



Enable | Enlighten | Enrich

KARPAGAM
ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act, 1956)

Anusandhan National Research Foundation (ANRF) sponsored
**INTERNATIONAL CONFERENCE ON
ADVANCED MATERIALS FOR ENERGY AND
ENVIRONMENT SUSTAINABILITY (ICAME²S-2025)**

on March 6 & 7, 2025

organized by

Centre for Energy and Environment (CEE) & Department of Physics
Karpagam Academy of Higher Education, Coimbatore, Tamilnadu, India

ABOUT THE INSTITUTE

Karpagam Academy of Higher Education (KAHE) is a Premier Deemed-to-be University. Nestled within a serene, green campus, KAHE provides an enriching academic environment that fosters holistic learning and research excellence. The university integrates modern pedagogical approaches, career-centric programs, and a strong faculty base to enhance the learning experience. Beyond technical education, KAHE places a strong emphasis on soft skills, communication, and values, shaping well-rounded professionals ready to excel in a globalized world.

With a vibrant student community exceeding 10,000 and a dedicated workforce of over 750 teaching and non-teaching staff, KAHE continues to push the boundaries of academic innovation. The university is structured into four faculties: Arts, Science, Commerce & Management; Engineering; Architecture, Design & Planning; and Pharmacy. In addition, KAHE has established 13 specialized research centers, covering areas such as Cancer Research, Natural Products, Material Science, Energy & Environment, Biophotonics, Food Nanotechnology, Bioinformatics and Computational Physics. These centers serve as hubs for pioneering research and innovation, promoting interdisciplinary collaboration.

Renowned for its achievements, KAHE has gained global recognition, ranking among the top institutions in Times Higher Education (THE) Subject Rankings 2025. With over 5,000 research publications, significant funded projects, and an extensive patent portfolio, KAHE remains committed to advancing knowledge, research, and global engagement, cementing its position as a leading institution in higher education.

ABOUT THE CENTRE

The Centre for Energy and Environment is dedicated to advancing research, education, and outreach in the fields of energy and environmental studies. CEE aims to find sustainable solutions to global energy inadequacy and environmental remediation, as global energy systems will experience major changes in the coming decades. These challenges call for scientific knowledge, innovative technology development, policy measures, and action at the local and global levels. Currently, members of CEE are mainly working on metal oxides, zeolite-based metal-organic frameworks (MOFs), 2-D layered materials for energy storage, photocatalysis, water-splitting, hydrogen evolution and solid polymer electrolytes for battery applications.

ABOUT THE DEPARTMENT OF PHYSICS

The Department of Physics Functioning since 2003. The department focuses on research areas such as batteries, crystal growth, DSSC, magnetic materials, nanomaterials, solar energy, and thin films, caters to wide range of opportunities to engage in world-class physics and multi-disciplinary research. The contribution of motivated and well-qualified teaching faculty generated many successful students, who are now working in various public and private sectors.

ABOUT THE CONFERENCE

The ICAME²S-2025 conference is being jointly organized by the Centre for Energy and Environment and Department of Physics, Karpagam Academy of Higher Education, Coimbatore, Tamil Nadu, India. The conference is a part of the Diamond Jubilee Celebrations of KAHE. The ICAME²S-2025 conference emphasizes the interdisciplinary nature of modern energy research, bridging multiple scientific and engineering disciplines to address pressing global energy challenges. Scientists and engineers working in the areas of renewable and sustainable energy will converge to discuss how fundamental principles belonging to various fields, such as thermodynamics, quantum mechanics and electromagnetism, which are driving innovations in clean energy technologies. This includes innovations in electrochemical cells, fuel cell, cutting-edge energy storage systems, and many more, including non-conventional energy technologies. The development of high-efficiency solar panels and microgrids rely on the interplay of quantum physics and Materials science. Energy storage advancements, such as batteries and supercapacitors, require a deep understanding of electrochemical and thermodynamic principles. The conference will provide a platform for scientists and engineers from mechanical, electrical, electronics, environmental science, and device physics to develop a common language to address the problem and find a solution for efficient and resilient energy grids and power systems. By fostering collaboration across these diverse fields, the conference aims to propel the development of sustainable technologies that harness the laws of physics to create greener, more sustainable energy solutions, underscoring the essential role of interdisciplinary approaches in shaping the clean energy future.

