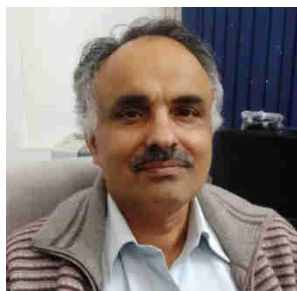


# OBITUARY



## **PROFESSOR ASHOK KUMAR**

**1964 – 2020**

Professor Ashok Kumar, who was a well-known academician and faculty member of the Department of Physics at Tezpur University in Assam, India, passed away due to heart failure in Tezpur University campus on 6<sup>th</sup> April 2020. Known to his colleagues since 1999, he was born 56 years earlier, on 1<sup>st</sup> February 1964, in the family home of his late father Shri Sukhveer Singh in Vivek Vihar, which is located in a rural area of Shamli village of Muzaffarnagar district in Uttar Pradesh (U.P.), India.

Although he lost both his parents at a very tender age, and had to struggle through life, Professor Kumar never allowed adversaries to obstruct his goals in life. He was not only the topper, and hence the gold medallist, in both matriculation and higher secondary examinations from U.P. board of education, but later on he was also the gold medallist in his B.Sc examination under Agra University in UP. He then attended Meerut University in UP from where he got his Master of Physics degree with specialization in electronics. After this he joined the M.Tech programme in Material Science of IIT Kanpur and obtained his M.Tech degree in 1988. He then joined the Ph.D programme of IIT Kanpur and with the guidance of Professor K.Sahi, he finally got his doctorate degree in 1994 in the area of fuel cell electrolytes.

After a few years as Lecturer in Birla Institute of Technology, Pilani in Rajasthan, he joined as Reader in the Department of Physics, Tezpur University in 1999. In 2008 he became Professor and finally became senior Professor in 2019. Along with his academic duties, he never hesitated to offer his support parallelly in various other administrative capacities. He was the Head of the Department for three years, Dean of the school of science for a period, in-charge of the post of controller of examinations for some time, Chairman of the Tezpur University Entrance Examination Cell for a year, and lately from April 2018, he was holding the three year period post of Head of the Sophisticated Analysis & Instrumentation Centre (SAIC) in Tezpur University.

Being an extremely brilliant, humble and well-mannered teacher, Professor Kumar was immensely liked by all his students. He was very meticulous and sincere in his teaching and left no stone unturned when it came to explaining ideas to his students. On the research front, he was an exemplary figure. His hard-working nature and tenacity were something to admire and learn from. Eighteen students already got PhD degree with his guidance and about six students were continuing their work with him. In his own research lab, he knew how to inspire with his original scientific temper and keep his research students engaged in work. He was also instrumental in setting up some of the other key experimental infrastructure of the Department of Physics, especially related to material science and nanoscience research and teaching.

Professor Kumar's work on fuel cell research, Ionics, development of nano-materials, conducting polymers, ion irradiation of nano-materials, etc., is well known in the scientific circle. His monumental collection of research papers in highly prestigious peer reviewed national and international journals, which is more than 160 in number, stands testimony to his efforts. Nobody can ever forget his contribution towards development efforts of Polymer redox supercapacitors, Phosphoric acid and

molten carbonate electrolytes based  $H_2$ - $O_2$  fuel cells, lithium based gel polymer electrolytes, conducting polymer based nanocomposites for actuators, polymer-silicate nanocomposite electrolytes for lithium ion rechargeable batteries, biologically functionalized conducting polymer nanostructures for biosensing applications, recent research in graphene based nanocomposites, etc. His collaborations with Inter University Accelerator Centre (IUAC) in New Delhi, Queen's University in Belfast, UK, Centre for Mathematical Modelling & Simulation (CMMACS) in Bangalore, yielded benefits for the entire research community and also for Tezpur University in particular. His versatility was such that he could also guide research in earth sciences too, parallelly with his research on material science. A number of his PhD students used to work with Global Positioning System (GPS) based units for studying kinematics and crustal deformation of north-eastern India for correlation with seismic activity.

For his confident authority over his research work and his caring supportive nature, Professor Kumar was always welcomed by the leading academic institutions and scientific bodies of not only Assam, but the north eastern region as a whole, other parts of the country and even abroad, to chair sessions and deliver talks. He was a life member of Society for Advancement of Electrochemical Science & Technology, Electron Microscope Society of India, Indian Physics Association, Assam Science Society, Physics Academy of the North East, Materials Research Society of India and Indian Society for Solid State Ionics. He was also the Vice president of Indian Society for Solid State Ionics. He was the principal investigator of 12 completed projects, funded by government bodies like DST, DAE, UGC, IUAC, etc., and was running another 3 projects till his untimely demise. He was invited to deliver talks in USA, Europe, Australia, UK, etc. to present his research work and form collaborations. The honour bestowed upon him in this manner was indeed a matter of prestige for Tezpur University and our country as a whole. Recently, Professor Kumar was admitted by the Council to the Royal Society of Chemistry, as Fellow and was entitled to use FRSC after his name. He was also selected for the Leadership for Academicians Programme (LEAP) which included a visit to Monash University, Melbourne, Australia.

A very quiet, modest, humble, honest and sincere personality of science has left us with a lot to remember. He leaves behind his wife, Mrs Jyotsna Verma, and his son Arnav. Professor Ashok Kumar was a friend, mentor, colleague, and inspiration to us and many others. He was above all, a brilliant physicist, whom probably nobody can easily replace. Surely, his genius and affection will be remembered forever by all those who knew him.

Dated: 11<sup>th</sup> April, 2020

Dr.Gazi Ameen Ahmed,  
Department of Physics,  
Tezpur University,  
Tezpur-784028, Assam, India.