Interdisciplinary Centre for
ENERGY RESEARCH

भारतीय विज्ञान संस्थान

ICER

"Pioneering Frontiers, Empowering Energies."

Interdisciplinary Centre for Energy Research (ICER) is one of the youngest departments at the Indian Institute of Science (IISc), although conceived in 2012 was established as a department in January 2023. As part of the post-centenary vision to take up socially relevant research in line with national level missions of the Government of India in the field of energy, ICER directly benefits the people of the nation and the world. Due to the highly interdisciplinary nature of research in energy, ICER is also unique in its constitution with respect to both faculty and student fraternity, attracting expertise from diverse domains of science and engineering.

MISSION

ICER at IISc is a global nexus for collaboration. Our mission transcends boundaries, uniting researchers, industries and policy makers. Through interdisciplinary initiatives, knowledge exchange , and strategic partnerships, we're catalysing innovation, fostering mutual learning, and driving collective action towards a sustainable , interconnected future for all. Empowering individuals, revitalizing communities, and forging a resilient path towards a brighter tomorrow



MATERIALS AND CHEMICALS SYSTEMS



MECHANICAL SYSTEMS



POWER AND ELECTRICAL

ICER encompasses of three verticals such as a. Material and Chemical Systems b. Mechanical Systems c. Power and Electricals. Under these foci, ICER faculty is actively conducting fundamental and translational research in the following frontier areas: Concentrated Solar Power (CSP), Next-Generation Solar PhotoVoltaic (PV), Thermo-chemical of biomass, hydrogen production and storage, chemical design or synthesis of materials for energy, High performance Li-ion and post Li-ion batteries and super capacitors, electrolysers and electrocatalyst, High Storage Density Battery, Sustainable Technologies, smart grids, Combustion Science and Technology is being carried out.

ICER hosts the facilities created under various prestigious mission funded by Government of India. The first super critical CO2 cycle in India is hosted by ICER. Additionally , it houses state-of- the- art research facilities for conducting research and development in the field of electrochemical energy storage and conversion. As part of the ICER's core agenda, faculties actively coordinate and participate in collaborative projects funded by agencies of Government of India, Karnataka, public / private sector industries. In addition to the energy research activities in the main IISc campus, ICER has also undertaken development and deployment of mega solar energy facilities at the new IISc Challakere campus.

Prospective Faculty:

ICER at IISc invites applications for faculty positions at all levels , particularly at the assistant professor level. Faculty candidates with background in sciences (chemistry and physics) and engineering (chemical, mechanical, electrical) whose research interest align with main areas of research at ICER. Interested candidates are requested to visit the IISc bengaluru website https://www.iisc.ac.in for all the details.

Prospective Student:

ICER at IISc is interested in students with specializations in chemistry, physics, electrical engineering, chemical engineering for MTECH (research) and PhD program. For more information on qualifications and mode of entry, please visit the website : https://www.iisc.ac.in/admission .

The Chair

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