### **ALL INDIA SEMINAR on**

# ADVANCED MATERIALS: SYNTHESIS, CHARACTERIZATION AND APPLICATIONS



06-07 OCTOBER, 2023

# REGISTRATION



# Registration Fee/-

Students (IE(I) Student& IE(I) Members): Rs. 300/-

Students (Non-IE(I) Members): Rs.400/-

Delegates from Academic / Research Institutions:

Rs.500/-

Delegates from Industries: Rs.750/-

Last date of Registration: 29.09.2023

**Closing Dates for Papers** 

Submission of Full Paper (Oral & Poster): 25.09.2023
Communication of accepted paper: 26.09.2023
VENUE: Manakula Vinayagar Institute of Technology

# **Payments**

Payments are optional through Cheque/ NEFT/ UPI/ G-Pay/ Demand Draft, drawn in favour of "The Institution of Engineers (India), Puducherry State Centre" payable at Puducherry.

#### **Bank Details**

Name of Beneficiary :The Institution of Engineers (India)

**Puducherry State Centre** 

Name of Bank: UCO Bank, Grand bazaar, Puducherry

A/c No : 01300110014608 IFSC Code : UCBA0000130, UPID : ioe@ucobank

**BHIM UPI payment Accepted** 





Transport Facility available from

Puducherry, Villupuram, Cuddalore & Tindivanam

Accommodation will be provided for outstation participants at nearby Hotel Rs. 250/day

# The Institution of Engineers (India)

"A Century of Service to Nation"

**ALL INDIA SEMINAR** 

On

# ADVANCED MATERIALS: SYNTHESIS, CHARACTERIZATION AND APPLICATIONS

Of- 07 OCTOBER, 2023
Organized By
The Institution of Engineers (India)
PUDUCHERRY STATE CENTRE



Under the Aegis of
Metallurgical & Materials Engineering
Division Board, IE(I)
In Association with
Department of Mechanical Engineering

# MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY



Approved by AICTE, New Delhi and Affiliated to Pondicherry University Accredited by NBA & NAAC 'A' Grade Kalitheerthalkuppam, Puducherry-605107 www.mvit.edu.in



Venue: MVIT Auditorium



#### THE INSTITUTION OF ENGINEERS (INDIA):

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform from which to share professional interest. IEI has membership strength of over 0.8 million. Established in 1920, with its headquarters at 8 Gokhale Road, Kolkata - 700020, IEI has served the engineering fraternity for over nine decades. In this period of time it has been inextricably linked with the history of modern-day engineering. In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India to be accorded this honour. Today, its guest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. IEI functions among professional engineers, academicians and research workers. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating from 125 Centres located across the country. The Institution has established R&D Centres at various locations in the country and also provides grant-in-aid to its members to conduct research and development on engineering subjects. IEI has been recognized as Scientific and Industrial Research Organization (SIRO) by the Ministry of Science & Technology, Govt. of India and besides conducting its own research, provides Grant-in-Aid to UG/PG/ PhD students of Engineering Institutes & Universities. IEI holds the International Professional Engineers (IntPE) Register for India International Professional

#### ABOUT IEI PUDUCHERRY STATE CENTRE:

The Institution of Engineers (India), Puducherry State Centre was established on 31st July 2010 It is functioning at Public Works Department of Puducherry. IE (I), PSC Members are spread over in entire union territory of Puducherry Viz: Puducherry, Karaikal, Yanam, Mahe with a total strength of more than 700 Members, as per HQ Communication. There are three Institutional Member, 25 Students chapter started in six Engineering college with more than 1500 students.

IE(I)PSC conducted landmark program like conferment of Honorary Fellowship to Dr. Kiran Bedi, Lt, Governor of Puducherry in 2019, southern region students conclave in 2023 national and international conference in NIT Puducherry. Conducting traffic survey in Puducherry city with police department to provide data for traffic problem, celebrate all statutory days in grand manner.

#### **ABOUT PUDUCHERRY**

Puducherry. the capital of the Union Territory was once the original headquarters of the French in India, is situated on the Coromandel Coast of the Bay of Bengal and is about 135 kms. from Chennai Airport. The main languages spoken here are Tamil, Telugu, Malayalam, English and French. Pondicherry is a peaceful city. It is referred by names such as 'Quintessence of French Culture', 'India's Little France' and 'The French Riviera of the East'. There is French Consulate in Puducherry. The uniqueness of Pondicherry town invariably lies in skillful town planning and Franco Tamil architecture. The town is built on the model of "bastide", a fortified French coastal town of the late 18th Century.

#### Place to Visit

Manakula Vinayagar Temple, Auroville, Rock Beach, Sri Aurobindo Ashram,
Botanical Garden, Basilica of the Sacred Heart of Jesus, Boathouse.

