



ডঃ কুলেষ্ঠ চক্র কর, ডি. এস-সি

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# Prof. Kuleshchandra Kar : A Centennial Remembrance

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Kuleshchandra Kar was born in October 1, 1899 in Manbhum, Bihar. His father Umacharan Kar was a district judge. His ancestral home was at Sahapur in Burdwan district where his grandfather Harachandra Kar was an affluent landlord. He studied in the Hare School and passed the Matriculation in 1916 and won a gold medal for standing first in Mathematics. He won a merit scholarship and after passing the Intermediate in science in 1918 decided to study Physics. This was the beginning of his life long association with the subject. He obtained a first class Honours degree of the Calcutta University in 1920 and two years later stood first in the first class in the M.Sc. examination in Physics of the Calcutta University.

His first publication was made even before he passed the M.Sc. examination; this paper in the Physical Review (Vol. 20, p. 148, 1922) was entitled "The action of the bow in stringed instruments" and was inspired by the work of his teacher Professor C. V. Raman, the Palit Professor of Physics of the University of Calcutta, who was then working on Indian musical instruments prior to his celebrated study of the scattering of light which was to bring the first Indian Nobel prize in Physics.

In 1922 he joined the Scottish Church College as a demonstrator and in early 1924 became a lecturer in the Serampore College. He immediately made his mark as a brilliant teacher. He continued his research on the statistical theory of spontaneous fluctuations of energy and published research papers in the Physical review and the Physikalische Zeitschrift. This research in Statistical mechanics brought him the D. Sc. degree of the Calcutta University in 1925.

He joined Presidency College as a lecturer in 1927 and thus began his lifelong association with this august institution. His lucid exposition of the physical principles and his mastery over mathematical tools endeared him to generations of students. He continued his research activities and continued to publish even after retirement. He built up an active

research group in theoretical physics and many research students obtained their doctorate degrees under his able guidance. He had a very active research interest and made publications on the Dirac equation soon after Dirac's celebrated work on relativistic quantum mechanics. He made publications in nuclear physics, the special theory of relativity and also the general theory of relativity right up to his demise in 1975.

He was transferred to Rajshahi College in 1945, but returned to Presidency College after the partition of Bengal in 1947. He became the Professor and Head of the Department of Physics and retired after an eventful career in 1955. The state government made him a Professor Emeritus in recognition of his contributions, a rare honour which had been bestowed earlier on Sir Jagadish Chandra Bose. He continued to teach in the M.Sc. classes well after his retirement and generations of students of Calcutta University remember him with affection and reverence.

Over a research career spanning half a century, Professor Kar made over a hundred publications, some in Bengali. He authored four text books. He trained a galaxy of young men and women in the methodology of theoretical physics, many of whom achieved distinction in later life. Among them were M. Ghosh, K. K. Mukherjee, A. Ganguli, R. C. Mazumdar, D. Basu, R. R. Roy, S. Sen Gupta, M. L. Chaudhury, S. Sanatani, P. P. Chattarjee, Mrs A. Basu, S. P. Banerjee, R. K. Bhattacharya, N. K. Datta, B. N. Paria, Mrs Chinmoyee Dutta, A. K. Bhattacharya and others.

He founded the Institute of Theoretical Physics two years before his retirement and donated his house, his life's savings and his ancestral property to it. He also founded the Indian Journal of Theoretical Physics which soon won international recognition. A recent survey by the UNESCO has ranked this journal as one of the 15 (out of about 2000 publications made from India) as world class.

In his personal life, Prof. Kar was humble and shy. He shunned publicity; hence he has remained unknown outside the academic world. His versatility

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in diverse branches of physics is surprising. He did not believe that the pursuit of Physics was a monopoly of the West; he had started his own journal and ensured international recognition for it. He married Sulata Mitra, a staunch nationalist in 1926. She was imprisoned by the British Government for her views. They had no children; he showered paternal affection on his research students. His wife predeceased him

in 1965 and the last decade of his life was a lonely one.

He was a true sage in the Indian sense. The end of an eventful life came on 22 April, 1975. He had devoted an entire lifetime to understand the mysteries of the physical world. On the eve of his birth centenary, we remember him with love and affection. ■