



MECHAZINE

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Department of Mechanical Engineering

Editor:

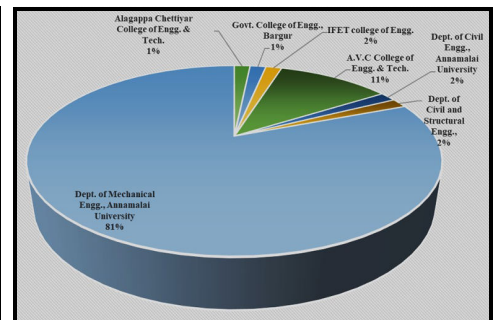
**The Head,
Department of
Mechanical Engineering**

Team Members:

1. K. Kumararaja, Research Scholar, Ph. D., (Mechanical Engineering)
2. P. B. Yuvaraj Kumar, Final Year, B. E. (Mechanical Engineering)
3. S. Sakthi Bhuvaneshwaran, Third Year, B. E. (Mechanical Engineering)
4. K. S. Naveen, Second Year, B. E. (Mechanical Engineering)

National Workshop Sponsored by RUSA 2.0

A two-day National Workshop on "Waste to Values: Opportunities and Challenges" was organized by the Department of Mechanical Engineering at Annamalai University on September 22nd and 23rd, 2022. Approximately 57 participants from various institutions took part in the event. To enhance the participants' skills, the second day focused on providing hands-on training at M/s NLCIL, Neyveli. On the second day morning, all the participants visited the Precasting Yard, where fly ash was used to manufacture bricks, compound slabs, windows, doors, paver blocks, etc.



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Mechanical Engineering Association - Inaugural

The inauguration of the Mechanical Engineering Association was held on September 23, 2022, at 11:00 AM in AUMTEC'71 Hall. Er. S. Ganapathy from the Vikram Sarabhai Space Center, Trivandrum, honored the event as the Chief Guest. The ceremony marked the beginning of the association's literary, cultural, sports, and placement activities, promoting collaboration and knowledge exchange within the mechanical engineering community.



Know your English

1. **Resilient** - (adjective) able to withstand or recover quickly from difficult conditions. Example: Despite facing numerous setbacks, she remained resilient and continued to pursue her goals.
 2. **Ubiquitous** - (adjective) present, appearing, or found everywhere. Example: Smartphones have become ubiquitous in modern society, with almost everyone owning one.
 3. **Ephemeral** - (adjective) lasting for a very short time. Example: The beauty of the cherry blossoms is ephemeral, lasting only a few weeks each spring.
 4. **Alleviate** - (verb) make (suffering, deficiency, or a problem) less severe. Example: Taking painkillers can help alleviate the symptoms of a headache.
 5. **Mellifluous** - (adjective) (of a voice or words) sweet or musical; pleasant to hear. Example: The singer had a mellifluous voice that captivated everyone in the audience.
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Industrial Visit - Final Year

Final Year Mechanical Engineering students embarked on an enriching industrial visit to various industries in Karnataka from October 12 to October 15, 2022. The insightful journey aimed at providing practical exposure to diverse manufacturing processes and technologies. Students engaged in interactive sessions, gaining valuable insights into real-world applications of their academic knowledge.



Industrial Visit - Third Year

Third-year Mechanical Engineering students explored Kerala's industries from October 11 to 15, 2022. The visit enriched their understanding of practical applications, fostering a deeper connection between theory and industry.



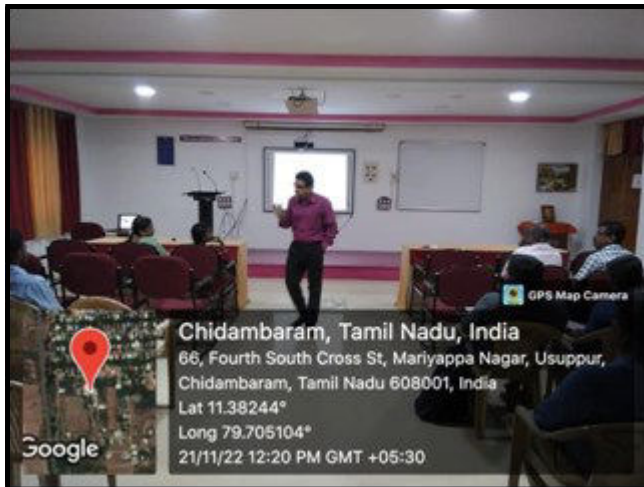
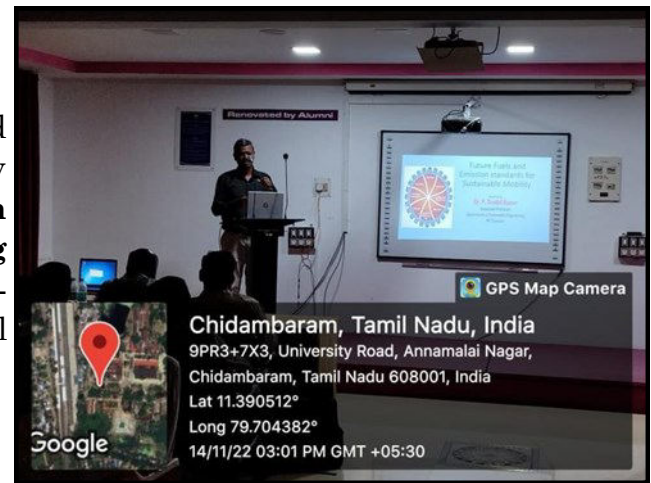
Precision Unleashed

"Precision Unleashed: Exploring the Fusion of 3D Printing and Artificial Intelligence"

The amalgamation of 3D printing and AI transforms manufacturing into a nexus of creativity and efficiency. As AI analyzes extensive datasets to refine printing parameters, it guarantees optimal results, elevating the manufacturing process to new heights of innovation. Industries, ranging from aerospace to healthcare, are witnessing groundbreaking developments. This integration promises breakthroughs in speed, precision, and sustainability, marking a transformative era in how mechanical components are conceptualized and created. The symbiosis of these technologies paints a promising picture for the future, where the boundaries of creativity and efficiency are continually pushed.

