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NATIONAL CONFERENCE ON RECENT ADVANCES IN ENGINEERING AND TECHNOLOGY -2025

(NCRAET 2K25)

23rd April 2025

Organized By

THE DEPARTMENT OF MECHANICAL ENGINEERING

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(Deemed to be University under Section 3 of the UGC Act 1956)

Accredited by NAAC (Second Cycle)

Kumaracoil-629 180, Thuckalay,

Kanyakumari District, Tamil Nadu, India.

VENUE: AC Auditorium

GREETINGS FROM NICHE

The Noorul Islam Centre for Higher Education (NICHE), Kumaracoil, Kanyakumari District, Tamil Nadu, one of the prominent Deemed to be Universities in India, takes immense pleasure in announcing "National Conference on Recent Advances in Engineering and Technology -2025, (NCRAET-2025). The Conference will be a platform to focus on the recent advances in Mechanical Engineering and other emerging technologies to be held on 23rd April 2025 at NICHE. NCRAET-2025 aims to provide an opportune forum and vibrant platform for Researchers, Academicians, Scientists and Industrial Practitioners to share their original research work, patents, findings and practical development experiences on the specific new challenges and emerging issues confronting the nation.

A BRIEF HISTORY ABOUT THE UNIVERSITY

NICHE - comprising of Noorul Islam College of Engineering as its constituent teaching unit has been declared as a Deemed-to-be-University by Ministry of Government of India under section 3 of UGC Act, 1956, on the advice of UGC, vide Notification No.F.9-51/2004-U.3 dated 8th December 2008. The University is run by the NICHE Society with Janab Dr A.P. Majeed Khan as President of the Society, NICHE and the Chancellor of the University, NICHE. The NICHE campus at Kumaracoil, Thuckalay in Kanyakumari District of Tamil Nadu is in the serene and lush green base of Velimalai, a spectacular part of Western Ghat Hills near the historically famous Padmanabhapuram Palace. It is only 1.5 km interior towards the foothills of the mountains from Kumaracoil Junction on the Kanyakumari District, Thiruvanthapuram National Highway (NH-47) about 30km from Kanyakumari and 60 km from Trivandrum, the capital city of the State of Kerala.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering at the NICHE is one of the largest and most respected departments in the South India, consistently achieving high ratings for teaching quality and research. It was established during 1995. The department offers BE (Mechanical Engineering), ME (Computer Integrated Manufacturing), ME (Thermal Engineering) and Ph.D. in Mechanical Engineering [Full time and Part time categories]. At present, about eighty-five research scholars are working towards their Ph.D. degree.

The expertise of our staff covers a wide range of specialist areas and our mission is to carry out research in fundamental science through practical industrial applications. The faculty members are grouped under three broad specializations-Design, Manufacturing and Thermal Engineering ongoing research areas include Numerical Heat Transfer & Fluid Mechanics, Supersonic Combustion, Alternate fuels, Supply chain Management, Composite Materials, Nano Materials, Artificial Intelligence, Simulation of Smart Materials, Material Joining Technique, Scheduling, Computer-Aided Design, Computer-Aided Manufacturing, Robotics and Automation etc. The academic activities are supported by 24 laboratories. About 380 research articles were published from the department in peer-reviewed journals. The department also publishes a bi-annual National Journal of Emerging Technology in Mechanical Sciences Engineering.

OBJECTIVE OF THE CONFERENCE

The objective of the conference is to provide a platform for the exchange of ideas amongst scholars in various disciplines, present the state of the art innovations and point out the new trends in current research activities and emerging technologies. It is also proposed to have an assembly of eminent persons in their area of specialization with fair share of invited talks and workshop materials in all relevant fields, for the delegates of the Conference.

CALL FOR PAPERS

The authors who wish to contribute to the conference are solicited to submit their papers that illustrate research results, projects, surveying works and industrial problems addressing state-of-the-art research and development in all areas related to Engineering and Technology. In particular, but not limited, the following topics are expected to be addressed by authors.

- Advanced Materials and Manufacturing Processes
- Renewable Energy and Green Technologies
- · Mechanism, Materials and Metallurgy
- Management Studies
- · Science [Applied], System and Simulation
- · Control, Communication and Computation
- Sustainable Infrastructure Development
- Biomedical Engineering and Healthcare Innovations

- · Information and Communication Technologies (ICT) for Development
- Artificial Intelligence/Machine Learning/Deep Learning Applications
- · Transportation and Urban Mobility Solutions
- · Water Resources Management and Environmental Engineering
- · Disaster Mitigation and Resilient Infrastructure
- · Robotics and Automation for Social Impact
- · Cross-Cultural Perspectives in Engineering Education and Research
- Smart Cities and IoT (Internet of Things) Applications
- · Image Processing/Video Processing Applications
- · Humanitarian Engineering and Global Development Initiatives
- · Aerospace and Defense Technologies
- · Ethical Considerations in Engineering Innovation
- · Entrepreneurship and Innovation Ecosystems in Engineering
- · Smart Management Systems

PUBLICATION

All accepted papers will be published in the conference proceeding with ISBN Number and selected paper will be published in bi-annual National Journal of Emerging Technology in Mechanical Science and Engineering.

MANUSCRIPT SUBMISSION

The authors are expected to submit original research papers which have not been submitted elsewhere in other conference and journals paper should be submitted through Email: ncraet2k25@gmail.com. The author should strictly follow the IEEE format. For further queries in this regard, please email to ncraet2k25@gmail.com and visit website www.nichemechanical.com.

IMPORTANT DATES

Full Paper Submission: 2nd April 2025 Notification of Acceptance: 4th April 2025

Final Paper Submission and

Author's Registration: 7th April 2025 Conference Date : 23rd April 2025

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