world. Students actively participated in team activities where they created and presented sample business models, followed by interactive discussions and feedback. The workshop enhanced students’ understanding of business planning, encouraged creative thinking, and motivated them to explore entrepreneurship as a potential career path.



# REPORT ON ANTI-DRUG AWARENESS PROGRAM

The Anti-Drug Awareness Program was conducted on 26 October 2024 at Universal Engineering College by the Department of Mechanical Engineering, with Mr. C R Pradeep, Grade Sub Inspector, Mathilakam Police Station (Thrissur Rural), as the guest speaker.

The session aimed to educate students about the harmful effects of drug abuse, legal consequences under the NDPS Act, and the importance of a drug-free lifestyle. The speaker discussed commonly abused substances, the stages of addiction, real-life case studies, and strict legal penalties related to drug possession and distribution. An interactive Q&A session addressed concerns about peer pressure, rehabilitation, and preventive measures.



The program successfully enhanced awareness, encouraged responsible decision-making, and promoted a safe campus environment. It also strengthened collaboration between the institution and local law enforcement, reinforcing the importance of social responsibility and healthy living among students.

## WORKSHOP REPORT

The Department of Mechanical Engineering, Universal Engineering College, organized a one-day Workshop on Leadership Skills on 26 October 2024 at 10:00 AM at the college campus, Mukundapuram, Kerala. The session was conducted by Ms. Suprabha C C, Assistant Professor, Department of ASH, with the objective of developing leadership qualities, communication skills, and professional readiness among students. The workshop covered key aspects of leadership including leadership styles, effective communication, emotional intelligence, decision-making, time management, teamwork, and ethical behavior, supported by real-life examples and interactive group activities. Students participated enthusiastically, engaging in discussions and sharing





experiences, which enhanced the overall effectiveness of the session. The workshop successfully improved students' confidence, interpersonal skills, and leadership mindset, making it an informative and inspiring learning experience that concluded with a vote of thanks by the organizing team.

## Future of Hybrid Vehicle Technology and Hydrogen

The Department of Mechanical Engineering, Universal Engineering College, in association with SAE UEC, organized a technical talk on “Future of Hybrid Vehicle Technology and Hydrogen” on 05 November 2024 at 9:30 AM in the B-Block Seminar Hall. The session was delivered by Mr. Jinesh Vinayachandran, Trainer at Devise Electronics and Academic Mentor at Little Flower Engineering Institute, with the objective of creating awareness about emerging automobile technologies and sustainable transportation solutions. The talk covered



the fundamentals and types of hybrid vehicles, including series, parallel, series-parallel, and plug-in hybrid systems, along with their working principles, regenerative braking, and energy management. The session also provided insights into hydrogen technology, discussing production methods, storage, fuel cell operation, benefits, and infrastructure challenges. An interactive discussion followed, where students clarified doubts related to efficiency, safety, and career opportunities in green mobility.

# REPORT ON ROAD SAFETY AWARENESS & MODERNISATION IN MOTOR VEHICLE DEPARTMENT



The Department of Mechanical Engineering, Universal Engineering College, organized a Road Safety Awareness and Modernisation in Motor Vehicle Department programme on 06 November 2024 at 10:00 AM in the B-Block Seminar Hall. The session was led by Mr. Sreekanth K. T., Assistant Motor Vehicles Inspector, Sub Regional Transport Office, Irinjalakuda, with the objective of creating awareness about road safety practices, traffic regulations, and recent modernization initiatives in the Motor Vehicle Department. The resource person emphasized safe driving habits such as wearing helmets and seat

belts, avoiding drunken driving, maintaining speed limits, and obeying traffic rules,

while also explaining the major causes of road accidents. He highlighted various digital and technological advancements adopted by the Motor Vehicle Department, including online license and vehicle registration services, automated testing tracks, e-challan systems, smart cards, and surveillance-based traffic monitoring. An interactive discussion enabled students to clarify doubts related to traffic rules, penalties, and licensing procedures. Overall, the programme was highly informative and successfully enhanced students' awareness of road safety responsibilities and modern motor vehicle services.



# REPORT ON SOFT SKILLS ADD-ON COURSE

The Department of Mechanical Engineering, Universal Engineering College, Irinjalakuda, organized a Soft Skills Add-On Course on 20 November 2024 from 9:30 AM to 12:30 PM at the college campus. The session was conducted by Mrs. Nirmala Parameswaran, National Trainer and JCI Trainer, with the objective of enhancing students' communication skills, confidence, personality development, and professional behavior. The program covered key aspects such as effective communication, body language, time management, teamwork, leadership qualities, and interview etiquette, supported by interactive activities and real-life examples. Students actively participated with enthusiasm and benefited from the



practical approach adopted during the session. Overall, the course was highly successful and helped students recognize the importance of soft skills in professional life, significantly improving their confidence and communication abilities.

# REPORT ON ADD-ON COURSE: PYTHON

The Add-on Course on Python was conducted by the Department of Mechanical Engineering, Universal Engineering College, in association with GP3 Cloud Innovations Pvt Ltd, from 16th to 20th December 2024 at the CADD Lab, Main Block.

The program aimed to provide students with fundamental and practical knowledge of Python programming, enhancing their logical thinking, coding, and problem-solving skills. The sessions covered core topics such as syntax, variables, data types, control



statements, functions, and file handling, along with hands-on practice. Experienced trainers guided students through real-time examples and practical exercises.

The course successfully improved students' programming knowledge, technical competence, and employability skills, encouraging the department to conduct more such skill-development programs in the future.

