

OBITUARY



ARVIND BHATNAGAR (1936-2006)

Prof. Arvind Bhatnagar passed away on the evening of May 18, 2006 at Udaipur following severe cardiac and respiratory complications. He had returned back to his city, Udaipur, just one day before, on May 17, 2006, after spending two months in Delhi where he was recuperating from cardiac problems. Although he was not keeping good health over the last few years, he had retained his enthusiasm and dynamism as ever to be actively engaged in both research and social activities. As the Arvind we all knew, he had pushed behind his urgent personal commitments and rather chose to avail an opportunity to observe the total solar eclipse of March 29, 2006 from Turkey. While making the arrangements for his trip, he stretched beyond what his body could take and the cardiac problems decimated his plans.

Prof. Bhatnagar was known internationally for his significant contributions to Solar Astronomy. He was the founder-director of the Udaipur Solar Observatory. He also took immense interest in popularization of astronomy and helped establishing several planetaria across India.

Arvind Bhatnagar was born in Bewar, Rajasthan on 19th November 1936. He had his early education in Agra, Almora and Nainital. After completing his M.Sc. in Physics, he joined the UP State Observatory, Nainital, in 1958 and worked there until 1961. He obtained his Ph.D. degree in Solar Physics in 1964 from Agra University while working at the Kodaikanal Observatory under the guidance of Prof. M K. Vainu Bappu. He then worked as a Meteorologist in the India Meteorological Department during 1965-67. He was awarded the Carnegie Fellowship to work at Mount Wilson and Palomar Observatories, USA, during 1968-70. Afterwards he worked as a Resident Astronomer at the Big Bear Solar Observatory of the California Institute of Technology, Pasadena, California, USA till 1972.

In 1972, Prof. Bhatnagar returned to India to establish a unique island solar

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observatory in the middle of Lake Fatehsagar in Udaipur under the aegis of the Vedhshala, Ahmedabad. This lake site was carefully selected by him after taking into consideration the facts that Rajasthan received the maximum sunshine and the large body of lake water helps to stabilize the air turbulence arising due to heating of ground by the solar radiation. Due to his efforts, the solar observatory was taken over by the Department of Space in December 1981 for its speedy growth, and was affiliated to the Physical Research Laboratory, Ahmedabad. The Udaipur Solar Observatory has become internationally renowned as one of the major centers for high-resolution solar observations. It is also one of the six observatories located around the world participating in the Global Oscillations Network Group (GONG) for the study of solar interior.

In December 1996, Prof. Bhatnagar retired as the director of the Udaipur Solar Observatory, and continued to work on topics related to the solar interior as an Emeritus Scientist. He worked on helioseismology using the GONG data and studied the p-mode frequency shift with the phase of solar cycle. He co-authored with Bill Livingston a fascinating book on solar physics entitled *Fundamentals of Solar Astronomy*, and had recently embarked on another book entitled *Manual for Solar Astronomy* for beginners funded by DST. He wrote more than 80 papers on a wide variety of problems and edited two books.

Prof. Bhatnagar was elected a Fellow of the prestigious National Academy of Sciences, India (Allahabad). He was a founder member of the Astronomical Society of India and a member of the International Astronomical Union. Prof. Bhatnagar was the founder Director of the Nehru Planetarium, Mumbai from 1976 to 1978, and advisor to many planetaria in the country, namely Jawahar Planetarium, Allahabad, Nehru Planetarium, Delhi, and Sardar Patel Planetarium, Baroda. He encouraged a number of young students to take up active interest in pursuing scientific activities and also guided several students during their research career.

In 1996, Prof. Bhatnagar started a novel project called SUCHE (Swatch, Healthy, Urban, Clean and Hygienic Environment) Abhiyan in several localities of Udaipur under ASTHA Sansthan for solid waste management through public participation. He was also appointed as one of the High Court Commissioners to monitor the directives of the High Court in connection with protection of the lake system of Udaipur. In his passing we have lost a person with unique characteristics and capabilities and it will be difficult to fill up this void.

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