



Centenary Lecture Series-4

Prof. Mamdud Hossain Discusses Co-Electrolysis for Syngas Production at IIT (ISM) Dhanbad's Centenary Lecture Series – 4

As part of the Centenary Lecture Series commemorating 100 years of academic excellence, the Department of Mechanical Engineering, IIT (ISM) Dhanbad, was honored to host **Prof. Mamdud Hossain**, PhD, SFHEA, FIMechE, CEng, from the **School of Engineering, Robert Gordon University, Aberdeen, UK**.

Prof. Hossain delivered an engaging lecture on “**Co-electrolysis of CO₂ and H₂ for Syngas Production**” at the Department of Mechanical Engineering's Seminar Hall. His presentation explored the cutting-edge technology of co-electrolysis, focusing on the electrochemical conversion of carbon dioxide and hydrogen into syngas—a crucial step towards sustainable fuel production and carbon-neutral technologies. Prof. Hossain's work offers significant promise in addressing energy challenges and advancing clean energy solutions by integrating renewable hydrogen with CO₂ conversion technologies.

The event was graced by **Prof. S. Chattopadhyaya, Head of the Department (Mechanical Engineering)** and **Prof. Sandipan Kumar Das** along with senior faculty members. The lecture saw an active engagement from students, researchers, and faculty, fostering meaningful discussions on sustainable energy solutions and the future of carbon management technologies.

The event was coordinated by Prof. Abhijeet Sethi, Coordinator, Centenary Lecture Series, Mechanical Engineering Department.

The Centenary Lecture Series continues to bring global thought leaders to IIT (ISM) Dhanbad, igniting intellectual exchange and reinforcing the institute's commitment to innovation and academic excellence as it enters its second century.



About Prof. Mamdud Hossain

Dr. Mamdud Hossain is a Professor of Future Energy Technology at the School of Engineering of Robert Gordon University. He is leading the Energy Research Group, which is made of 10 academic staff and 35 PhD students within the school. His research interests include applying computational modelling techniques to solve some of the most challenging and interesting problems related to hydrogen fuel cell, tidal, wave and wind energy, and multi-phase flows for oil and gas industry. His research has been funded through EPSRC, NetZero Technology Centre, Oil and Gas Innovation Centre, Northern Research Partnership, Innovate UK, the Carnegie Trust, Aramco Oversea, CNOOC and many industries. He is a Science Board member of EPSRC Hydrogen and Fuel Cell Supergen Hub, a member of EPSRC Reviewer College, an academic Adviser to the Commonwealth Scholarship Commission. Prof Hossain is a Chartered Engineer and a Fellow of the Institution of Mechanical Engineers. He is also a Senior Fellow of the Higher Education Academy.