

Manoj Kumar Pal (1932–2016)*

Prof. Manoj Kumar Pal, Internationally recognized Nuclear Theorist, passed away at his Kolkata Residence on 3 March 2016. He had his school education in a village school in Nadia district – now in Kustia district of Bangladesh from where he passed Matriculation examination of Calcutta University (CU) in 1947. Then he moved to Calcutta where he had his university education under Calcutta University. He passed B Sc (Hons) (1951), M Sc (1953) studying at Presidency college and Science college respectively. He excelled in academics and was always a front ranker. Soon after he joined Saha Institute of Nuclear Physics (SINP) and did his Post M Sc (1953–54 batch) and got his Ph D in 1959 working in theoretical nuclear physics. He joined the faculty of Saha Institute of Nuclear Physics in 1960 and rose to the position of full Professor in 1969 and Senior Professor in 1981. He became the Director of this institute in 1983 and continued in this position till his retirement in 1992, there upon he served as Emeritus Scientist of CSIR, Government of India till 1997. He held visiting Scientist/Professor positions in many reputed institutes and universities abroad including Princeton, MIT, Oxford, Manchester, ANU (Canberra) and KFA (Juelich), etc.

His field of specialization was Theoretical Nuclear Physics. He has published more than 60 research papers. He contributed extensively to the microscopic description of Theoretical Nuclear Structure Physics. His works have been extensively referred to and find a prominent place in various chapters of several books and monographs. Based on his research, he wrote an advanced textbook entitled *Theory of Nuclear Structure* which is widely used in universities and research institutes in India and abroad. He was a fellow of the Indian National Science Academy, Delhi and fellow of the Indian Academy of Sciences, Bengaluru. He was a recipient of M. N. Saha Gold Medal from the Asiatic Society in Cal-

cutta. He was chosen as the Co-Director of the International Workshops/Schools in Nuclear Physics at ICTP, Trieste, Italy for 16 years during 1969–1985 which marked a high point in the recognition of Indian Nuclear Physics in international sphere.

He was an excellent guide and a great mentor. He supervised seven Ph D scholars at SINP leading to their doctoral degree from Calcutta University. During his Ph D period and later as a faculty of SINP, he was a very regular and popular



teacher for Post M Sc students in SINP, Calcutta. He was an outstanding teacher held in great reverence and love by his students who eagerly looked forward to attend to his lectures. In spite of strict rigour, his lectures, presentations were simple, clear, lucid, meticulously organized and easy to grasp. He had a unique way in imparting feeling and clarity on the subject. The present generation of nuclear structure theorists in India can be regarded to be off springs of the Nuclear Theory Group of SINP, Calcutta.

This account on Pal will be incomplete and inadequate unless we recall the early period of Nuclear Physics research in our country and the pioneering role played by him in it. In 1950s, Nuclear Physics was in its infancy and was being pursued as the challenging core area of research internationally. This challenge was thrust upon Manoj K. Banerjee by M. N. Saha who invited him to be a lecturer in the newly created SINP in 1951 soon after he passed his M Sc from Calcutta Uni-

versity. M. K. Pal almost contemporary of M. K. Banerjee, being two years junior to him can be considered co-pilot, joined the same and became a leading partner in this movement. They learned Nuclear Physics by self effort and taught in M Sc and Post M Sc classes and did Ph D on their own. With this, Nuclear Physics in India grew indigenously and took roots, unlike elsewhere in our country. This school founded by them prospered and attained world class in time. This movement was indeed unique.

During post retirement period, he devoted to a critical study and teaching of the Theory of Relativity. He published two books, one on *Special Theory of Relativity* and other on *General Theory of Relativity* before passing away. His plan to write a volume on Cosmology remained unfulfilled. He was a multi-dimensional erudite scholar in History, Culture, Religion and Philosophy. He wrote a historical novel of about 700 pages entitled *Forever Free* dealing with the period of history ranging from Pharaoh's Egypt of 12th Century BC to the nuclear Holocaust of Hiroshima in 1945. His book *Old Wisdom and New Horizon* on Science, Religion and Philosophy published by the Centre for Studies and Civilization, Government of India is a glorious testimony of his multifaceted genius. He was a highly spiritual person and was devoted to Ramakrishna Mission together with his illustrious wife Prof. (Mrs) Dipti Pal. Besides contributing regularly to the *Bulletin of Ramakrishna Mission Institute of Culture*, he was writing critical essays and articles about India's Education and Science policies in the journal *Science and Culture*.

He will be greatly missed by the entire Indian Nuclear Physics Community.

We will always remember him with respect and admiration.

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