Rama N. Singh (1933–2007)

Rama N. Singh, who passed away on 23 April 2007 at Varanasi, was born on 4 January 1933 at Dharwa, Ghazipur. He did his secondary education from UP College, Varanasi, and higher studies (B Sc, M Sc and Ph D) from Banaras Hindu University (BHU). He worked on purely experimental investigations, preparing a radio transmitter and carried out experiments to measure the velocity and direction of ionospheric drift for his Ph D research, under the able guidance of late S. R. Khastgir. He was appointed as Lecturer in 1958 in the Department of Physics, Faculty of Science, BHU, and in 1966, joined as Reader in the School of Applied Sciences at the Institute of Technology, BHU. In 1971, he became Professor and superannuated in January 1993 as Director, Institute of Technology, BHU. During his illustrious teaching and research career, Singh served in various capacities at the university, such as Incharge of the Applied Sciences, Head of the Applied Physics Department, Dean of the Faculty of Engineering and Technology, and finally Director, Institute of Technology, BHU. Singh was regarded as an outstanding ambassador of academic excellence in the university environment; he had visited several premier institutions around the world as Visiting Professor/Scientist (he served as an Assistant Professor in the Department of Electrical Engineering, Cornell University, Ithaca, New York in 1961, and Institute of Geophysics, University of Alaska, USA in 1962; Visiting Professor, University of California at Los Angeles (UCLA), California in 1985–86; Fellow of the Max-Planck Society at MPAE, Katlenburg-Lindau, Germany in 1989–90), guided 19 Ph Ds and many postdocs, published over 200 research papers, wrote a university-level textbook *Electromagnetic Waves and Fields* (Tata McGraw Hill, 1991), as well as edited several symposia proceedings. Organized and delivered invited talks/presented papers in several national and international seminars/symposia/workshops in his broad field of specialization, i.e. 'Space sciences'. Singh also brought out a 'Special Issue on Inner Planets' in *Current Science* (1994, **66**). Starting with his prestigious PL-480 project in the 1970s, Singh successfully carried out several ISRO, IMAP, DST, UGC and CSIR-sponsored research projects.

Singh shifted interests after his Ph D to theoretical research work on modelling related with the earth's magnetosphere formed by solar–wind interaction. His research interest in planetary sciences continued with special emphasis on the study of Mars and other planets. He published

papers on all the planets of the Solar System. Realizing the global impact of space research, becoming highly dependent on rockets and satellite launching, Singh focused his investigations on lower ionospheric, tropospheric, stratospheric and ground-based observations and theoretical researches. His main research interests included ionospheric physics, magnetospheric physics, Space physics, plasma physics, solid state electronics, remote sensing and exploration. While working at UCLA, Singh analysed Pioneer–Venus data together with C. T. Russel and found evidence for lightning on Venus, which was later confirmed from other satellite measurements. Singh also established a research group in the Physics Department at BHU and did pioneer studies related to the measurements of low-latitude whistlers in Banaras.

Singh was associated with many International organizations: Leader of the National Delegation to SCOSTEP General Assembly at COSPAR, Boulder, Colorado, USA in June 1976; Convener, Energy Coupling, International Conference on Sun Weather Physics, Ohio State University, Columbus, USA in July 1978; Member COSPAR, Working Group-II, Paris, France in 1978–81, 1982–86; SCOSTEP Delegation, Innsbruck, Austria in June 1978; URSI Delegation, Helsinki, Finland in August 1978; Panel on Plasma Teaching, CITP, Trieste, Italy in 1981; Received several recognitions, including Fulbright Award in 1962; Guest of Soviet Academy of Science in 1971, and CONACYT FEDERAL Award, Mexico in 1995–96. He was also a member of IEEE, USA, American Geophysical Union and Indian Physics Association. He was the Editor of *Proceedings of the Indian Academy of Sciences* (*Earth and Planetary Sciences*) during 1986–90. Recently, Purvanchal University had conferred on him the D Sc *Honoris Causa*.

After his superannuation in 1993, Singh remained active until his demise. As an Emeritus Scientist, CSIR, New Delhi from 1994 to 1997, and AICTE-Emeritus from 1999 to 2002, he did some original work in planetary sciences, and published them extensively. He was also the Founder Director, UNS Institute of Engineering and Technology, V.B.S. Purvanchal University, Jaunpur during 2000–01.

With Singh's demise, we have lost an eminent Space scientist. He is survived by his wife, two sons and three daughters.

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