

MECHANICAL NEWS LETTER

DECEMBER-2021

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



V.K Shamsudeen
Chairman



Dr. Jose k Jacob
Principal

Happiness is widely regarded as one of life's most valued aspirations. Yet, paradoxically, it often appears most elusive when we attempt to pursue it directly. Genuine happiness is seldom the result of relentless pursuit; rather, it emerges from moments of purpose, acts of kindness, and a spirit of gratitude. It is found when we approach our work with sincerity, extend selfless service to others, and learn to appreciate the simple joys that enrich our daily lives.

At Universal Engineering College, we are committed to fostering such an environment—one in which students, faculty, and staff experience joy in learning, pride in achievement, and fulfillment in meaningful contribution. By collectively focusing on excellence, compassion, and teamwork, we create a culture where happiness arises naturally as a reflection of shared values and purposeful engagement.

As the well-known saying reminds us, "Happiness is like a butterfly—the more you chase it, the more it will elude you. But if you turn your attention to other things, it will come and softly sit on your shoulder."

In the dynamic world of education and technology, change is constant, and challenges are inevitable. However, these challenges should not be viewed merely as obstacles, but as valuable opportunities to learn and grow. At Universal Engineering College, we firmly believe that every difficulty carries the potential to become an opportunity. It is through such situations that innovation flourishes, resilience is strengthened, and true leadership emerges.

In recent years, we have learned that uncertainty is an unavoidable part of life, yet our response to it defines our progress. I am proud to say that our students and faculty have consistently demonstrated courage, creativity, and dedication—whether in adapting to new technologies, exploring innovative learning approaches, or responding to the evolving demands of industry.

Every challenge our institution has encountered—academic, administrative, or personal—has further strengthened our determination to transform difficulties into opportunities for growth. This spirit of perseverance and commitment continues to guide UEC forward as a leading engineering institution.

As this newsletter highlights the accomplishments of our students and faculty, let us remember that success is not the absence of challenges, but the ability to learn from them and transform them into opportunities for progress.

MATHEMATICAL SOFTWARE WORKSHOP

The Mathematical Software Workshop, held on 2nd July 2021 from 10:00 AM to 12:30 PM, was conducted by Dr. Sudev Naduvath from Christ University, Bangalore. The workshop aimed to introduce participants to modern mathematical software tools and their applications in research and education. Faculty members, students, and research scholars attended the event, gaining insights into solving complex mathematical problems using technology. The sessions covered an introduction to software such as MATLAB, Mathematica, Maple, SageMath, and GeoGebra, along with symbolic computation, numerical analysis, graphing techniques, and interactive geometry. Participants also received hands-on training, which enhanced their practical skills and



UNIVERSAL ENGINEERING COLLEGE
NAAC Accredited Institution | ISO 9001:2015
Approved by AICTE | Affiliated to KTU

Department of Mechanical Engineering

Mathematical software workshop

Dr. Sudev Naduvath
Christ University, Bangalore

02/07/2021
10:00AM - 12:30PM



confidence in using these tools. The workshop received highly positive feedback, improving participants' proficiency in mathematical software and encouraging the integration of technology into teaching and research. Overall, the program successfully connected traditional mathematics with modern computational methods, and the organizers expressed gratitude to Dr. Sudev Naduvath and all contributors for making the event successful.

EXPERT TALK ON APPLICATION OF ARTIFICIAL INTELLIGENCE



UNIVERSAL ENGINEERING COLLEGE
ISO 9001:2015 | Approved by AICTE | Affiliated to KTU

