

# WAMSET-2025

WORKSHOP ON ADVANCED MATERIALS & SUSTAINABLE ENERGY TECHNOLOGIES

29 JUL - 02 AUG, 2025

## SCAN FOR VENUE DETAILS



## ATTENTION PLEASE



- Payment should be made only after receiving a confirmation email regarding the selection.
- Details of accommodation will be intimated via participant's registered email.

### BANK DETAILS

Bank Name	State Bank of India
Bank Branch	Karyavattam
Account No.	44082575589
IFSC Code	SBIN0070043

## ORGANIZING COMMITTEE

### CONVENOR

- Prof. S. M. A. Shibli, Director, CREM, UoK

### CO-CONVENORS

- Shri. Renji V. Chacko, Sr. Director, Head Power Electronic Group, CDAC
- Dr. Abhilash Suryan Assoc. Prof., CET Thiruvananthapuram
- Dr. Rakhi R. B. Principal Scientist, CSIR-NIST
- Dr. M. M. Shaijumon Professor, IISER Thiruvananthapuram
- Dr. Mary Gladis J. Professor, IIST Thiruvananthapuram
- Shri. B.V. Subhash Babu Registrar, Energy Management Centre

### MEMBERS

- Dr. Kanakangi S. Nair Asst. Prof., CREM
- Dr. Jineesh Pullala Asst. Prof., CREM
- Dr. Anjana Ratheesh DST-Women Scientist, CREM
- Dr. Sarika S. CM Postdoc. Fellow, CREM
- Dr. Sameera S. Asst. Prof., Dept. of Chemistry

## FOR ANY QUERIES (REGISTRATION/ACCOMODATION) PLEASE CONTACT



- Dr. Kanakangi S. Nair +91 9400400162
- Dr. Jineesh Pullala +91 9633272411
- Dr. Anjana Ratheesh +91 9497277406
- Dr. Sarika S +91 9746221178



crem@keralauniversity.ac.in



ORGANIZED BY

## CENTRE FOR RENEWABLE ENERGY & MATERIALS UNIVERSITY OF KERALA



UNDER THE AEGIS OF  
**NaMPET PHASE III**  
NATIONAL MISSION ON POWER ELECTRONICS

An Initiative of



Ministry of Electronics and  
Information Technology  
Government of India

Nodal Centre



Centre for Development of  
Advanced Computing, (C-DAC),  
Thiruvananthapuram

IN ASSOCIATION WITH





## THE CENTRE FOR RENEWABLE ENERGY & MATERIALS

One of the oldest universities in India, the University of Kerala was established in 1937. In line with its legacy of academic excellence and innovation, it established the Centre for Renewable Energy & Materials (CREM) in 2019 at the Kariavattom Campus, Thiruvananthapuram. The Centre advances research in renewable energy and sustainable materials, aiming for a low-carbon, energy-efficient future through innovation, global collaboration, and ethical leadership. Its mission is to deliver knowledge in renewable energy and sustainable development, promote energy efficiency, nurture ethically responsible professionals, and inspire impactful sustainable decision-making for a greener future. By integrating expertise across Physics, Chemistry, Optoelectronics, Nanoscience & Nanotechnology, and Biotechnology, it drives for cutting-edge research. Recognized as a Research Centre, it aims to set benchmarks in clean energy and material innovation. The Centre also offers postgraduate courses, labs, and internships in renewable energy, and supports postdoctoral research to drive sustainable innovation and collaboration.

## NATIONAL MISSION ON POWER ELECTRONICS TECHNOLOGY

National Mission on Power Electronics Technology (NaMPET) is a national mission program launched by the Ministry of Electronics and Information Technology (MeitY), Govt. of India, with a vision to provide the country with the capability to become a dominant player in Power Electronics Technology. Through this National level R&D Program, Research, Development, Deployment and Commercialization of Power Electronics Technology is envisaged by enhancing the indigenous R&D expertise and infrastructure in the country with active participation from academic institutions and industries. **Centre for Development of Advanced Computing (C-DAC)**, a premier R&D organization in Thiruvananthapuram, under MeitY, is the Nodal Centre coordinating the activities of NaMPET. The ongoing third phase of NaMPET focuses on technology development in e-mobility, smart grids, wide band gap devices, and related awareness initiatives.

