

PROFESSOR YASH PAL

Born	26 th November 1926
Education	After completing post-graduation in Physics at Punjab University in 1949, joined the Tata Institute of Fundamental Research. In 1958 obtained Ph.D. degree in Physics from the Massachusetts Institute of Technology.
Professional * Positions	<p>Visiting Professor at the Neils Bohr Institute Copenhagen, University of Maryland, California Institute of Technology, Danish Space Research Institute.</p> <p>Chairman, University Grants Commission (1986-91)</p> <p>Secretary, Department of Science & Technology (1984-86)</p> <p>Chief Consultant, Planning Commission (1983-84)</p> <p>Secretary General, of the 2nd United National Conference on Peaceful Uses of Outer Space (1981-82)</p> <p>Distinguished Scientist, Indian Space Research Organisation (1980-83)</p> <p>Director, Space Applications Centre, Ahmedabad (1973-81)</p> <p>Professor, Tata Institute of Fundamental Research (upto 1983)</p> <p>National Research Professor (1995 -)</p> <p>Jawaharlal Nehru Chair in Technology, Punjab University (1997 - 1999)</p> <p>The first Chair of the Modern School, New Delhi</p> <p>National Mahatma Gandhi Fellow (2004 -)</p>
Previous Positions	<p>Is/has been Chairman/Member of various National and International Committees, Boards and Organisations, and on the editorial boards of scientific journals.</p> <p>Chairman, National Institute of Design (1984-91).</p> <p>Member, UN Advisory Committee on Science and Technology for Development (UNACSTD).</p> <p>Member Scientific Council, International Centre for Theoretical Physics (ICTP).</p>

Chairman, National Council of Science Museums.

Chairman, Sky Art Conference, Linz, Austria in 1982.

President, Indian Physics Association.

General President, Indian Science Congress (1989-90)

Vice President, International Union of Pure and Applied Physics (IUPAP)

Member, United Nations University (UNU) Working Group for World Institute for Space and Society

Member UNESCO Study group on Future of Universities

Chairman of the National Advisory Committee report "Learning without Burden"

Chairman, Governing Board, INFLIBNET

Member, Governing Council, Giri Institute of Development Studies (Lucknow)

Chairman, Project Board, Hanle Telescope Project of IIA

Chairman, Project Board UVIT project of ASTROSAT

Some Current Responsibilities

President, NCSTC Network

Member, Council of Centre for Rural And Industrial Development (Chandigarh)

Trustee: Indira Gandhi Memorial Trust (till 1997)
Indira Gandhi National Centre for the Arts

Member, Governing Council, Indian Institute of Astrophysics (IIA)

Member: Organising Committee of Indira Gandhi Conferences on World Affairs

Founding Member: Steering Committee for the Project on the "History of Indian Philosophy Science and Culture

Founding member, Centre for Study of Civilisations.

Advisory Committee for selecting Marconi Fellows, Marconi Foundation (upto 2004)

Area of Work

Fields of Cosmic Rays; High Energy Physics, Astrophysics; Science Education; Space Technology; Communication and Development; Education.

Honours and Awards

In 1976 Awarded Padma Bhushan by the Government of India for contribution to Science and Space Technology

In 1980 the Marconi International Fellowship Award “to recognise wise and humane leadership in applying modern communications technology to meet the needs of isolated rural villagers in India” (Highest International Award in Communication).

In 1989 received 5th Annual Award of the Association of Space Explorers (the first award was given to Jacques Yves Cousteau) in recognition of best effort. in bringing the benefits of space research home to earth.

In 1989 Shiromani Award for achievements in the Chosen fields of activity.

In 1984 Dayanand Saraswati Centenary Gold Medal for Excellence in Science.

G.P. Chatterjee Memorial Award (1987) of Indian Science Congress.

Zaheer Memorial Lecture Award (1991) at the Indian Science Congress.

First Lord Perry Award for Excellence in Distance Education (1992)

Aurther C. Clarke Award for Communication and Space Technology (1994).

The Asiatic Society’s Sir William Jones Memorial Gold Medal (1996).