Department of Mechanical Engineering

EXPERT TALK ON APPLICATION OF ARTIFICIAL INTELLIGENCE

Dr. T S Krishnan
Senior Manager at Mphasis
NEXT Labs

30/07/2021
10:00AM - 12:30PM

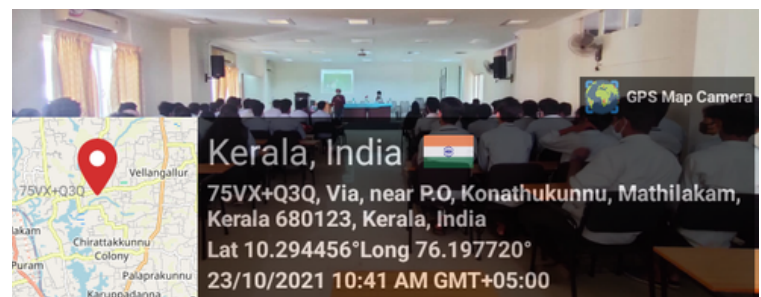
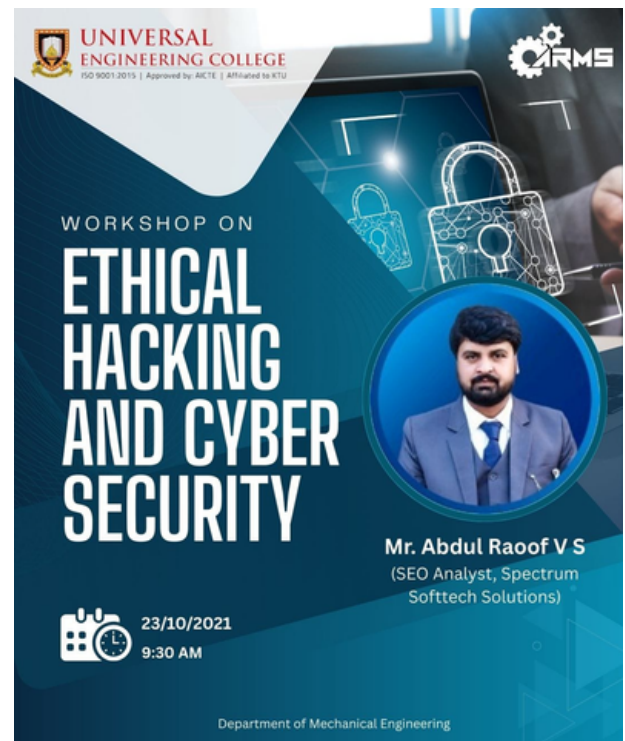
An Expert Talk on the Application of Artificial Intelligence was organized by the Department of Mechanical Engineering at Universal Engineering College on 30 July 2021 in the Seminar Hall, B-Block. The session was delivered by Dr. T. S. Krishnan, Senior Manager at Mphasis NEXT Labs. The programme included a welcome address, an expert lecture, a discussion on AI tools and industry use cases, an interactive Q&A session, and a vote of thanks. The talk introduced students to key AI concepts, including algorithms and machine learning, and highlighted real-world applications in industrial automation, customer analytics, and intelligent decision systems. Mechanical

Engineering students actively participated and gained a clear understanding of AI fundamentals, practical industry applications, and emerging career opportunities in the field. The session was informative and interactive, despite the absence of the Principal, Vice-Principal, and Dean.



WORKSHOP ON ETHICAL HACKING AND CYBER SECURITY

A one-day workshop on Ethical Hacking and Cyber Security was held on 23rd October 2021 at Universal Engineering College, led by Mr. Abdul Raouf V S, an SEO Analyst at Spectrum Softech Solutions and cybersecurity enthusiast. The workshop aimed to raise awareness about modern cyber threats, introduce ethical hacking principles, and provide basic practical skills to help students identify and prevent security vulnerabilities. The session included both theoretical discussions and hands-on demonstrations covering topics such as types of hackers, network security, cryptography, Wi-Fi hacking, phishing simulations, and legal aspects of cybersecurity. Tools like Kali Linux, Wireshark, and Metasploit were demonstrated in real-time attack and mitigation scenarios. Students actively participated and found the workshop highly engaging and informative. It enhanced their understanding of cybersecurity, encouraged responsible digital practices, and inspired interest in professional certifications like CEH and careers in ethical hacking. The workshop successfully achieved its objective of equipping students with foundational knowledge and practical exposure in cybersecurity.



PREPLACEMENT TRAINING PROGRAMME



PRE-PLACEMENT TRAINING



Mr. Cliff Marcus Dare
(Certified NLP Trainer,
Jay's Academy)



04/12/2021
9:30 AM

Department of Mechanical Engineering

The Preplacement Training Programme was held on 4 December 2021 from 9:30 AM to 12:30 PM at the Seminar Hall, B-Block, organized by the Department of Mechanical Engineering at Universal Engineering College. The session was conducted by Mr. Cliff Marcus Dare, a Certified NLP Trainer from Jays Academy, for final-year mechanical engineering students. The programme

included a welcome address, a soft skills and communication session, an interactive activity with Q&A, and a vote of thanks.



The training focused on communication skills, interview techniques, mindset development, and NLP-based strategies to manage stress and build confidence. Through mock interviews and real-world scenarios, students enhanced their preparedness and confidence for campus placements.

STTP IN SOFTWARE FOR RESEARCH IN MECHANICAL ENGINEERING



STTP IN SOFTWARE FOR RESEARCH IN MECHANICAL ENGINEERING

13/12/2021 - 15/12/2021

CADD Lab Main block

Department of Mechanical Engineering

The Short Term Training Programme (STTP) titled “Software for Research in Mechanical Engineering” was conducted by the Department of Mechanical Engineering, Universal Engineering College, from 13 to 15 December 2021 at the CADD Lab. The programme aimed to introduce research-oriented software tools, enhance modelling and simulation skills, and strengthen research capabilities. Over three days, participants learned basic and advanced modelling, simulation, analysis methods, and research applications. The STTP improved software proficiency, analytical skills, and overall research orientation among students and faculty



