

Fifth International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering

ERCAM 2024



ERCAM

Date: December 12th & 13th, 2024

Mode: Hybrid

Organised by



NITTE | NITTE MEENAKSHI
INSTITUTE OF TECHNOLOGY
EDUCATION TRUST

PN No. 6429, Yelahanka, Bengaluru, 560 064.

First Call for Papers

Manuscripts are invited for the Fifth International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering (ERCAM-24). Prospective authors are invited to submit full length original research papers which have not been submitted/ published/ under consideration any where in other conferences/ journals. Papers should be in English, which is the official language of the conference.

All the submitted manuscripts will be sent for double-blinded peer review and the corresponding authors will be notified about the outcome of the review process. Full Papers are limited to 8 pages.

All submitted papers must comply with the template available in <https://www.nmit.ac.in/ercam.php>

Manuscripts in electronic format (DOC, DOCX only) to be submitted via <https://cmt3.research.microsoft.com/ERCAM2024> (Microsoft conference management tool)

Publishers: All Accepted Manuscripts will be published in Scopus/web of science Indexed conference proceedings with additional charges.

Important Dates

Conference Dates : December 12 and 13, 2024
Paper Submission Deadline : September 25, 2024
Notification of Authors : October 10, 2024
Registration Deadline : October 25, 2024

Registration Fees

Registration Fees for any Delegates is INR 2,000/-

- Note: Registration of one of the authors for the conference is mandatory. Registration fee includes the registration kit, lunch on both the days & conference Banquet.
- Rs. 2,000/- will be charged for Non-Authors/Accompanying person.
- Rs. 1,000/- will be charged for the student registration.
- *For Paper Publication in indexed journals is chargeable.
- Institutions with more than 5 papers accepted for publication will be given a special discount in registration of Rs. 1,000/- per paper.

Guidelines for Registration

Registration Fee is to be paid in the form of

- Cheque / Crossed Demand Draft drawn in favor of "Nitte Meenakshi Institute of Technology" payable at Bengaluru, INDIA

- Wire transfer through NEFT as per the following details:

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MICR Code : 560211006
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Branch : Yelahanka
Place : Bangalore
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About NMIT

Established in the year 2001, named after Meenakshi Hegde, wife of the Founder of Nitte Education Trust, Justice K.S. Hegde, NMIT is affiliated to VTU and one of the youngest Engineering colleges in the Country to be conferred the prestigious Autonomous Status by the UGC in the year 2007 itself, and also is accredited with NBA (Tier-1) and NMC 1A+ 1 Grade and Platinum Grade by AICTE-CII apart from getting ranked 183 in India among technical institutions, by the NIRF, Ministry of Education, Government of India in the year 2022. NMIT has bagged 5th Rank in the year 2021, among the Top Private/Self Financed Institutes in India in the survey conducted by 'Atal Ranking of Institutions on Innovation Achievements', under the aegis of Ministry of Education, Government of India. NMIT was the lead college in a consortium of seven prominent colleges that had for the first time in India successfully built and launched STUDSAT, a PICO Satellite. As per the records, the launching took place on 12th July, 2010 from Sriharikota through ISRO's PSLV-CI 5 vehicle. The STUDSAT team's achievement is listed in the Limca Book of Records 2011 edition. The Institution houses 10 'Centers of Excellence' (CoE) in Design and Development of Small Satellites, Robotics, Nano Materials & MEMS, Design Engineering and Process Simulation, Aerospace Engineering and IoT, Power Engineering, Quantum Computing, Cyber Security, Women Empowerment and Additive Manufacturing, attracting young research talents from all over the country and abroad. The Institution Offers :- 4-year Under Graduate - Bachelor of Engineering (in Aeronautical, Artificial Intelligence & Data Science, Artificial Intelligence & Machine Learning, Civil, Computer Science, Electronics & Communication, Electronics & Communication (VLSI) Electrical & Electronics, Information Science, Mechanical Engineering, 2-Year Post Graduate - Master of Technology (Defence Technology, Renewable Energy, Structural Engineering, Robotics & Artificial Intelligence), 2-Year Post Graduate - Master of Computer Application (MCA), 2-Year Post Graduate - Master of Business Administration (MBA) and Ph.D programs (under VTU and UoM).

