JAN 2021

DHANALAKSHMI SRINIVASAN ENGINEERING COLLEGE

(Approved by AICTE and Affiliated to Anna University, Chennai, Chennai)

Accredited with 'A' Grade by NAAC

Perambalur – 621212. Tamilnadu

MECH ARENA

NEWSLETTER ISSUE: JAN 2021

DEPARTMENT OF MECHANICAL

Chairman's Message

The newsletter which is being rolled out today marks the launch of an effervescent activity that would enable the Management to bring out to the eyes of the competitive world, the academic achievements of our prestigious institution. Dhanalakshmi Srinivasan engineering College has grown in leaps and bounds, hurtling across barriers along the way. This has been made possible with the collaborative effort of the Management, the Staff and the Students. I congratulate everyone for their commitment.

In this Issue,

Editorial Board

About The Department

- The Department of Mechanical Engineering was started in the year 2005. The Department offers Undergraduate Programme (B.E) in Mechanical Engineering and Postgraduate Programmes (M.E.) in CAD/CAM. The Department of Mechanical Engineering offers an excellent teaching-learning environment with modern state-of-the-art facilities and well-experienced faculty members The Department has an active students technical association It disseminates knowledge through various activities like special lectures/workshops/seminars/conference, competitions, technical quiz by eminent practitioners of the profession. Regular industrial visits/training/Internships to bridge the gap between theoretical and practical knowledge are arranged.
- The Department involves in value added courses and international certification programmes in association with leading training providers in the areas of drafting, modelling, simulation and analysis of engineering systems during semester holidays. The faculty members consistently interact with technical societies, to promote innovation and enrich the knowledge, skill and behaviour of students. The Department encompasses professional associations such as International Association of Engineers (IAEng), Institution of Engineers (IE), Institute of Research Engineers and Doctors (IRED) which provides students a platform to acquire various hard and soft skills.
- The department boasts of well-qualified and committed faculty ably supported by the technical supporting staff. The students have access to state of the art laboratories and workshops, which enable them to face the challenging needs of the industries and research institutions. The students are provided enough opportunities to specialize in the areas of CAD, CAM, ROBOTICS, MECHATRONICS etc. With expertise over a wide range of domain specialization. The Department aims to attain excellence in academic teaching and learning, research and extension activities. The areas of research focus include design, manufacturing, materials and thermal engineering.

VISION

- To develop highly skilled Mechanical Engineers dedicated to serving society.

MISSION

- To develop competency in emerging technologies through knowledge and skill based education
- To provide conducive environment for research and innovation to cater the societal needs
- To inculcate moral and ethical values to become socially responsible engineers

PROGRAM EDUCATIONAL OBJECTIVES

This Course is conducted to achieve the following Programme Educational Objectives (PEOs):

- Academic Excellence Excel as successful engineers or entrepreneurs.
- Leadership Quality Become effective leaders, demonstrating professionalism and a commitment to lifelong learning.

PROGRAM SPECIFIC OUTCOMES

PSO1: Apply fundamental and advanced concepts in mechanical engineering across multiple domains, such as materials, design, manufacturing, and thermal engineering, to effectively design, develop, and implement complex products and systems.

PSO2: Identify, select, and effectively utilize ICT tools commonly employed Mechanical Engineering such as Computer-Aided Design (CAD) software, simulation software, and data analysis tools to create and apply innovative solutions for the betterment of society.

EVENTS ORGANIZED

WEBINAR ON Stress Management Dated 21-09-2021

A recent webinar on Stress Management was conducted, focusing on equipping participants with effective strategies to handle stress in various aspects of life. The session covered key topics such as understanding stress triggers, coping mechanisms, and promoting overall well-being.

Key takeaways from the webinar included:

1. Identifying Stressors: Participants learned how to identify common stressors in their personal and professional lives, enabling them to address these challenges proactively.
2. Stress Reduction Techniques: The webinar explored practical techniques such as mindfulness, relaxation exercises, and time management strategies to reduce stress levels and improve mental health.
3. Work-Life Balance: Emphasis was placed on achieving a healthy work-life balance, emphasizing the importance of self-care, setting boundaries, and prioritizing tasks effectively.
4. Building Resilience: Strategies for building resilience and adapting to change were discussed, empowering participants to navigate stressful situations with resilience and confidence.

Attendees found the webinar informative and valuable, with actionable insights that can be applied in daily life to manage stress more effectively and enhance overall well-being.

WEBINAR on Real-World Application of Nanotechnology in Energy Applications and Automobiles dated 25-08-2021

Our recent webinar delved into the fascinating realm of nanotechnology and its practical applications in energy systems and the automotive industry. The session provided valuable insights into how nanotechnology is revolutionizing these sectors with innovative solutions and enhanced performance.

Key highlights of the webinar included:

1. Nanomaterials for Energy Storage: Participants gained insights into the use of nanomaterials such as graphene and carbon nanotubes for improving energy storage devices like batteries and supercapacitors, leading to higher efficiency and longer lifespan.

2. Nanotechnology in Solar Cells: The webinar explored how nanotechnology is optimizing the efficiency of solar cells through materials like quantum dots and nanostructured coatings, paving the way for sustainable energy solutions.
3. Nanocomposites in Automobiles: Attendees learned about the role of nanocomposites in lightweighting vehicles, enhancing fuel efficiency, and improving mechanical properties for safer and more durable automobiles.
4. Nanotechnology for Emission Control: The session discussed nanomaterial-based solutions for reducing emissions in vehicles, contributing to environmental sustainability and regulatory compliance.

The webinar sparked engaging discussions on the potential of nanotechnology to drive innovation and address challenges in energy and automotive sectors, highlighting opportunities for collaboration and advancements in these fields.

FACULTY PUBLICATIONS

Sl. no.	Authors Name	Title	Name of the Journal	Volume /Issue/ pp	Year
1	S R Parthiban, M Loganathan , R Venkatesh , V Vijayan	Effect of the use of biodiesel on the materials of the engine components	Journal of scientific & industrial research **(SCIE)**	80: 606 – 611	July-2021
2	S Anbu, Jewel Tom, P Arunkumar, K Gurunath	Heat transfer augmentation of Al_2O_3/DI water nanofluids with spiraled rod inserts in a circular tube under turbulent flow	International journal of research publication and reviews	2 (10) : 632 – 638	Oct-2021

Patent Details

Sl. No.	Inventor Name	Year of Filing	Title	Reference Number	IP Status	Applied For
1	J. Arunprasad S. Sugumar	09-09-21	Development of Ploughing and Seed Sowing Robot for Groundnut Crop	202141040900	Published	INDIAN PATENT

Details of fund received

Sl. No.	Faculty Name	Name of the Project	Name of the Funding agency	Date of Applied	Amount (Rs)	Status
1	Dr. J. Arunprasad	The effect of lanthanum oxide nanoparticles on the performance, emission, and tribological properties of biodiesel from naviculla sp. algae	TNSCST	2021	7500	Received

Student's Participation

S.NO	STUDENT NAME	TITLE OF THE EVENT	PLACE OF THE EVENT	DATE
1	GOPI KRISHNAN. S	3d Printing: Defence And Aerospace Applications	Vignan Institute Of Technology & Science, Andhra Pradesh	02.07.2021
2	S SURESH			
3	DHASARATHAN A			
4	KARAN M			
5	JOTHI HARIHARAN R			
6	MANI BALA S			
7	MANOS D			