



Prof. A. K. Barua (1936-2021)

Prof. A. K. Barua, one of the pioneers of the solar photovoltaic research, has passed away on 30.05.2021 after a brief period of illness. He was 84 years of age and survived by wife and a large number of students.

Prof. Barua's illustrious research career is spread over five decades. He started his scientific career at the Indian Association for the Cultivation of Science (IACS) in the nineteen sixties as a scientist in theoretical and experimental physics working on the study of transport properties and scattering in the system of gas molecules. But from the mid-seventies his attention had shifted to the study of thin solid films. He became very much interested in the study of hydrogenated amorphous silicon thin film which was becoming important for its application in the low-cost solar photovoltaic power generation. In the eighties, with missionary zeal, he built up a highly equipped research laboratory at IACS for research on solar photovoltaics. In recognition of his brilliant work, he was made Director of IACS in 1982 which he gave up in 1989 in order to pursue his amorphous silicon solar cell research in IACS. The lab, Energy Research Unit (ERU), produced a large number of research scientists and gained reputation not only in India but also among the International scientific community working in this area of solar PV.

Prof. Barua belonged to one of the rare group of scientists who directly transferred the research output from the research lab to industry. He was the main force behind the first production amorphous silicon solar modules by an Indian industry.

After retirement from IACS he joined the Indian Institute of Engineering Science and Technology (IEST) in 2010 as Honorary Emeritus Professor and was one of the architects of the creation of Centre of Excellence for Green Energy and Sensor Systems (CEGESS) at IEST which has been recognised by the Govt. of India as a Solar PV Hub. He was instrumental in setting up the world class facilities for fabrication and characterisation of a-Si and thin silicon solar cells in the IEST solar PV Hub at CEGESS and served proactively till the end of 2019.

Prof. Barua was elected as a fellow of the Indian Academy of Sciences, held the chair of the Research and Development committee of the Ministry of New and Renewable Energy under the Jawaharlal Nehru National Solar Mission on solar photovoltaics, was a member of the Task Force on Solar Research Initiatives set up by the Department of Science and Technology and also a member of the Asia Pacific Academy of Materials. He was Chairman of the Sixth International Photovoltaic Science and Engineering Conference held in New Delhi in 1992 and again of the Eighteenth International Photovoltaic Science and Engineering Conference held in Kolkata in 2009.

In 2003 he was honoured with the civilian award of “Padma Shri” of Govt of India for his contribution to science. He was conferred DSc (hc) by BESU in 2009.

We, the faculties and students of CEGESS and members of the DST Solar PV Hub at IEST express our deepest condolences to the family of Prof. Barua.