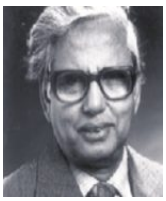
RECIPIENTS OF
LIFE TIME ACHIEVEMENT AWARDS

2017

Mr. Azim Premji

Mr. Azim Premji, Chairman, Wipro Limited was responsible for guiding Wipro through four decades of diversification and growth to finally emerge as one of the global leaders in the software industry. He is informally known as the Czar of the Indian IT Industry. In 2001, he founded Azim Premji Foundation, a non-profit organisation, with a vision to significantly contribute to achieving quality universal education that facilitates a just, equitable, humane and sustainable society.



Prof. TK Ghose

Prof. TK Ghose, formerly Founder Chair of Department of Biochemical Engineering and Biotechnology, IIT Delhi is a pioneer academician in creating awareness of the discipline of Biochemical Engineering and Biotechnology in the Country. His contributions enabled Govt. of India to create the DBT under HRD Ministry for further progress of this field.

2016

Dr. Prem Shanker Goel

Dr. PS Goel, born on April 20, 1947 is presently Honorary Distinguished Professor, ISRO Hqrs. and Raja Ramanna Chair Visiting Professor, National Institute of Advanced Studies, Bangalore . He was Formerly Secretary, Ministry of Earth Sciences and Chairman, Earth Commission; and Director, ISRO Satellite Centre, Bangalore and Formerly Chairman, Recruitment and Assessment Centre, DRDO, Ministry of Defence, Govt. of India Delhi. Dr Goel has contributed immensely to the advancement of satellite technology in India. His array of achievements extended much beyond satellite technology into space science -the Chandrayaan -1 and Astrosat Missions, Launch Vehicles- ASLV & PSLV, Light Combat Aircraft; Earth sciences; ocean development; fuel cells; disaster warning; meteorology and National security. He received several prestigious awards and honours including the Padma Shri Award by President of India.

Dr. V.K. Aatre

Dr Vasudev Kalkunte Aatre was born on Aug 28, 1939. He held various key positions including Chief Controller of R&D, DRDO. He was also the Scientific Adviser to the Raksha Mantri, Director General of Defence Research & Development Organization, Director General of Aeronautical Development Agency and Secretary Department of Defence R&D. His outstanding contributions towards design have resulted in India becoming self- sufficient in Sonars for all the three dimensions of the Navy for air-borne, ship-borne and submarine-borne applications. He is often called the Father of MEMS (Micro-electro-mechanical-systems) and Smart Systems in India. He received several prestigious awards and honours including the Padma Bhushan in 2000 and Padma Vibhushan in 2016 by President of India.

2015

Prof. DV Singh *

Late Prof. DV Singh obtained his basic degree of Science from Allahabad University, degrees of Mechanical Engineering and Civil Engineering from University of Roorkee and his post-graduation degrees, M.S. and Ph.D., from University of Wisconsin. He joined the faculty of the University of Roorkee in 1958 and served the University as Professor and Dean until 1990. He was Director, Central Road Research Institute, 1990-1996; Vice Chairman, AICTE, 1996-2000; Vice Chancellor, University of Roorkee and Director IIT Roorkee, 2000-2002. He has published 160 research papers, guided 19 Ph.D. Theses and several M.E. Theses. His domain areas of specialization are Dynamics of Mechanical Systems, Tribology, Stress Analysis, Fluid Mechanics, and Road Transportation Engineering. Among his distinguished research, his pioneering work on dynamic stability of two-wheeled vehicles and his analytical work on hydrodynamic and hydrostatic bearings and fluid seals, tyre mechanics, design of micro hydro- machines and modelling of welding arc and its stability stand out. He was the Lead Person of the enormously successful Fly Ash Mission of DST, which has made great impact on utilization, safe disposal and management of Fly Ash in the country.

Prof. BL Deekshatulu

Prof. BL Deekshatulu has made outstanding contributions to research, teaching and R&D in the areas of Automatic Control, Remote Sensing and Image processing and is a role model for young engineers. The foundations for these pioneering activities were laid while he was at Indian Institute of Science (1970-76), when these subjects were in their infancy in India. After his sabbatical at IBM TJ Watson Centre (1971-1972), he returned to India dedicating himself to propagate education and R&D in Remote Sensing recognizing the need of this cutting edge technology for rapid national development. He designed and fabricated, for the first time in India, Grey scale and Colour drum Scanners for Computer Picture processing. The present Department of Computer Science & automation at Indian institute of Science has its origin to the efforts of Prof Deekshatulu.