## WORKSHOP THEME

**THE WORKSHOP FOCUSES ON BRIDGING MATERIALS RESEARCH AND DEVICE-LEVEL IMPLEMENTATION IN THE ENERGY SECTOR, WITH THEMATIC AREAS INCLUDING:**

- Hydrogen energy technologies
- Batteries & fuel cells
- Renewable energy systems
- Energy harvesting techniques
- Integration with power electronics
- Translational pathways from materials to device-level applications



**ENROLLMENT LIMITED TO  
50 PARTICIPANTS.  
FIRST-COME, FIRST-SERVED.**

## REGISTRATION DETAILS

CATEGORY	AMOUNT (INR)
Ph.D. Scholar/Postdoc./Student	Rs. 1,000/-
Faculty	Rs. 2,000/-
Industry	Rs. 3,000/-

## REGISTER NOW

SCAN THIS QR CODE



OR

FOLLOW THE BELOW LINK

[LINK](#)

## IMPORTANT DATES

Last Date for Registration: **July 18, 2025**

Last Date for Abstract Submission (*Optional*):  
**July 18, 2025**

**NB: Proceed to payment only after receiving intimation**

Last Date for Payment: **July 20, 2025**

## CONFIRMED SPEAKERS



Dr. P. V. Unnikrishnan  
KDISC, Trivandrum



Shri. Renji. V. Chacko  
PEG, NaMPET



Prof. C. S. Gopinath  
IIT Palakkad



Dr. S. Ravichandran  
CSIR-CECRI, Karaikudi



Dr. Shaneeth M.  
VSSC, Trivandrum



Dr. Sreekumar Kurungot  
CSIR-NCL, Pune



Prof. Sebastian C. Peter  
JNCASR, Bengaluru



Prof. M. M. Shaijumon  
IISER, Trivandrum



Prof. Mary Gladis J.  
IIST, Trivandrum



Dr. Rajeev K. Sukumaran  
CSIR-NIIST, Trivandrum



Dr. Rakhi R. B.  
CSIR-NIIST, Trivandrum



Dr. Suraj Soman  
CSIR-NIIST, Trivandrum



Shri. Ramesh Palaniswami  
PEG, CDAC Trivandrum



Dr. Maiyalagan T.  
SRMIST, Chennai



Dr. Abhilash Suryan  
CET, Trivandrum



Dr. Anantharaj Sengen  
IIT Kanpur



Shri. Anoop Surendran  
EMC, Trivandrum



Shri. Yogesh Karnapooshanam  
EMC, Trivandrum

## 📍 CV RAMAN HALL, UNIVERSITY OF KERALA

**08:30-09:30 AM** Registration  
**09:30-09:45 AM** Welcome Speech  
**09:45-10:10 AM** Inauguration & Inaugural Talk  
**10:10-10:30 AM** About NaMPET **Shri. Renji V. Chacko**, Sr. Director, Head PEG, C-DAC  
**10:30-11:00 AM** Tea Break  
**11:00-12:00 PM** Key Note Address 1: **Prof. Sebastian C. Peter**, New Chemistry Unit, JNCASR  
**12:00-01:00 PM** Key Note Address 2: **Dr. Shaneeth M**, Head-Fuel Cells Division, VSSC  
**01:00-02:00 PM** Lunch Break  
**02:00-03:30 PM** **Water Electrolyzers: The Devices to Make Green Hydrogen**  
**Dr. S. Ravichandran**, Sr. Principal Scientist Rtd., CSIR-CECRI, Karaikudi  
**03:30-04:00 PM** Tea Break  
**04:00-05:30 PM** **Why Green Hydrogen is important for India's Ambitions and How to Produce Economically?**  
**Prof. C. S. Gopinath**, Visiting Prof., IIT Palakkad

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## 📍 CSIR-NIIST, THIRUVANANTHAPURAM

