



MECHAZINE

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Department of Mechanical Engineering

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Department of
Mechanical Engineering**

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Driving Innovation: The Role of Digital Twins in Modernization"

Digital twin technology revolutionizes industries like manufacturing, healthcare, transportation, and urban planning. It creates virtual replicas of physical objects or systems, integrating data from sensors and IoT devices for real-time monitoring and analysis. In manufacturing, it optimizes processes and predicts maintenance needs. In healthcare, it models physiological systems for personalized treatment. In transportation, it optimizes vehicle performance and traffic flow. In urban planning, it models entire cities for sustainable development. Overall, digital twins offer vast potential for deeper insights and informed decision-making, driving innovation and transformation across various sectors.

"Athletic Excellence: Abi Vikram G Shines at Inter University Sports"



Abi Vikram G (II Year, Reg. No.: 212003003), representing the University, participated in the 100 meters athletics event at the State level Inter University sports held at Tamilnadu Physical Education and Sports University, Chennai, from January 9th to 12th, 2023. We extend our heartfelt wishes for his success, and we are proud of his remarkable athleticism and dedication, which contributed significantly to the competitive spirit of the event.

International Conference

A third year student participated and presented a technical paper by virtual mode in the 12th International Istanbul Scientific Research Congress on Life, Engineering, and Applied Sciences held on January 21-23, 2023, Istanbul, Turkey.

S. No.	Roll No.	Name of the Student	Title	Year
1.	2032010045	SAKTHI BHUVANESHWARAN S	LASER WELD- ING OF AUS- TENITIC STAIN- LESS STEEL	Third

Placements Stats (2022-23)



Mk Auto components (I) Ltd

S. No.	Particulars	Statistics
1.	Number of Final Year Students	93
2.	Number of Students Placed	47
3.	Percentage of Students Placed	51
4.	Cost To Company (Highest)	Rs. 3,20,000
5.	Cost To Company (Lowest)	Rs. 1,32,000

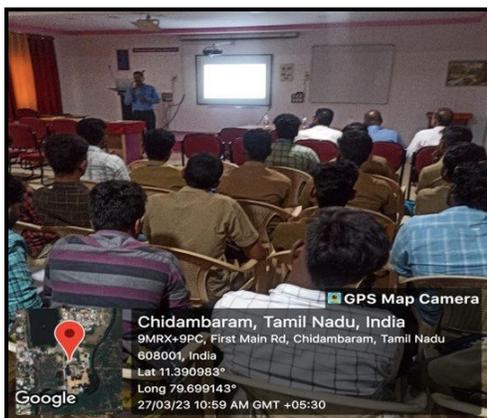


Special Lectures



Mr. K. Kumararaja, Research Scholar, Department of Mechanical Engineering, Annamalai University, delivered an **“Awareness Program on NPTEL via SWAYAM”** for 2nd and 3rd-year students. The event, held on 04.01.2023, drew 132 participants at GJR Hall, FEAT, Annamalai University.

Dr. V.P. Chandramohan, Professor in the Department of Mechanical Engineering at NIT Warangal, served as a resource person in the National Webinar on **“Renewable Energy Sources and Their Applications”** on February 13, 2023. The webinar, held at MEC Hall, Department of Mechanical Engineering, Annamalai University, attracted 33 participants.



Dr. N. Sendhil Kumar, Dean, Research and Consultancy, NIT Puducherry, Karaikal, delivered a special lecture on **“Concentrating Solar Power Systems”** on 27.03.2023 at MEC Hall, Department of Mechanical Engineering, Annamalai University. Nearly 30 students benefited from this lecture.

On March 30, 2023, Mr. P.L. Yegappan, Managing Director of M/s. Alpha Polymers, Salem, delivered a special lecture on **“Entrepreneurship”** at MEC Hall, Department of Mechanical Engineering, Annamalai University. Nineteen students from the Department of Mechanical Engineering attended.



Special Lectures

Dr. K. Srithar, Professor, Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai, delivered a special lecture on “**Effluent Desalination**” at MEC Hall, Annamalai University's Department of Mechanical Engineering. Thirty students attended the lecture .



Dr. Dhanalakshmi Sathishkumar, Scientist – F, CVRDE, DRDO, Avadi, Chennai, delivered a special lecture cum interaction on “**Research opportunities at CVRDE**” at MEC Hall, Department of Mechanical Engineering, Annamalai University, on May 15, 2023. 35 students, faculty and research scholars attended.