2014

Prof. S Ranganathan

Prof. Srinivasa Ranganathan is NASI Senior Scientist Platinum Jubilee Fellow, Indian Institute of Science, Bangalore. His academic career as an educator and researcher in metallurgy for the past four decades has been stellar. His scientific and technical contributions to metallurgy and materials technology are multifaceted and of extraordinary depth and reach. His current research explores novel atomic configurations in the metallic state. The focus is on High-Entropy Alloys, Quasicrystals, Bulk Metallic Glasses and nano structured metals. Phase selection in multicomponent alloys has been elucidated by the application of Pettifor structure maps. The microstructures in these phases have been determined using X-rays, electron and field-ion microscopy.

Mr. S Ramadorai

Mr. S Ramadorai an icon of the IT industry has been in public service since February 2011. He is currently the Chairman of National Skill Development Agency (NSDA) in the rank of a Cabinet Minister. The NSDA is an autonomous body which coordinates and harmonizes the skill development efforts of the Government and the private sector to achieve the skilling targets of the nation. He is also Chairman of the National Skill Development Corporation (NSDC), a Public Private Partnership arm of the Government of India for creating large, for-profit vocational institutions. In February 2011, the Government had appointed him as the Adviser to the Prime Minister in the National Council on Skill Development, in the rank of a Cabinet Minister. This Council was subsumed into the NSDA in June 2013.

2013

Prof. KL Chopra

Prof Kasturi Lal Chopra, born on July 31, 1933, obtained his B.Sc. (Hons.) and M.Sc. Degrees in Physics from Delhi University in 1952 and 1954 respectively. He then obtained his Ph.D in "Low Temperature Physics" from University of British Columbia, Canada in 1957. As a postdoctoral Research Fellow of the Defence Research Board of Canada at the Royal Military College, during 1957 to 1959, he set up facilities to verify the latest BCS Theory of Superconductivity by measuring ultrasonic absorption in superconductors. This was followed by a stint as a Max Planck Fellow in Fritz Haber Institute, Berlin where he established a low temperature X - Ray Diffraction facility to determine asymmetry in electron density distribution in hexagonal metals. Subsequently, Prof Chopra joined Indian Institute of Technology Delhi and was Head, Department of Physics from 1970-1973.

Col SP Wahi *

Col (Dr.) Satya Pal Wahi (Retd.) born on November 6, 1929, graduated in Electrical and Mechanical Engineering from Banaras Hindu University in 1949. During his over 21 years Army service in the Corps of Electronic and Mechanical Engineering, he was associated with the manufacture of Vijayanta Tanks and had attachment with Vickers Armstrong, Leyland Motors; equipment manufacturing enterprises and with the British Army. Later, he took up the assignment of the Chief of the Planning, Progress & Inspection Djepartment of Bokaro Steel Plant till commissioning of the first Blast Furnace. Subsequently, he moved to Bharat Heavy Electricals Ltd. with a challenging responsibility of setting up its Foundry Forge Plant at Haridwar, as well operations of Heavy Electrical Equipment Plant. Simultaneously, he also joined the Board of Mishra Dhatu Nigam Limited to provide requisite impetus to the commissioning of its first plant in Hyderabad.

2012

Prof. P Rama Rao

Prof P Rama Rao, born on June 30, 1937 obtained his Ph.D. degree in Physics -Metallurgy from Banaras Hindu University (BHU), Varanasi, in 1964. He was a post-doctoral research associate during 1966-67 at the University of Pennsylvania, USA. He started his career as a faculty member of the Department of Metallurgy at the Indian Institute of Science, Bangalore in 1960 and then moved to BHU in 1962 as a Lecturer. He was appointed Professor of Physical Metallurgy at BHU in 1975 and continued till 1982. For the next 9 years, he served as Director, Defence Metallurgical Research Laboratory (DMRL),

Hyderabad. He rose to the position of Distinguished Scientist in DRDO in 1989. In 1991, he was appointed Secretary to Government of India, Department of Science and Technology, a position he held till 1995. Additionally, he held charge as Secretary, Department of Ocean Development. Subsequently, during 1996-99, he served as Chairman, Atomic Energy Regulatory Board, Government of India and as Vice-Chancellor, University of Hyderabad during 1999-2002. He was awarded distinguished Professorship by the Indian Space Research Organisation which he held during 2002-07. He was appointed as Member of the Atomic Energy Commission, Government of India in 2004 and continues to hold this position. Prof. Rama Rao is at present Chairman, Governing Council, ARCI, Hyderabad.

