INDIAN ACADEMY OF SCIENCES
Bengaluru

37th MID-YEAR MEETING

SPECIAL LECTURE



Prof. Pradip Dutta

IISc, Bengaluru

Professor Pradip Dutta is affiliated with the Interdisciplinary Centre for Energy Research at the Indian Institute of Science, Bengaluru. His research focuses on thermal energy storage, advanced cooling technologies, and phase-change and adsorption-based energy systems.

Professor Dutta earned his bachelor's degree in mechanical engineering from IIT Kharagpur, his master's degree from IIT Madras, and his PhD in Mechanical Engineering from Columbia University, New York. He is a Fellow of ASME, ASTFE, AUTSE, and all four National Academies of Science and Engineering in India – IASc, INSA, NASI, and INAE.

He has received several prestigious honors, including the Distinguished Alumnus Awards from both IIT Kharagpur and IIT Madras, the J.C. Bose National Fellowship, and the Outstanding Teacher Award from the Indian National Academy of Engineering. Prof. Dutta also served as the President of the Indian Society for Heat and Mass Transfer.

3 July 2026 (Friday), 9:30–10:10 AM

@ Faculty Hall
IISc, Bengaluru

Digital Transformation and Environmental Sustainability

Digitalisation continues to move at warp speed, transforming lives and livelihoods. At the same time, rapid digitalisation is exacerbating environmental and climate challenges. This talk highlights the direct environmental impacts of our increased reliance on digital tools – from raw material depletion, water and energy use, air quality degradation to pollution and waste generation. These impacts are accentuated by emerging technologies such as the Internet of Things (IoT), Blockchain, and Artificial Intelligence (AI), as well as digital services ranging from emailing to video streaming.

At the heart of the expanding digital economy lie data centers, which store and process vast volumes of data for consumers, businesses, and the public sector. Data centers are characterised by huge computing capacity and cooling requirements that consume large amounts of both energy and water. This talk also highlights the projected growth in energy demand from data centers and the corresponding need to scale-up decarbonised electricity grid capacity.

Chairperson
Prof. Meena Mahajan
IMSc, Chennai

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All are Welcome