### About Manakula Vinayagar Institute of Technology:

Manakula Vinayagar Institute of Technology (MIT), a unit of Sri Manakula Vinayagar group of Institutions, started in the year 2008 is located inside the Medical college campus, Kalitheerthalkuppam, Puducherry. It provides high quality technical education with a dynamic, experienced and dedicated faculty team state of the art lab facilities, excellent ambience for learning. Outstanding academic record, more than 90% placement in top companies, good discipline, Outcome-based education are the key features of our Institution.

Our Institution is accredited by **NBA**, **New Delhi and NAAC with 'A' grade** is an another milestone in the achievement history of MVIT.

#### **Courses Offered:**

#### **Under Graduate**

B. Tech - Mechanical Engineering/ Electrical and Electronics Engineering / Electronics and Communication Engg / Computer Science and Engineering / Information Technology / Robotics and Automation / Food Technology / (IoT and Cyber security including Block chain Technology) / Artificial Intelligence and Machine Learning

#### **Post Graduate**

M. Tech – Electronics and Communication Engg / Computer Science and Engineering

MBA - Master of Business Administration

#### About Mechanical Engineering Department: (MIT):

Mechanical Engineering Department established in 2012 was accredited by NBA New Delhi in 2018 -2022. Laboratories are equipped with high tech machineries at an investment of 2 crores. Department has Qualified and experienced faculty with sound character, integrity, punctuality, good values and positive attitude. It provides real time Industrial projects. More achievements in Co/Extra Curricular Activities. More than 200 international journals/conferences with high Impact factor by our Mechanical Faculty team. Published 13 patents Granted 5 patents. Industry oriented training by Experts from core industry. Centre of Excellence by AUTODESK. Our students are the winner of Gold medal in NDRF Design contest in 2019 by IEI . URJAVARAN, SCIMIT, MITILENCE are major events hosted at National Level

#### **SPECIAL FEATURES**

•DFMA (Design for Manufacturing & Assembly), Minitab and Cut Viewer software for Students project

 Value Added Course on AUTOCAD, CREO, PDMS (Plant Design Management System), HYPER mesh. REVIT MEP. ANSYS. INVENTER. SOLIDWORKS. CFD

•Workshop / Training program on best industrial practices like 5S, KAIZEN, LEAN MANUFACTURING, TQM, TPM, SUPPLY CHAIN MANAGEMENT, INDUSTRY 4.0, SAFETY AND EIGHT AID.

#### **Objectives of Seminar**

- √To delve into advanced techniques for creating novel materials with tailored properties.
- $\checkmark \text{To gain proficiency in modern tools for analyzing material structures and behaviors.}$
- ✓To discover real-world uses of advanced materials in diverse industries...
- √To cultivate networking opportunities among attendees for interdisciplinary innovation

#### Overview

Advanced materials are a class of substances engineered to possess specific properties that go beyond those of conventional materials. These materials are designed and synthesized to exhibit exceptional characteristics, making them valuable for various technological, scientific, and industrial applications. They often result from innovations in the fields of chemistry, physics, materials science, and engineering.

#### Topics to be covered:

- ✓ Introduction to advanced materials for Sustainable Development
- √Various Categories of advanced materials: Nano-materials, Smart Materials, Composite Materials, Biomaterials, Functional Polymers, Advanced Ceramics and Advanced Alloys
- ✓ Various innovative synthesis techniques: From traditional methods to emerging approaches such as nanotechnology, chemical vapor deposition, solgel, and molecular self-assembly.
- ✓ Various characterization techniques includes electron microscopy, X-ray diffraction, spectroscopy, and scanning probe microscopy.
- ✓ Applications of advanced materials in various emerging fields including flexible electronics, energy harvesting, biomaterials and environmental remediation.

#### **Expected outcome:**

The seminar will provide insights into the latest advancements and potential applications of advanced materials for sustainable development. It will also promote collaborations and partnerships among researchers, scientists, policymakers, and stakeholders to develop innovative solutions for sustainable development.

#### Resource persons:

Sessions will be handled by Experts from IIT, NIT, Pondicherry University and Puducherry Technological University.

#### Who can attend?

The faculty members and students from Engineering colleges, Polytechnics, Universities, Research Institutions and Industries are eligible to participate in this All India Seminar on "ADVANCED MATERIALS: SYNTHESIS. CHARACTERIZATION AND APPLICATION.

#### **Call For Papers**

All interested participants are requested to contribute technical/ research papers and case studies detailing concept, innovation, idea or practical experiences for oral as well a poster presentation. Each paper should begin with a synopsis of about 200 words and preferably within 3000 words excluding figures, tables and references. A brief bio-data (not more than half a page, affixing a photo) of the author(s) should accompany the paper.

#### E-mail ID: ssri.kod.krish@gmail.com

#### **Publication**

Technical Volume of the seminar will be published incorporating all accepted papers including write-ups on the subject for general appreciation and made available to the registered participants.

# **National Advisory Committee:**

Chairman: Er. Shivanand Roy, FIE, President, IEI

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## CONTACT

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