Dr. R.A. Mashelkar

Dr. R.A. Mashelkar, born on January 01, 1943, had his school education in Mumbai. After obtaining his B.Chem.Engg. (1966) and Ph.D. (1969) from Bombay University, he joined University of Salford, UK, first as a Leverhume Research Fellow (1969-80) and later as a Lecturer (1970-76). He began his professional career as a scientist in National Chemical Laboratory, Pune in 1976, where he created the first ever school of Polymer Science & Engineering in India. He was Director of National Chemical Laboratory (1989-1995) and then Director General of Council of Scientific & Industrial Research (1995-2006). Presently, Dr. Mashelkar is National Research Professor, National Chemical Laboratory and Chancellor, Academy of Scientific & Innovative Research (AcSIR). He is also the President of Global Research Alliance, a network of publicly funded R&D institutes from USA, Europe, Asia Pacific and Africa with over 60,000 scientists.

2011

Dr. VS Arunachalam

Dr. VS Arunachalam born on November 10, 1935, in Vallampadugai village in Tamil Nadu had his school education in Chidambaram. After obtaining M.Sc. degree from Sagar University in 1958, he joined the Atomic Energy Training School. In 1959, he began his professional career as a scientist in the Metallurgy Division of Atomic Energy Establishment and worked there for almost a decade. His initial research on the deformation and mechanical behaviour of nuclear metals was outstanding and was published in prestigious international journals. During his stay at Atomic Energy Establishment, he was granted study leave to pursue doctoral studies at University College of North Wales at Bangor in United Kingdom. Working under a renowned metallurgist Prof. Robert Cahn he completed his Ph.D in Materials Science and Engineering in 1965.

Mr. SS Chakraborty

Shri. SS Chakraborty, born on May 18, 1937 in Bengal, obtained his B.E Degree in Civil Engineering in 1957 from Bengal Engineering College (BESU). He worked on long-span bridges and roofs in Darmstadt University, West Germany under a Government scholarship programme as well as on iconic projects in UK such as pre-stressed concrete Medway Bridge and steel Swing Bridge over River Avon. He returned to India in 1962 and as the Chief Design Engineer, he led the efforts on the then longest cable-stayed bridge, Vidyasagar Setu across River Hooghly.

2010

Dr. Sam G Pitroda

Dr. Sam G Pitroda born on May 4, 1942 in Titlagarh, Orissa, obtained his Bachelor of Science and Master of Science Degrees in Physics from University of Baroda in 1962 and 1964 respectively. He obtained M.S. degree in Electrical Engineering from Illinois Institute of Technology, Chicago, USA in 1966. Dr. Sam Pitroda is an internationally respected development thinker, policy maker, telecom inventor and entrepreneur who has spent over four decades in Information and Communications Technology and related human and national developments initiatives. Credited with having laid the foundation of India's technology and telecommunications revolution in the 1980s, he has been a leading campaigner to help bridge the global digital divide.

Dr. M.R Srinivasan

Dr. M.R Srinivasan born in Bangalore on January 5, 1930, obtained B.E. (Mechanical Engineering) degree from College of Engineering, Bangalore, Mysore University in 1950. He obtained the Master of Engineering degree in 1952 and Doctor of Philosophy degree in 1954 from Mc Gill University, Montreal, Canada. His field of specialization was gas turbine technology.

2009

Dr. R Chidambaram

Dr. Rajagopala Chidambaram, born on November 12, 1936, after his early education in Meerut and Chennai, completed his Ph.D. from the Indian Institute of Science, Bangalore, from where he also later obtained the D.Sc. Degree. He joined the Bhabha Atomic Research Centre (BARC) in 1962 and became its Director in 1990. He was Chairman, Atomic Energy Commission & Secretary to the Govt. of India in the Department of Atomic Energy from February 1993 to November 2000. Since 2001, he is the Principal Scientific Adviser to the Govt. of India and Chairman of the Scientific Advisory Committee to the Cabinet. Besides this, he is DAE Homi Bhabha Chair Professor at the Department of Atomic Energy, and also an Honorary Visiting Professor in the Department of Physics of Banaras Hindu University.

Mr. N.R. Narayana Murthy

Mr N. R. Narayana Murthy, born on August 20, 1946 obtained B. E. (Electrical Engineering) from the University of Mysore in 1967 and M. Tech. in Electrical Engineering from the Indian Institute of Technology, Kanpur in 1969. He has been conferred Honorary Doctorates by nine universities in India. Mr Murthy founded Infosys Technologies in 1981 along with six other software professionals. He served as the Chief Executive Officer of the company since Infosys' inception till March 30, 2002. Currently, he is the Chairman of the Board and Chief Mentor of Infosys.