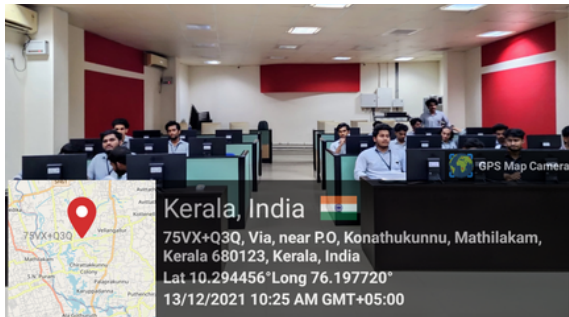
WORKSHOP ON CATIA

The Workshop on CATIA was conducted on 13 December 2021 from 10:00 AM to 12:30 PM by Mr. Reshu Ashokan, senior trainer at CADD Centre, Kodungallur. The half-day session introduced students to CATIA, a leading CAD software developed by Dassault Systèmes, widely used in mechanical, automotive, and aerospace industries. The workshop covered the CATIA interface, sketcher module, part design, and assembly modules, along with real-world industry applications. Participants received hands-on training in basic 3D modeling and assembly creation, along with practical tips

to improve efficiency.

Overall, the

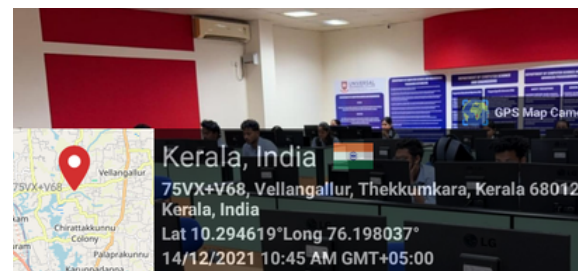
session enhanced students' confidence in using CATIA for academic and project work, improved their understanding of industrial design practices, and strengthened their interest in CAD as a professional skill



WEBINAR ON CHALLENGES IN ENVIRONMENTAL POLLUTION AND CONTROL



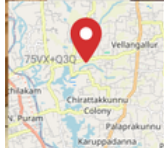
The Department of Mechanical Engineering at Universal Engineering College conducted an online webinar on 14 December 2021 titled "Challenges in Environmental Pollution and Control." The session was delivered by Chandrajith A V, CEO of Wimpey Speciality Chemicals LLC, and attended by Mechanical Engineering students. The webinar discussed key sources of industrial and urban pollution, current emission control trends, and innovations in chemical and biological treatment



methods. It highlighted the importance of sustainable industrial practices, effective policies, and industry responsibility in reducing environmental impact. The programme included a talk, case studies, a Q&A session, and concluded with a vote of thanks.

WORKSHOP ON BASICS OF PRIMAVERA

The Workshop on Basics of Primavera was conducted on 16 December 2021 at the CADD Lab, B-Block, by the Department of Mechanical Engineering, Universal Engineering College, in association with ARMS. The session was led by Mr. Vimal N A, Assistant Professor, and included both theoretical instruction and hands-on training. The workshop introduced students to project management fundamentals and the use of Primavera software for



Kerala, India
75VX+Q3Q, Via, near P.O, Konathukunnu, Mathilakam,
Kerala 680123, Kerala, India
Lat 10.294456° Long 76.197720°
16/12/2021 10:29 AM GMT+05:00

management skills through interactive and application-based learning.



WORKSHOP ON BASICS OF PRIMAVERA



MR. MANOJ
(CADD CENTRE, KODUNGALLUR)

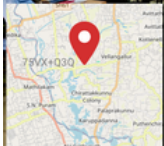
16/12/21

CADD Lab B-Block

Department of Mechanical Engineering

ADD ON COURSE ON CFD

The Department of Mechanical Engineering at Universal Engineering College conducted an Add-On Course on Computational Fluid Dynamics (CFD) on 27th December 2021 to enhance students' understanding of fluid flow and heat transfer simulations. The session, led by Assistant Professors Mr. Antonio Joseph V K and Mr. Hridesh Sreedharan, covered CFD fundamentals such as governing equations, meshing, boundary conditions, turbulence modeling, and solution



Kerala, India
75VX+Q3Q, Via, near P.O, Konathukunnu, Mathilakam,
Kerala 680123, Kerala, India
Lat 10.294456° Long 76.197720°
27/12/2021 10:40 AM GMT+05:00

strategies. Real-time simulations and case studies highlighted industrial applications and design optimization.

The interactive program successfully introduced key CFD concepts and encouraged students to pursue advanced learning in simulation-based engineering.



ADD ON COURSE ON CFD



Mr. Antonio Joseph V K
ASSISTANT PROFESSOR
DEPARTMENT OF ME



Mr. Hridesh Sreedharan
ASSISTANT PROFESSOR
DEPARTMENT OF ME

27/12/2021
Time : 10:00AM

DEPARTMENT OF MECHANICAL ENGINEERING