SWAYAM Courses

The following list of students have successfully completed the SWAYAM courses. The successful candidates are permitted to avail credit transfer in their subsequent semesters. Congratulation to all of them.

S. No.	Name	Enroll. no.	Course title	Institution	Score	Year
1.	Ajay S	2132090010	IC Engines and Gas Turbines	IIT Guwahati	56	Jan-Apr 23
2.	Palani vel S	2132090004	IC Engines and Gas Turbines	IIT Guwahati	48	Jan-Apr 23
3.	Chiranjeevi M B	2132090018	IC Engines and Gas Turbines	IIT Guwahati	63	Jan-Apr 23
4.	Sriram S	2132090011	IC Engines and Gas Turbines	IIT Guwahati	56	Jan-Apr 23
5.	Sivarajapandi	2232090002	Product Design and Manufacturing	IIT Kanpur	57	Jan-Apr 23
6.	Sudarsanan G K	2132010058	Product Design and Manufacturing	IIT Kanpur	62	Jan-Apr 23
7.	Madeshwaran A	2132010034	Product Design and Manufacturing	IIT Kanpur	64	Jan-Apr 23
8.	Vignesh R	2132010043	Product Design and Manufacturing	IIT Kanpur	68	Jan-Apr 23
9.	Santhosh U	2132010051	Product Design and Manufacturing	IIT Kanpur	58	Jan-Apr 23
10.	Balamurugan S	2132010012	Product Design and Manufacturing	IIT Kanpur	55	Jan-Apr 23
11.	Gopinathan A	2032010023	Computer Integrated Manufacturing	IIT Kanpur	67	Jan-Apr 23
12.	Harigovind U	2032010001	Computer Integrated Manufacturing	IIT Kanpur	61	Jan-Apr 23
13.	Ganapathi M	2132010017	Product Design and Manufacturing	IIT Kanpur	62	Jan-Apr 23
14.	Nijandhan K	2132010039	Machine learning for soil and crop Management	IIT Kharagpur	71	Jan-Apr 23
15.	Naveen K S	2132010037	Machine learning for soil and crop Management	IIT Kharagpur	60	Jan-Apr 23
16.	Sakthi Bhuvaneshwaran S	2032010045	Computer Integrated Manufacturing	IIT Kanpur	62	Jan-Apr 23
17.	Sheno Shallen S V	2132010052	Product Design and Manufacturing	IIT Kanpur	58	Jan-Apr 23

Events Organized



On January 20, 2023, Mr. Sriram Sankar delivered a lecture on **“United Nations Sustainable Development Goal 4 (UN SDG-4) focusing on quality education”** at MEC Hall, Department of Mechanical Engineering, Annamalai University. 40 students attended the lecture.

A National workshop on **“3D Modelling & Printing”** was held at MEC Hall, Department of Mechanical Engineering, Annamalai University, on January 30-31, 2023. Mr. J. Jagan from Vector Solutions, Puducherry, facilitated the workshop, which attracted 200 participants.



A Capability Enhancement workshop on **“Communication and Leadership Skills”** was conducted by Mr. Sriram Sankar at MEC Hall, Department of Mechanical Engineering, Annamalai University, on February 27-28, 2023. Two hundred participants attended the workshop.

A successful two-day National Conference on **“Engineering Applications of Alternate Fuels, Sustainable Energy, and Biomaterials”** took place on April 27-28, 2023. The event drew participation from 52 enthusiastic attendees from across India, who presented their technical research papers. The conference proceedings were published with an ISBN number.



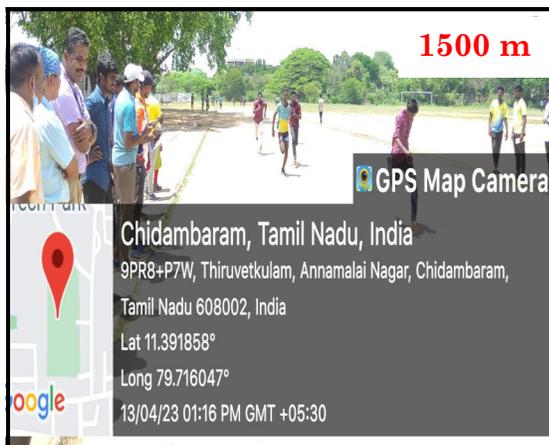
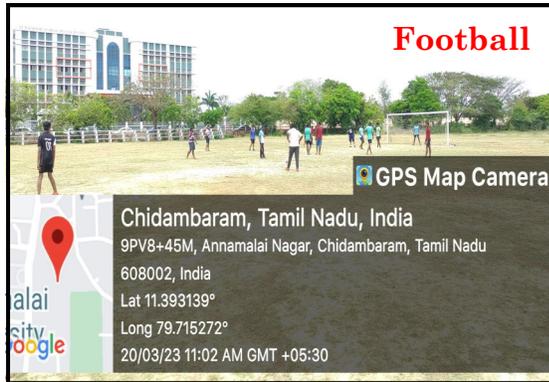
PhD Viva-Voce