2008

Mr. Ratan Naval Tata

Mr. Ratan Naval Tata born on December 28, 1937 in Bombay received his Bachelor of Science Degree in Architecture and Structural Engineering from Cornell University in 1962. He worked briefly with Jones and Emmons in Los Angeles, before returning to India in late 1962. He completed the Advanced Management Program at Harvard Business School in 1975. Mr Tata joined the Tata Group in December 1962. He was appointed the Director-in-Charge of The National Radio & Electronics Company Limited (NELCO) in 1971. In 1981, he was named Chairman of Tata Industries where he was responsible for promoting new ventures in high technology areas.

Dr. E Sreedharan

Dr. E Sreedharan born on June 12, 1932 graduated in Civil Engineering from the Government College of Engineering, Kakinada in 1953 with first rank in the University. After a short stint as Lecturer in Civil Engineering, Kerala Polytechnic, he joined Bombay Port Trust as a Sub-Engineer on the new Marine Oil Terminal project in Butcher Island. He joined Southern Railway as an Assistant Engineer in 1954 and worked on the Quilon-Ernakulam new Metre Gauge line and thereafter as an Executive Engineer on the Mangalore-Hasan Railway where he was in-charge of construction of the 52 Km ghat section involving 48 tunnels and a number of via-ducts. When the 126 spans of the Pamban Railway Bridge were washed away by tidal waves in December 1963, he was selected by the Railway Ministry for its restoration; which he accomplished in a period of just 46 days against the set target of six months.

2007

Dr. C.G. Krishnadas Nair

Padmashree Dr Chandrathil Gouri Krishnadas Nair born on 17th August 1941 had his primary education in Kerala and graduated with distinction in Metallurgical Engineering from IIT, Madras, Chennai in 1964. He obtained Masters Degree (Mechanical Engineering - 1966) and PhD in Engineering (1968) from the University of Sask, Canada. He was Former Chairman, Hindustan Aeronautics Limited and is recognized for outstanding contributions in Engineering Science and Technology. During his distinguished professional career spanning over 36 years, he has made significant lifetime contributions in Engineering, Education, Research and Industry Management.

Dr. BN Suresh

Padmashri Dr. Byrana Nagappa Suresh was born on 12th November 1943 in Chikmagalur Dist, Karnataka. He obtained his Bachelors degree in Science and Engineering from Mysore University in 1963 and 1967 respectively. He received his M.Tech from IIT Chennai in 1969 and his Doctorate in Control Engineering from Salford University at U.K under Commonwealth Scholarship. He is presently Director, Vikram Sarabhai Space Centre which is the lead Centre for the development of launch vehicles in 2003. He is also Member Space Commission.

2006

Dr. Anil Kakodkar

Born on 11th November 1943, Dr. Anil Kakodkar had his early education at Khargone in Madhya Pradesh. He graduated in Mechanical Engineering in 1963 from VJTI, Mumbai. He went through the Orientation training at BARC Training School in its 7th Batch and did his M.Sc. in Experimental Stress Analysis from University of Nottingham, UK in 1969. Dr Kakodkar was Director, BARC during 1996-2000 and currently holds the position of Chairman, Atomic Energy Commission. He is also Chairman of the Board of Governors of the Indian Institute of Technology, Bombay and Chairman, Governing Body of the Inter-University Centre for Astronomy and Astrophysics, Pune.

Dr. Kota Harinarayana

Dr. Kota Harinarayana was born on 14th May 1943 in Berahampur Dist., Orissa. He obtained his Bachelor's degree in Mechanical Engineering from Banaras Hindu University in 1965, Masters Degree in Aeronautical Engineering from Indian Institute of Science in 1967 and Ph.D in Aircraft Design from Indian Institute of Technology, Bombay in 1982. He joined Hindustan Aeronautics Limited in 1982 as the Chief Designer of Nasik Division. He led the team in improving the MiG 21 Fighter Aircraft. Dr. Kota Harinaryana's professional career of more than three and half decades has been dedicated to the advancement of science and technology capabilities of India, in the field of Aviation. Currently he is Distinguished Guest Professor at IIT, Bombay and Raja Ramanna Fellow of DAE at National Aerospace Laboratories, Bangalore.

