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ABOUT DST-ANRF

The Anusandhan National Research Foundation (ANRF) was established under the ANRF Act 2023 to promote research and innovation across India. It supports universities and research institutions by providing strategic direction and funding, in line with the National Education Policy (NEP-2020). It is imperative to build the basis for a continuous supply of human resources in science and technology. The proposed workshop is a part of the Scientific Social Responsibility (SSR) of the ANRF scheme in motivating faculty of colleges/institutions to pursue a research career in emerging areas of science and technology.

ABOUT IIITDM KURNOOL

Indian Institute of Information Technology Design and Manufacturing Kurnool (IIITDM Kurnool), is a centrally funded technical institute established in 2015, by the Ministry of Education, Govt. of India. IIITDM Kurnool was accorded the status of an Institute of National Importance. The Hon'ble Prime Minister dedicated the institute to the nation on 20th February 2024. The institute is offering B.Tech. programmes in Computer Science Engineering, Artificial Intelligence and Data Science, Electronics and Communication Engineering (specialization: Design and Manufacturing) and Mechanical Engineering (specialization: Design and Manufacturing), M. Tech. programmes in CSE, AI&DS, VLSI and Embedded Systems, IoT and Drones, Smart manufacturing, Robotics and Automation. The institute is offering Ph.D. programme in emerging research areas such as Advanced Materials, Semiconductors, Quantum Technologies, Manufacturing & Industry 4.0, Hydrogen Energy, Cyber-Physical Systems & Cybersecurity, Artificial Intelligence (AI), Machine Learning (ML), Data Science & Data Analytics, Internet of Things (IoT), Robotics, Drone Technology and 3D Printing etc.,

IMPORTANT DATES

Registration opens: 20/02/2026
Registration closes: 20/03/2026
Selection list by E-mail: 22/03/2026

ELIGIBILITY

- Faculty from UG & PG colleges/institutes in and around the Kurnool region.
- Participants will be selected on a first-come basis.
- Limited to 25 participants.

Registration Link :

<https://forms.gle/bqCcJUGRX94DoyUT8>

NO REGISTRATION FEE.

**THE CERTIFICATES WILL BE
ISSUED TO ALL
PARTICIPANTS.**



23rd – 24th March 2026



**Department of Sciences
IIITDM Kurnool**

DST-ANRF SPONSORED TWO-DAY WORKSHOP

on

**“Hands-on Training on
Synthesis and Characterization
of Nanomaterials for Hydrogen
Energy”
(offline mode)**

23rd – 24th MARCH 2026



Organized by

**Department of Sciences
Indian Institute of Information
Technology Design and
Manufacturing (IIITDM)
Kurnool, Andhra Pradesh
518008, India**



ABOUT THE DEPARTMENT OF SCIENCES

The Department of Sciences at IIITDM Kurnool contains three divisions, namely Mathematics, Physics and English, with 15 faculty. It offers basic /advanced core/elective Mathematics and Physics courses for B. Tech Programmes. Besides, the Department of Sciences also offers Ph.D. Programmes in the frontier areas of Mathematics, Physics, and English. The department has a well-established physics laboratory for B. Tech students and research laboratories for the PhD scholars.



SCOPE OF THE WORKSHOP

This workshop aims to provide comprehensive theoretical knowledge and practical exposure to the synthesis, characterisation, and application of nanomaterials for hydrogen energy technologies. The program is designed to bridge the gap between fundamental research and real-time experimental implementation.

SCIENTIFIC COVERAGE AND TRAINING MODULES

- ❑ Experimental synthesis (Hydrothermal and solvothermal) of advanced nanostructured catalysts for hydrogen production.
- ❑ Fabrication of Carbon Nanofibers (CNFs) via the electrospinning technique (E-SPIN NANOTECH), including precursor preparation, fibre formation, and post-treatment processes.
- ❑ Thin film deposition and coating methods using a Spin Coater (NAVSON).
- ❑ Chemical Vapour Deposition (CVD) and Thermal Vapour Deposition (TVD) techniques for advanced material growth and surface engineering.
- ❑ Optical property analysis using UV–Visible spectroscopy (JASCO V-750) for band gap estimation and light absorption behaviour.
- ❑ Photoluminescence analysis using a Fluorescence Spectrometer.
- ❑ Functional group and bonding analysis using FTIR spectroscopy (JASCO FT/IR-4X).
- ❑ Quantitative hydrogen gas analysis using Gas Chromatography (Agilent 8890 GC System).
- ❑ I-V measurements using a Keithley source meter (KEITHLEY 2450).
- ❑ Electrochemical performance evaluation using an electrochemical workstation (Bio-logic SP 150e).

ORGANISING COMMITTEE

CHIEF GUEST

Hon'ble Prof. B S MURTY
Director

IIITDM Kurnool, A.P., India

CHAIRPERSON

Dr. T. Pandiyarajan

Head of the Department of Sciences
IIITDM Kurnool, A.P., India

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