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on
**EMERGING TECHNOLOGIES: MICRO TO
NANO (ETMN-2024)**



Jointly Organized by
Department of Electrical Engineering, Faculty of Engineering &
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Jaipur

Prof. Hiranmay Saha

[\(sahahiran@gmail.com\)](mailto:sahahiran@gmail.com)

Present Designation: Professor

School of Advanced Materials, IEST, Shibpur



Prof. Hiranmay Saha, an esteemed Honorary Professor at the School of Advanced Materials, Green Energy, and Sensor Systems (SAMGESS) at IEST, Shibpur, has a storied career in the fields of solar photovoltaics and sensor systems. Born in 1946, Prof. Saha graduated with honors in Physics from Presidency College, Kolkata, and went on to earn his Master's in Technology from Calcutta University, followed by a Ph.D. in solar cell research under Prof. Sudhanshu Sekhar Deb.

Throughout his career, Prof. Saha has led pioneering research in photovoltaic and sensor technology. As early as 1974, he achieved a 7% efficiency in CdS-Cu₂S solar cells, an accomplishment that marked one of India's early advances in solar cell fabrication. His tenure at Jadavpur University from 1988 saw the establishment of a leading IC Design and Fabrication Center, where he advanced silicon-based optoelectronic and MEMS sensors for gas detection, pressure sensing, and methane gas monitoring. Later, in 2010, he joined BESU (now IEST Shibpur) to lead the newly established Centre of Excellence for Green Energy and Sensor Systems (CEGESS). Under his leadership, the center established cutting-edge facilities for silicon solar cell fabrication and smart microgrid technologies. His team has successfully fabricated high-efficiency solar cells, including Al-BSF, PERC, TOPCon, and HJT cells, reaching efficiencies up to 20%.

With over 300 publications and the supervision of 33 Ph.D. scholars, Prof. Saha is a respected figure in solar energy and sensor technology. He is the founder of Agni Green Power Limited and has served in various capacities on advisory committees for India's DST and MNRE. His contributions extend to popular science education and community engagement, holding positions like President of Gandhi Seva Sangha and Chairman of the Solar Energy Society of India, Eastern Regional Chapter.