

2022

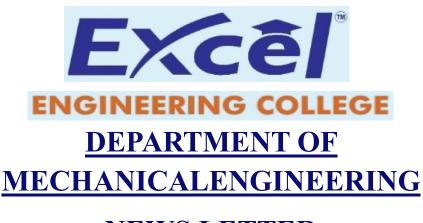
volume 1, issue 3 March

Excel Engineering College









NEWS LETTER

2022-23-Volume-1: Issue-3-MARCH

VISION OF THE DEPARTMENT

To create competitive manpower in the field of Mechanical engineering for the advantage of mankind

MISSION OF THE DEPARTMENT

- To create a conductive learning environment to make student as competent engineers.
- To nurture the entrepreneurial ability among students
- To maintain sustainable development for creative learning to serve the engineering society
- To inculcate human values and sensitivity

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEO 1: Graduate will have the ability to handle industrial challenges through advanced engineering technologies.

PEO 2: Graduate will have the capability to become socially, intellectually, and ethically responsible Mechanical engineers.

PEO 3: Graduate experties with essential technical, managerial and soft skills that make them to be professionally competent.

PROGRAMME SPECIFIC OUTCOMES (PSOS)

On completion of the B.E (Mech) degree the Mechanical graduates will be able to:

PSO1: Ability to apply their knowledge to design and analyze by using software tools.

PSO 2: Engage them professionally in industries or as entrepreneurs in the field of manufacturing and design.

PSO 3: Apply CAD/CAE tools to design and analyze the mechanical components.

KEY FINDINGS IN MECHNICAL ENGINEERING

Topological Metamaterials

Researchers developed 3D topological metamaterials that enable control over elastic (mechanical) waves at low frequencies, with multiple distinct frequency bands. These allow for polarization-, frequency-, and layer-dependent wave control arXiv

There was also work on *multi-stable/reconfigurable mechanical metamaterials* that support topological edge states. These structures can change their configuration and thereby switch the mechanical/wave propagation properties. arXiv

Mechano-intelligence / Phononic Metastructures

Studies have been exploring "mechano-intelligence" where the mechanical structure itself (e.g. phononic metastructures) embodies aspects of sensing, decision-making, and actuation/command, not relying only on external electronics. For instance, physical reservoir computing implemented in phononic metastructures allowing self-tuning wave control and wave-based logic.

ACADEMIC ACTIVITIES



Collaborate with Society of Automotive Engineers conducted a "**Design Contest on Bicycles**" **Mr.K.Aruikumar**, Assistant Professor, Dept. of Mechanical Engineering, Excel Engineering College, Komarapalayam.

Collaborate with Society of Automotive Engineers ARHAKRZ association conducted "Opportunities for Quality Control Engineers for Industries" Mr. K. Jayaseelan Quality Lead-Process ware, Bangalore.





Collaborate with Society of Automotive Engineers conducted a "Product Presentation on Two Wheeler Vehicle" Dr. A. Karthikeyan Associate Professor Dept. of Aeronautical Engineering, Excel Engineering College, Komarapalayam.

Collaborate with Society of Automotive Engineers conducted a "Vehicle Health Monitoring and Maintenance" Mr. M.Sampathkumar Assistant Professor, Excel Engineering College, Komarapalayam





Collaborate with ISTE conducted a "SAE Inauguration & Recent Advances in Automotive Engineering" Dr.V.S.Saravanan Chairman SAEISS Erode Division, Junior Vice President, Indoshell Casting Pvt. Ltd, Coimbatore

Collaborate with Engineers "Electric Vehicles" Chairman SAEISS, Pvt. Ltd, Chennai



Society of Automotive conducted a Seminar on **Mr.S.Sanmugam** Farmer Director, Design Teck India

STUDENTS ACHIVEMENTS



Anish Kumar R, a student from fouth-year, won on second prize at a paper presentation competition held on January 13, 2022. The event took place at Bannari Amman Institute of Technology.



Nivas K. S., a fourth-year student, won first prize in the Sheet Metalcompetition held at SAE L.



Deepan Raj M., a third-year student, won second prize in the Paper Presentation competition held at Bannari Amman Institute of Technology on March 22, 2022

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