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

Ph.D., No.	Date	Name of the scholar	Title	Name of the supervisor
121	13.02.2023	MR. RAJASEKAR R	STUDY ON THE EFFECT OF OPERATING TEMPERATURE AND THE PERFORMANCE CHARACTERISTICS OF SOLAR	Dr. R. Ramkumar
122	06.03.2023	MR. SELVAKUMAR P	EXPERIMENTAL INVESTIGATION OF MAGNETIC FORCE INTERACTION WITH SCALE FORMING ELEMENTS IN CON-	Dr. C.G. Saravanan
123	08.03.2023	MR. THIRUVENKATACHARI S	EXPERIMENTAL INVESTIGATION OF DIESEL ENGINE RUN ON AZOLLA BIOFUEL	Dr. C.G. Saravanan
124	27.03.2023	MR. PRASANNA P	STUDY ON A NOVEL EUTECTIC PCM TO ENHANCE THE ELECTRICAL EFFICIENCY OF THE PV MODULE	Dr. R. Ramkumar
125	21.04.2023	MR. PRATHIBAN S	DEEP LEARNING ANALYSIS OF HEAT PIPE HEAT EXCHANGER	Dr. B. Sivaraman
126	21.04.2023	MR. PREMNATH M	INVESTIGATION ON CERAMIC FOAM BASED CATALYTIC CONVERTERS FOR DI DIESEL ENGINES USING DIFFERENT	Dr. G. Murugan
127	15.05.2023	MR. PUTTI VENKATA SIVA TEJA	EXPERIMENTAL STUDIES ON EFFECT OF THERMAL CYCLING ON TITANIUM-6AL-4V ALLOY	Dr. S. Manikandan
128	22.05.2023	MR. RAMESH T	EFFECTIVE UTILISATION OF PROSOPIS JULIFERA BIO-DIESEL – IGNITION BOOSTER BLENDS IN A CRDI DIESEL ENGINE PERFORMANCE AND CLEANER EMISSIONS BY MULTI RESPONSE OPTIMIZATION	Dr. A. P. Sathiyagnanam

MECH SPORTS

Mechanical Engineering Association sports activities were conducted on 20 and 21 March 2023 and 13 April 2023. Dr. S. Vaidyanathan, Professor and Head, Department of Mechanical Engineering, inaugurated the activities. The Department staffs and students participated in the MECH SPORTS-2K23.



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[HTTPS://WWW.ANNAMALAIUNIVERSITY.AC.IN/E09_INFO.PHP?DC=E09](https://www.annamalaiuniversity.ac.in/E09_INFO.PHP?DC=E09)



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.

Students Endowments

S. No.	Roll No.	Name of the Student	Endowment Title	Year
1.	191003040	KARTHIKEYAN S	Sri Durgamani Sunderasan Charities Endt	Final
2.	191003087	YUVARAJ KUMAR P B	Thiru S.M.Meyyappa Chettiyar & Late Tmt Meena Achi of Shanmuganathapuram	Final

Know your English

Here are a few pairs of words that have different meanings but are spelled similarly:

1. **Desert:** a dry, barren area of land with little or no vegetation.

Dessert: a sweet course typically served at the end of a meal.

2. **Principal:** a person who holds a high position or plays a leading role.

Principle: a fundamental truth or proposition that serves as the foundation for a system of belief or behavior.

3. **Stationary:** not moving or not intended to be moved.

Stationery: writing paper and other office materials.

4. **Complement:** something that completes or makes perfect.

Compliment: a polite expression of praise or admiration.

5. **Capital:** the most important city or town of a country or region.

Capitol: a building in which a legislative body meets.