**09:30-10:30 AM** **Shaping the Lab to Land Journey of Versatile Nanostructured Indoor Solar Cells**  
**Dr. Suraj Soman**, Sr. Scientist, CSIR-NIIST  
**10:30-11:00 AM** Tea Break  
**11:00-12:00 PM** **2G Ethanol Challenges and Implementation: Is this India's test bed for bio-economy**  
**Dr. Rajeev K. Sukumaran**, Sr. Principal Scientist CSIR-NIIST  
**12:00-01:00 PM** **Supercapacitors: Powering the future beyond batteries**  
**Dr. Rakhi R. B.**, Principal Scientist, CSIR-NIIST  
**01:00-02:00 PM** Lunch Break  
**02:00-05:00 PM** **Visit to Photovoltaic & Solar Cell Fabrication, Prototype for Bioenergy from Waste Materials**

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## 📍 EMC & CET, THIRUVANANTHAPURAM

**09:30-10:15 AM** **Overview of Energy Conservation and Sustainability Initiatives in the State** **Shri. Anoop Surendran**  
Energy Technologist-B, EMC, Govt. of Kerala  
**10:15-11:00 AM** **Gear shift to Sustainability**  
**Shri. Yogesh Karnapooshanam**, Consultant Architect, EMC, Govt. of Kerala  
**11:00-11:30 AM** Tea Break  
**11:30-12:30 PM** **Visit to Renewable Energy Projects, Thiruvananthapuram**  
**12:30-01:30 PM** Lunch Break  

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**02:00-03:15 PM** **Low-cost Electrocatalyst for Green Hydrogen Production for a Sustainable Future**  
**Dr. Maiyalagan T.**, Assoc. Prof., SRMIST, Chennai  
**03:15-03:45 PM** Tea Break  
**03:45-05:00 PM** **Hydrogen Storage Technologies: Challenges & Opportunities**  
**Dr. Abhilash Suryan**, Assoc. Prof., CET, Thiruvananthapuram

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## 📍 JANAKI AMMAL HALL, UoK & IISER- TVM

**09:30-10:30 AM** Invited Talk  
**Dr. P. V. Unnikrishnan**, Member Secretary  
K-DISC, Thiruvananthapuram  
**10:30-11:00 AM** Tea Break  
**11:00-12:00 PM** **PE interface for energy storage system**  
**Shri. Ramesh Palaniswami**, Scientist E, Power Electronics Group, C-DAC  

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**01:00-02:00 PM** Lunch Break  
**02:00-05:00 PM** **Interactive session and visit to Device fabrication and other facilities**  
**Prof. M. M. Shaijumon** and group  
School of Physics, Indian Institute of Science Education & Research-TVM

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## 📍 CV RAMAN HALL, UNIVERSITY OF KERALA

**09:30-10:45 AM** **Hydrogen Energy & CSIR - Connecting Deep Science with Technologies**  
**Dr. Sreekumar Kurungot**, Chief Scientist  
Physical & Materials Chemistry Division, CSIR-NCL, Pune  
**10:45-11:15 AM** Tea Break  
**11:15-12:30 PM** **Catalysts, Cutlery, and Curious Claims: Unconventional Pathways and Uncomfortable Truths in Water Splitting Research**  
**Dr. Anantharaj Sengeni**, Assist. Prof., Dept. of Chemistry, IIT Kanpur.  
**12:30-01:30 PM** Lunch Break  
**01:30-02:15 PM** **Materials for sustainable electrochemical energy storage devices.**  
**Dr. Mary Gladis J.**, Professor, Dept. of Chemistry,  
Indian Institute of Space Science and Technology, Thiruvananthapuram  
**02:15-02:45 PM** Flash Talk Presentations  
**02:45-03:15 PM** Tea Break  
**03:15-05:00 PM** Validatory Session & Vote of Thanks

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## HIGHLIGHTS OF WORKSHOP

- Invited Talks by Experts
- Group Discussions
- Student Flash Talk Presentations
- Exposure to Device Fabrication & Prototype Development
- Collaboration Opportunities
- Hands-on Demonstrations

