



Jayanta Kumar Ghosh  
23rd May 1937 – 30th September 2017

## OBITUARY

Professor Jayanta Kumar Ghosh, emeritus professor of Indian Statistical Institute and Purdue University, passed away on September 30, 2017. He was a former Director of Indian Statistical Institute and a former President of International Statistical Institute. He was one of the past editors of *Sankhyā*.

Born on May 23, 1937, Ghosh studied in Kolkata. After finishing school, Ghosh joined the Statistics honours program at Presidency College, Kolkata and later obtained a master's degree in Statistics from University of Calcutta. He received his Ph.D. degree from the same university, based on a thesis written under the supervision of H.K. Nandi. His doctoral thesis was on Sequential Analysis.

In a career spanning nearly six decades, Professor Ghosh made fundamental contributions to several areas of statistics, viz., sequential analysis, foundations of statistics, asymptotic theory and Bayesian inference. His works on sequential probability ratio test of composite hypotheses, sufficiency and invariance, Bahadur representation of quantiles, which later came to be known as Bahadur-Ghosh-Kiefer representation, Edgeworth expansion, second order efficiency, Bartlett correction, comparison of the likelihood ratio, Wald's and Rao's statistics, Bahadur-Cochran deficiency, Neyman-Scott problem, matching and other objective priors, limits of posterior distributions, Bayesian nonparametrics, model selection and Bayesian hypothesis testing have led to significant advancement of modern statistics.

Professor Ghosh supervised nearly thirty-five students at Indian Statistical Institute and Purdue University. He collaborated extensively with statisticians of different countries. Besides statisticians, he also collaborated considerably with scientists from other disciplines. One of his prime interests was problems from Geology. He was also seriously interested in applications of statistics in public health problems and ecology.

During his stint as the director of Indian Statistical Institute, Professor Ghosh strove towards creating a culture of cooperation. He not only provided academic leadership in Statistics at Indian Statistical Institute but also took initiatives in the growth of Mathematics, Computer Science and Economics at the institute. He took active interest in the research of his colleagues, often offering significant suggestions and solutions. It is remarkable that even after his retirement from Indian Statistical Institute,

he continued to remain involved in different activities of the institute, always keeping in mind the goal of contributing to its well-being. In this post-retirement period, he visited the institute for considerable length of time every year and continued his collaboration with scientists of the institute. Also, during the last two decades of his life, he provided active leadership for the growth of Bayesian Statistics in India.

Professor Ghosh commanded respect for his formidable scholarship. He had considerable interest in many subjects, especially those coming under the broad umbrella of humanities. He had deep interest in literature and science in general. He developed a habit of reading ever since his childhood and later became an avid reader. Towards the end of his life, he became interested in cognitive science and thought about man and society very deeply.

Professor Ghosh won many accolades during his life. One of them was the Shanti Swarup Bhatnagar Prize for Science and Technology, a very prestigious award given annually by the Council of Scientific and Industrial Research of India. He was awarded Padma Shri, one of the highest civilian awards, by the Government of India. Indian Statistical Institute conferred the D.Sc. (honoris causa) on him.

Professor Ghosh was an extremely kind person. Many will remember him for his exemplary kindness. He helped individuals and charities in many ways. He took active interest in the activities of a social organization working for downtrodden children and women.

Professor Ghosh's wife Ira Ghosh passed away a few days before his death. He is survived by his son Indraneel Ghosh of Tucson, USA and daughter Joyee Ghosh of Iowa City, USA.