Indian National Science Academy Award for Science Popularisation

NCSTC Award for Best Effort in Science Popularisation (2,000)

Asutosh Mukerji Award of the Indian Science Congress

CEC (Centre for Educational Communication) Award for Educational Communication

Fellowship/	Fellow:
Membership etc.	Indian National Science Academy. Indian Academy of Sciences; National Academy of Science; Indian National Academy of Engineering; International Academy of Astronautics; National Fellow of the National Institute of Education
Foreign Member	American Academy of Arts and Sciences.
Honorary Fellow	Inter University Centre for Astronomy and Astrophysics; Indian Society of Astronautics; Computer Society of India; Institute of Electrical and Telecommunication Engineers (IETE).
Honourary Degrees	Has been awarded honorary degrees of Doctor of Science by a number of Universities.
Publications	Has made significant contributions over the years in the areas of cosmic-rays, high energy physics, astrophysics, science education, communication and development and has published a large number of papers in national and international journals. Some of his scientific work let to: Discovery of negative K-meson The first observations of Pair-production of elementary particles;

Elucidation of properties of K-mesons & Hyperons;

The first measurement of $K_1^0 - K_2^0$ mass difference;

Understanding the role of cosmic & cosmic-ray neutrinos;

Prediction of rise in the p-p cross-section;

Recognition of importance of excited states of particles in multiple meson production at high energies;

First development of the leaky-box model of cosmic ray propagation in the galaxy, and

Cosmic-ray phenomenology including fluxes of various particles in the atmosphere and below ground.

Has done extensive work in the theory and practice of Communication for Development, and has proposed new ways of using modern technology, including space technology, in ways appropriate for developing countries. Has written and spoken extensively on issues of Science and Society, specially on the need for science to form an integral part of human living, not only in terms of providing tools and techniques for doing things but also to influence human values, ethics and consciousness.

Media Activities

Chairman: Advisory Committee of TV series

“BHARAT KI CHAAP”, “TUR-RUM-TU”, “RACE TO SAVE THE PLANET”.

Solar Eclipse program; Comet programmes ; Venus Transit.

Advisor, including script correction and approval, answers to questions, for the Science Magazine T.V. Series (over 150 episodes) “TURNING POINT”.

Answering questions on Internet and Chat sessions on Internet for two years.

Weekly column in several newspapers answering questions from children and general public under titles “Understanding the Universe with Prof. Yash Pal” and “Your Discovered Questions”, This Universe”.

This engagement has made him declare, “we should learn from children what to teach them”.

Large number of other programmes on T.V. and Radio.

Institution Building

Responsible for Conceptualisation and/or Establishment or Development of the following Institutions including Inter University Centres (IUCs):

Space Applications Centre, Ahmedabad;

{SITE experiment was conducted and development of satellite payloads for Communication, Remote Sensing and Meteorology was initiated during his tenure of eight years as the founding Director of the Centre}.

Nuclear Science Centre, New Delhi,

Inter University Centre for Astronomy and Astrophysics, (IUCAA), Pune,

I.U.C. DAEF (Indore, Calcutta, Mumbai).

Centre for Educational Communication (CEC) (Countrywide Classroom),
including initiation of Video Classrooms Lectures Programme.

Information and Library Network (INFLIBNET), Ahmedabad

I.U.C. for Social Science and Humanities, (at Indian Institute of Advanced
Studies, Shimla).

General For several years, more since 1995, Professor Yash Pal has been interacting with various social, scientific and educational institutions, including schools, colleges, universities and IIT's. More often than not it is at the invitation of students and field activists. He claims to learn a lot from children. Some people have termed him as the Carl Sagan of India. Others have dubbed him as a Gandhian Technologist. He often suggests modern ways of achieving inclusive societies that would moderate and then eliminate the rising tide of ethnic tensions and terrorism. He keeps on stressing that India has to define modernity and development in its own terms.

Professor Pal was responsible for conceptualizing the "Science is Everywhere" series of television programs for rural children during the SITE experiment (1975 – 76).

He was the Chairman of the Committee that produced the report "Learning Without Burden" in 1993.

Lately (2004 – 05) he has been involved in formal school education as Chairman of the Steering Committee for the National Curriculum Framework – 2005. This effort done through NCERT and a large number of academics in the country might bring a significant change in the way India's children would be educated.

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