CALL FOR ABSTRACT

The conference will focus on the following areas:

- Energy Conversion: Solar Cells, Thermoelectric, Photovoltaics
- Energy Storage: Fuel Cells, Batteries and Supercapacitors
- Advanced Nanomaterials: Photo & Electro-catalyst
- Green Energy: Hydrogen energy, Water splitting, Pollution control
- Biomaterials & Green synthesis
- Energy from Biomass, Waste to Energy
- Sensor & Smart Materials
- Functional and New materials and
- Computational Aspects in any of the above areas

CHIEF PATRON

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Vice- Chancellor

PATRON

Prof. S. Ravi
Registrar

Prof. V. Parthasarathy
Dean, Research & Development and International Relations

Prof. N. V. Balaji
Dean, Faculty of Arts, Science, Commerce and Management

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Dr. B. Janarthanan, Professor & Head- Department of Physics

CO-CONVENERS

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Dr. A. Shameem, Assistant Professor, S&H- Physics

ORGANIZING SECRETARIES

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Dr. T. Kavinkumar, Assistant Professor, Department of Physics
Dr. Debabrata Barik, Professor, Department of Mechanical Engineering
Dr. K. Manikandan, Assistant Professor, Department of Physics
Dr. Jhelai Sahadevan, Post-Doctoral Fellow/ Physics, Department of Physics
Ms. S. Swathi, Assistant Professor, Department of Physics

ORGANIZING CO-ORDINATORS

Dr. E. Sivasenthil, Associate Professor, Department of Physics
Dr. A. Nagamani Prabu, Assistant Professor, Department of Physics
Dr. T. Bavani, Assistant Professor, Department of Chemistry
Dr. Ravi Kumar Trivedi, Assistant Professor, Department of Physics
Dr. L. Bruno Chandrasekar, Assistant Professor, Department of Physics
Dr. R. Ranjith Kumar, Assistant Professor, Department of Physics
Ms. S. Sanjana, Research Scholar, Department of Physics
Ms. K. Padmavathi, Research Scholar, Department of Physics
Mr. M. Pannerselvam, Research Scholar, Department of Physics
Ms. M. Shandhiya, Research Scholar, Department of Physics
Ms. R. Safornia Jhonson, Research Scholar, Department of Physics
Mr. V.P. Nitesh, Research Scholar, Department of Physics
Mr. M. DineshKumar, Research Scholar, Department of Physics
Ms. D. Infant Jency, Research Scholar, Department of Physics

ADVISORY COMMITTEE

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Prof. B. Karthikeyan, National Institute of Technology, Tiruchirappalli.
Prof. Muthu Senthil Pandian, SSN College of Engineering, Chennai.
Prof. D. Kesavan, IIT, Palakad.

INVITED/KEYNOTE SPEAKERS



Dr. Kafil M. Rzeeb

University College Cork
Ireland



Prof. Jih-Hsing Chang

Chaoyang University of Technology
Taiwan



Dr. N. Ponpandian

Bharathiar University
Coimbatore



Dr. A. Pandikumar

CSIR- Central Electrochemical
Research Institute, Karaikudi



Dr. B. Sridhar

CSIR- Indian Institute of Chemical
Technology, Hyderabad



Dr. M. Sankaralingam

National Institute of Technology, Calicut,
Kerala



Dr. R. Easwaramoorthi

Powder Metallurgy and New Materials
(ARCI), Hyderabad



Dr. S. Athimoolam

Anna University Regional Campus -
Tirunelveli



Dr. S. Senthilkumar

CSIR- National aerospace laboratories,
Bangalore



Dr. J. Mathavan

Thiruvalluvar University
Vellore

IMPORTANT DATES

Abstract submission closes: **1 March 2025**

Acceptance notification: **3 March 2025**

Registration deadline: **5 March 2025**

Abstract should be prepared in MS-word, Times New Roman, 12 font size with single spacing. Abstracts will be accepted for presentation based on the recommendation of the panel of referees and published in the proceedings with ISBN number. The best posters and oral presentations will be recognized with awards. These awards aim to acknowledge the exceptional work and research presented at the conference.

JOURNAL PUBLICATIONS

Full-length papers from all the presenters are invited and the selected papers will be published in the following Scopus indexed journals/ Book series after peer review under the special issue category.

1. Material Science and Engineering: B
2. Chemical Physics Impact
3. Journal of Material Science: Materials in Electronics
4. Springer Proceedings in Physics

Note: Article Processing Charges (APC) will be applicable as per journal policy.

REGISTRATION FEES

All the delegates must register to participate in the International Conference on Advanced Materials for Energy and Environment Sustainability (ICAME²S-2025) through the online link: <https://forms.gle/oQH0TYrumigQ5YpW6>

Category	Amount
Students	750 /-
Scholars/Post Doc.	1000 /-
Faculty	1250 /-
Industry person	1750 /-
Foreigners	\$ 50 /-

FOR REGISTRATION



ADDRESS FOR COMMUNICATION

The Convenor

ICAME²S-2025

Karpagam Academy of Higher Education, Coimbatore-641021

Email: icamees@kahedu.edu.in

Dr. S. Esakki Muthu : **+91 99524 10315**

Ms. S. Swathi : **+91 99447 02393**

Dr. A. Shameem : **+91 97872 30786**

Ms. S. Sanjana : **+91 80985 24832**

Dr. T. Kavinkumar : **+91 95780 39557**