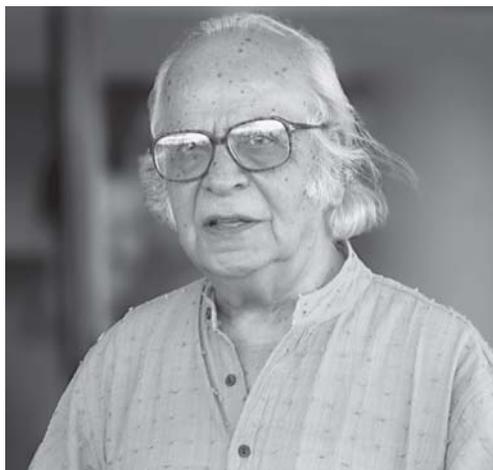


## PROFESSOR YASH PAL

(26.11.1926 - 24.07.2017)



Professor Yash Pal was born at Jhang (now in Pakistan) on 26 November, 1926. The Nobel Prize Winner Physicist Abdus Salam was also born in the same place on 29 January, 1926. Professor Yash Pal was known as a Cosmic ray physicist, institution builder, educationist and an outstanding science communicator. He spent his early days in Quetta (Balochistan). A massive earthquake took place in the year 1935 when his paternal home was entirely demolished. In fact, people rescued Yash Pal and his younger brother from under mud bricks. Then all the family members moved to the house of his maternal grandfather. Just before partition of India, he was stuck in Delhi and not allowed to go back to Pakistan. Ultimately, Yash Pal and his friends from Pakistan stayed at Delhi. Receiving immense help from Professor D. S. Kothari, Yash completed his M.Sc. degree from Punjab University in 1949. By this time, he got an offer from Tata Institute of Fundamental Research and joined there. First he completed his thesis for M.Sc. degree and then joined in cosmic ray studies. Though the beginning was not exciting, the situation afterwards became quite different as Bernard Peters, a well known cosmic ray researcher, a research student of Robert Oppenheimer, joined TIFR on invitation by H. J. Bhabha. Peters spent about eight years in TIFR. Yash Pal had his close associate Devendra Lal and few other close associates who shaped up the cosmic ray research in India during 1950s. Their balloons expedition with newer innovations at almost every point has become an everlasting memory in the history of cosmic ray research in India.

Taking leave from TIFR, Yash Pal went to Massachusetts Institute of Technology (MIT) for doing his Ph.D. degree under Bruno Rossi. The cosmic ray research laboratory at MIT was one of the best in the world. The lab owned a very large cloud chamber and the first high-energy accelerator in the world, cosmotron. Yash Pal studied the interactions of pions and protons into the cloud chamber. Through his research, the validity of 'particle mixture theory' was confirmed. He was also able to measure the masses of two neutral K-particles present in the mixture. Yash Pal got his Ph.D. degree in 1958 and came back to TIFR. He started his research in a full swing. A good number of research students worked with him and were suitably placed in different positions in and out of the country. He travelled to Niels Bohr Institute in Copenhagen as a visiting professor under the invitation of Bernard Peters. Professor Yash Pal visited a number of countries and presented their works in different cosmic ray and high-energy physics conferences.

Probably the most glittering period of Yash Pal began after he took up the directorship of Space Applications Centre at Ahmedabad in 1972. He started his work almost from scratch. However, he had the capacity to face any challenge and inspire the younger associates. Ultimately, the Satellite Instructional Television Experiment (SITE) went well. The people of ISRO helped him expectedly. SITE was primarily meant for mass education. They adopted programmes for rural people after taking exhaustive survey from all kinds of people. Yash Pal

himself visited a large number of villages throughout India to select the suitable sites. We know, at present, that the above one is a successful story of India. We must mention the science programmes specially made for the kids. A good number of cultural personalities e.g. M. S. Sathyu, Habib Tanvir, Dina Pathak and others helped him a lot. Over and above, we should not forget to note the programme 'Turning Point' presented by Yash Pal himself with an intimate assistance from Girish Karnad, Naseeruddin Shah and others.

Yash Pal served successfully in different highly responsible positions. He became the Secretary General, 2<sup>nd</sup> United Nations Conference on Peaceful Uses of Outer Space (UNISPACE – II) during 1981-82. He also acted as Chief Consultant, Planning Commission (1983-84), Government of India. He became the Secretary, DST and later Chairman, University Grants Commission (1986-91). Yash Pal was awarded Padma Bhusan in 1976, NCSTC National Award for Best Effort in Science Popularization (2000) and UNESCO Kalinga Puraskar for the same (2009).

In 1992, the Ministry of Human Resource Development set up a National Advisory Committee under his Chairmanship to find out ways to reduce the academic burden on school students. His Committee reported, 'a lot is taught but little is learnt or understood'. We can never forget the statement: 'So far as physical load of the school bag is concerned, the situation has become worse over the past few years. However, the weight of the school bag represents only one dimension of the problem; the more pernicious burden is that of non comprehension.' He was dead against what was going on in the name of privatization in higher education. In fact, he filed a case in the Supreme

Court against a number of private universities in Chhattisgarh who had no regulatory approvals and infrastructure at all. He won the case and 112 universities had to be closed down.

Prof. Yash Pal was associated with ISNA as a member of the Advisory Committee of ISNA. He also participated in the Platinum Jubilee celebration of ISNA and released the book "Emerging Science and Culture : Connecting People" edited by Prof. S. C. Roy published by ISNA in 2009 on the occasion of Platinum Jubilee of ISNA.

I can remember his association when he was elected Chairman, National Organizing Committee, Bharat Jana Gyan Vigyan Jatha (1992). There were lot of programmes on science during a long period throughout India. A good number of popular science activists joined that time together and tried their best to inculcate scientific temper all along the country. Professor Yash Pal was the captain of that national team. He was a man of 'science in society'. He delivered his presidential address in Indian Science Congress in Cochin (1990) under the name 'Science in Society', where he stated '..... means of production, goods and services, ways of looking after our land, increase of efficiency, modes of communication and transport to stay in touch with each other - all these are important. But, if we make science as a part of our culture they would all come, much more naturally, more creatively and more in tune with our living, not as an assault from outside'. He will be ever – remembered by all of us. □

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