About ERCAM 2024

Today, multidisciplinary research has become vital in the development of a wide range of technological processes and systems. The role of Civil, Aeronautical, and Mechanical Engineering in the country's economy and societal evolution has long been demonstrated. Some of the areas drawing the attention of researchers worldwide in developing various engineering systems include civil and hydraulic structures, waste management, transportation engineering, robotics, MEMS, CFD, composite materials, aerodynamics, gas turbines, and propulsion. The International Conference, ERCAM-2024, is envisaged to bring together specialists and practitioners from various industries, R&D institutes, and academicians from around the world, providing a forum for the exchange of knowledge on recent trends in major sectors of materials, processes, and systems pertaining to Civil, Aeronautical, and Mechanical Engineering with multidisciplinary approaches. The Fourth International Conference ERCAM 2024 focuses on the theme "Materials, Mechanics, Structures, Systems, and Sustainability." The conference will bring together leading academicians, scientists, researchers, and industry experts in the domains of interest from across the globe. Topics of interest for submission include, but are not limited to, the following: In active collaboration with University Putra Malaysia, Gazi University, and North Dakota State University, Fargo, USA.

Sponsorship Categories

PLATINUM SPONSOR'S FEE: Rs 1,00,000/- 15 minutes key slot presentation time in the seminar hall | Three complimentary conference registrations with kits | Logo on the main conference banner | One stall to exhibit their products and posters | Logo on the front cover page of the souvenir and full page advertisement in the souvenir.



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Research Manuscripts and Proposals are invited in the following topics:

Theme	Tracks		
	Mechanical Engineering	Civil Engineering	Aeronautical Engineering
Materials	• Smart and multifunctional composite materials • Nano materials • Metal Alloys, Ceramics, Graphene and Polymers • Environmental and Green Materials • Energy harvesting materials • Bio Materials • Thermal/Fluid systems & Analysis • CAD/CAM/CAE & Robotics	• Advanced materials for Structural, Geotechnical, Hydraulic Structures and Transportation Applications including Micro and Nanomaterials	• High enthalpy materials • High temperature materials, composites • Conventional Aerospace materials and metals • Advanced materials and manufacturing • Smart and intelligent materials • Antimatter • Carbon Nano Tubes
Mechanics	• Computational Mechanics • Solid mechanics • Mechanics of Functionally Graded Material (FGMs), Porous and Nano-composites • Tribology • Biomechanics • Non-Newtonian fluid flow • Turbulent fluid flow	• Solid and Fluid Mechanics • Computational Mechanics of Civil Engineering Structures	• Linear, Non-linear, FSI and Aeroelasticity • Drones, Parachutes, Balloons and Aerostats • Computational and Applied Mechanics in Aerospace systems • Analytical Methods and Solution Mechanism • Aeroacoustics
Structures	• Kinematics & Dynamics • Fatigue, Fracture & life cycle analysis • Smart Structures-Vibration & noise control • Bio-Inspired Structures • Structural health monitoring • Biomechanical designs & applications • Fluid-Structure Interactions	• Static and Dynamic behaviour of Civil Engineering Structures • NDT in Civil Engineering • Reliability Analysis and Optimisation Techniques • Earthquake Resistant Analysis and Design of Structures	• Static and Dynamic behaviour of Aerospace Structures and materials • Rocket, Helicopter, Missiles and Spacecraft Technologies • NDT in Aerospace systems • Conventional/Non-conventional method in structural design • Optimization of Aerospace structures • Stealth structures
Systems and Industry 5.0	• Sensors and structural identification • MEMS/NEMS • Vibration, Acoustics and Condition Monitoring • Thermal/Fluid systems & Analysis • CAD/CAM/CAE & Robotics • Artificial Intelligence & Machine Learning • Data Analytics	• Structural Systems, Fluid Flow Systems for Civil Engineering including IoT, BigData, AI and their applications for Smart Constructions and Maintenance	• Virtual method in Aerospace system, Materials management • Advances in Aerospace technologies. • Optimization Techniques • Reliability Analysis • System Design • Experimental Aerodynamics • Transonic, Supersonic and Hypersonic Flow Analysis • Industrial Aerodynamics

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