

OBITUARY

Jagat Narain Kapur

Professor Jagat Narain Kapur passed away on September 4, 2002 in Delhi, leaving his family and friends in great grief. He was born in Delhi on October 6, 1923 though it was officially recorded as September 17, 1923. By the time he was born, Delhi became a centre of great political activities. The *Carkhā* and *Taklies* of the Gandhi movement was activating men, women, children and the young minds. Besides strong nationalistic and political influences in his childhood, he had developed a soft corner for Sadhus, since his ancestral house in Delhi had a guest room for visiting Sadhus and he had an opportunity to study them closely.



Jagat Narain Kapur
(1923-2002)

Professor Kapur had his education in Jain A V Middle School (upto class VIII) and D.A.V. School (upto class X, CBSC) Delhi. He had studied Persian, Urdu, Sanskrit and English in schools. He was a brilliant student from the beginning, and stood 8th in the Board exam, first in I.Sc., and obtained B.A. (Hons.) and M.A. degrees in Mathematics with first class from the Hindu College breaking all previous records of the college. He served Hindu College (1944-56) as senior lecturer of Mathematics and had also obtained M.Sc. Post Diploma in Statistics, organised by ICAR during this period. He became reader in the Institute of Post-graduate studies, Delhi University (1956-61); Professor, Indian Institute of Technology, Kanpur (1961-86); Vice Chancellor, Meerut University (1971-74); Visiting Professor, Mathematics Department, IIT, Delhi and Delhi University (1986-88); Senior Scientist, Indian National Science Academy (1987-89); Adjunct Professor, Waterloo University, Canada (1988-90); Hon. Professor, School of Computer and Systems Science, JNU (1988-2002) and B R Ambedkar University, Agra & Netaji Subhash Institute of Technology, New Delhi (2000-2002). He had also been Visiting Professor of many Universities in USA, Canada, UK, West Germany, Italy, Australia, Netherland and other countries.

Professor Kapur was a great teacher. He had taught wide variety of topics in mathematics to B.Sc. (Hons.) and M.Sc. classes both at the Delhi University and IIT (Kanpur). He had organised a large number of Summer Institutes for teachers in Mathematics, before UGC and USAID had introduced the Summer Institutes Programme and was popularly known as the father of the Summer Institutes in Mathematics in our country. He had also organised some conferences of Mathematics on International level.

Professor Kapur was also an outstanding researcher. His main field of interest were in the areas of Internal Ballistics of Guns and Rockets, Fluid Dynamics, Mathematical Models and their Applications, Entropy Optimization Principles, Operation Research, Measures of Information and their Application, Geometry of Probability Spaces etc. Number of research papers run to 612 in professional journals. He developed keen interest in the areas of Mathematics Education, Ethics and Culture during his tenure of Vice Chancellorship and later years. His general articles run to about 1010. He has also compiled/written as many as 190 text books. His passion for rejuvenating school mathematics is remarkable. He might have rightly realised that the development of mathematics at higher level is impossible without school mathematics being interesting and attractive.

Professor Kapur had been the recipient of many awards among which the National Academy Gold Medal for Best Research (1980), National Lecturership, UGC (1982-83), Distinguished Service Award of Mathematical Association of Canada (1988), G P Chatterjee Award of the Science Congress Association (1988), P L Bhatnagar Lecturship of Indian Mathematical Society (1989), Felicitation by Yogi Maharaj Trust Gandhigram (1992) are well known.

Professor Kapur was elected to the Fellowship of the well-known organisations : Indian Academy of Sciences (1965), National Academy of Science (1965), Institute of Mathematics and its Applications, UK (1966), and Indian National Science Academy (1969). He was the Founder President of the Vigyan Parishad of India, Indian Society of Information Theory, Indian Society of Industrial and Applied Mathematics, Mathematical Sciences Trust Society, CV Kapur Education Foundation, Rotary Club of Meerut East. He was also the Founder of Mathematical Association of India

and Founder Editor of its publications. He was also the Convener of the Mathematics Education Forum of ISCA.

In the fag end of his life he developed considerable interest in the field of History of Mathematics, and used to encourage younger scholars to do more in the field. He often used to say, some scholars like Prof. B B Datta and Avadesh Narayan Singh had done useful work in the field of History of Indian Mathematics, P C Sengupta and Kripa Shankar Shukla in the field of History of Indian Astronomy, but efforts might be made also to assess the contributions of other cultural areas in the context of Indian contributions. He was Chairman of the Modern Period Committee of National Commission for History of Science and even took up a project to make an assessment of the development of Mathematical Sciences in India during the 20th century and encouraged Sri S M Hegde to work on the project. However, a few articles/books, written/compiled by him in the field, will be of interest.

1. 'A Brief History of Hindu Mathematics and Astronomy' in, *Fascinating World of Mathematics*, Jawaharlal Nehru University and Mathematical Sciences, Vol. VII, pp 68-78, Mathematical Sciences Trust Society (MSTS), Delhi.
2. *Āryabhata* (with D S Hooda), New Years International Publication, 160 pages, New Delhi, 1996.
3. *Problems of Ancient Indian Mathematics*, 36 pages, MSTS, Delhi.
4. *Eminent Indian Mathematicians* (ed.), 5 Vols., Vol. I, 49 pages (eight bibliographies); Vol. II, 40 pages (eight bibliographies); Vol. III, 66 pages (ten bibliographies); Vol. IV, 66 pages (twelve bibliographies); Vol. V, 72 pages (twelve bibliographies), MSTS, Delhi.
5. *Magic Squares*, 156 pages, MSTS, Delhi.
6. *The Truth About Swamiji's Vedic Mathematics*, 145 pages, MSTS, Delhi.
7. *Men and the Mathematicians*, 170 pages, MSTS, Delhi (This includes full list of Professor Kapur's publications, besides other details).
8. *A Life with Mathematics and Education-An Autobiography of Professor J.N. Kapur*, 2 parts, MSTS, Delhi, 1997, 2001.
9. *Research Contributions of J N Kapur* (abstracts of 600 papers), 191 pages, MSTS, Delhi.
10. *Some Great Mathematicians of the Nineteenth Century* by Ganesh Prasad, Dynamic Publications India Ltd., Meerut 2002 (Compiled and reprinted. It gives details from the lives and contributions of greatest mathematicians like Gauss, Cauchy, Abel, Jacobi, Weierstrass, Reimann, Cayley, Hermite, Kronecker, Briocshi, Cremona, Darboux,

Cantor, Mittag-Leffler, Klein, and Poincare. An analysis of the contents of all these papers and books and the motivations of the mathematicians for writing these have also been made).

11. *Eminent Indian Mathematicians of the 20th Century*, 5 volumes, MSTS, Delhi (1989-1994).
12. "The Importance of the Concept of Zero in Modern Mathematics and Science", in *The Concept of Śūnya*, ed. A K Bag and S R Sarma, pp. 184-191, New Delhi, 2003.

On the personal side, Professor J N Kapur was simple, helpful and endeared himself to everybody he met. Always smiling, but he sometimes burst into laughter. He was a man of dynamic personality, a great speaker and prolific writer. He had a great knack to encourage other people and appreciate their efforts. He had strong views on many things in life but he was basically a humanist and promoter of scientific values. He was an eminent educationist, a true salesman of mathematics and mathematics education of all dimensions. He has been a role model for many of us. His sudden demise creates a void which is difficult to fill.

A K Bag