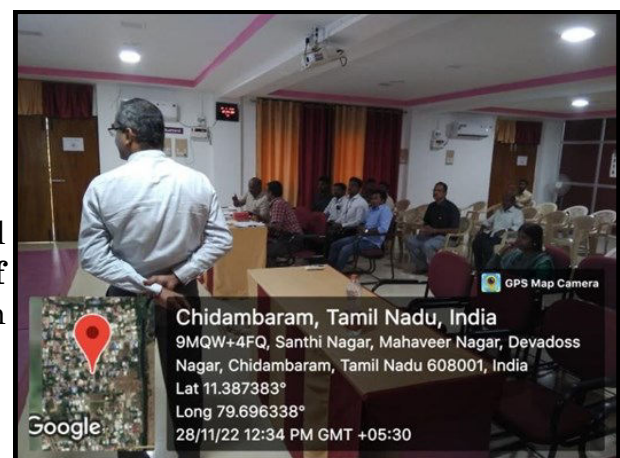
Special Lectures

A special lecture on "Future Fuels and Emissions" was delivered by **Dr. P. Senthilkumar, Associate Professor in the Department of Automobile Engineering at MIT, Anna University, Chennai**, on November 14, 2022. The lecture was attended by pre-final and final year students.



A special lecture on IC Engines was conducted by **Dr. G. Nagarajan, Professor of Mechanical Engineering at Anna University, Chennai**, on November 21, 2022.

A special lecture on E-Vehicles was delivered by **Dr. C. Ramesh Kumar, Professor of Mechanical Engineering at VIT, Vellore**, on November 28, 2022.



International Conference

Final year students participated and presented a technical paper by virtual mode in the Second International Black Sea Modern Scientific Research Congress held on December 21-22, 2022, Rize, Turkiye.

S. No.	Roll No.	Name of the Student	Title	Year
1	1932010026	SHIVASOMANAATH S	INVESTIGATION OF TWO WHEELER FOUR STROKE SINGLE CYLINDER ENGINE USING NANO ENERGIZER	Final
2	1932010017	LIJIN MARSHEL M		Final
3	1932010009	THANGARAJ K		Final
4	1932010014	TAMIZHSELVAN G		Final

Driving into the Future

“Driving into the Future: The Role of AI in Automotive Innovation”

AI's integration into the automotive industry has revolutionized vehicle functionality, safety, and efficiency. From self-driving capabilities to predictive maintenance, AI technologies are reshaping the way we interact with vehicles. With advancements in machine learning and computer vision, cars can now adapt to changing road conditions, anticipate driver behavior, and enhance overall driving experiences. The future of transportation is being driven by AI, promising a safer, more connected, and efficient automotive landscape.

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VISION:

The Mechanical Engineering Department endeavors to be recognized globally for outstanding education and research leading to well-qualified engineers who are innovative, entrepreneurial and successful in advanced fields of Mechanical Engineering to cater to the ever changing industrial demands and social needs.

MISSION:

1. Prepare the graduates to pursue life-long learning, serve the profession and meet the intellectual, ethical and career challenges.
2. Extend a vital, state-of-the-art infrastructure to the students and faculty with opportunities to create, interpret, apply and disseminate knowledge.
3. Develop the student community with wider knowledge in the emerging fields of Mechanical Engineering.
4. Provide set of skills, knowledge and attitude that will permit the graduates to succeed and thrive as engineers and leaders.
5. Create a conducive and supportive environment for all round of growth of the students, faculty and staff.

PROGRAM EDUCATIONAL OBJECTIVES:

1. Prepare the graduates with a solid foundation in Engineering, Science and Technology for a successful career in Mechanical Engineering.
2. Train the students to solve problems in Mechanical Engineering and related areas by engineering analysis, computation and experimentation, including understanding basic mathematical and scientific principles.
3. Inculcate students with professional and ethical attitude, effective communication skills, team work skills and multidisciplinary approach.
4. Provide opportunity to the students to expand their horizon beyond mechanical engineering.
5. Develop the students to adapt to the rapidly changing environment in the areas of mechanical engineering and scale new heights in their profession through lifelong learning.

Ph.D., Viva Voce

Congratulations on successfully defending theses! The dedication and hard work displayed have led to this achievement, marking an important milestone in academic journeys.

Ph.D., No.	Date	Name of the scholar	Title	Name of the supervisor
118	14.11.2022	R. Narayanamoorthy	Analysis of combustion flame studies by visualization techniques in SI engine fuelled with bio fuels	Dr. S. Sivaprakasam
119	21.11.2022	M. Vikneswaran	Experimental and numerical study of in-cylinder flame and engine characteristics of gasoline engine fuelled by oxygenated additives	Dr. C.G. Saravanan
120	28.11.2022	C. Wilson Dhileep Kumar	Study the effect of interlayer and grooves on AL606-SS304 explosive cladding	Dr. S. Saravanan