2005

Prof. Vaidyeswaran Rajaraman

Prof. Vaidyeswaran Rajaraman, born on September 8, 1933 in Tamil Nadu did his B.Sc.(Hons.) in Physics and Mathematics from St Stephen's College, Delhi with an outstanding academic record. After completing his diploma in Electrical Communication Engineering from Indian Institute of Science, Bangalore he obtained M.S. degree in electrical engineering from Massachusetts Institute of Technology, USA and PhD from University of Wisconsin USA.

Prof. Gitindra Saran Sanyal *

Late Prof. Gitindra Saran Sanyal, born on February 1,1922 in Assam did his B.Sc.(Hons) in Physics and M.Sc. in Applied Physics from Calcutta University with an excellent academic record. Subsequently, he went to the United Kingdom for further specialized studies and obtained general and advanced diplomas in 'Radio Engineering' and 'Radar'.

2004

Prof. Dwijesh Dutta Majumder

Prof. Dwijesh Dutta Majumder, born on February 10, 1932 in Bangladesh, did his B.Sc.(Hons) in Physics from Guwahati University and completed his M.Sc.(Tech) and Ph.D. in Radio Physics and Electronics from Calcutta University in 1955 and 1963 respectively. He joined as a Senior Research Engineer in Indian Statistical Institute (ISI) in 1961 where he rose to become Professor and Chairman, National Centre of Knowledge Based Computing.

Dr. K Kasturirangan

Dr. Krishnaswamy Kasturirangan, born on October 24, 1940, at Ernakulam in Kerala, took his Bachelor of Science with Honours (Physics) in 1961 and Master of Science in Physics in 1963 from Bombay University. He received his Doctorate Degree in Experimental High Energy Astronomy in 1971 for his work on the design and development of balloonborne X-ray astronomy telescope and gamma-ray spectrometer systems at the Physical Research Laboratory, Ahmedabad.

2003

Dr. S Varadarajan

Dr. Srinivasan Varadarajan, born in Bangalore on 31St March, 1928 had his education at Andhra, Madras, Delhi and Cambridge Universities. Following a Ph.D. Degree in Chemical Sciences from Delhi University in 1952, he obtained a second Doctorate Degree from the Cambridge University working on structural linkages in RNA as a Research Fellow of the Royal Commission for the Exhibition of 1851. As a Visiting Lecturer during 1956-57 at the Massachusetts Institute of Technology, he did pioneering research related to biosynthesis of DNA. He returned to Cambridge as a Beit Memorial Fellow in Medical Research during 1957-1959.

Prof. Roddam Narasimha

Prof. Roddam Narasimha, born in Bangalore on 20 July, 1933, was educated as a Mechanical Engineer at the University College of Engineering and as an Aeronautical Engineer at the Indian Institute of Science, both at Bangalore and obtained his Ph.D. Degree from California Institute of Technology, in 1961. Soon after, he joined the Department of Aerospace Engineering at the Indian Institute of Science, with which he was associated in various capacities till 1999. In 1982, he founded the Centre for Atmospheric Sciences which he headed till 1989. During 1984-1993, he was Director of the National Aerospace Laboratories. For many years since 1983, he held a visiting position at Caltech, as Clark B Millikan Professor or Sherman Fairchild Distinguished Scholar. During 1989-90, he was Jawaharlal Nehru Professor of Engineering at Cambridge University in England.

2002

Dr. Jamshed J Irani

Dr. Jamshed J Irani, born in 1936 obtained his BSc degree from Science College, Nagpur and an MSc in Geology from Nagpur University. He also obtained a Masters degree in Metallurgy and PhD from University of Sheffield, UK. He began his career at the British Iron and Steel Research Association. After returning to India he joined the Tata Iron and steel Company and transformed the century old Tata iron and Steel works into a world class modern steel plant producing steel at the lowest cost. He achieved this by managing human, engineering ad financial resources through a well planned series of modernization steps. Dr Irani has been involved in the working groups for iron and steel for the 6th, 7th, and 8th National Five –year Plans. He is a recipient of the Metallurgist of the Year award from the Ministry of Steel and Mines and the Platinum Medal by the Indian Institute of metals. He was also awarded the steel man of the Year 1990 Award and the Asian Productivity Medal.

Prof Anand Swarup Arya

Prof Anand Swarup Arya, in 1931 obtained his Bachelor's Degree in Civil Engineering and Master's Degree in Structural Engineering from University of Roorkee and PhD from University of Illinois, USA. He served as faculty at University of Roorkee since 1954 and rose to the position of Head of Earthquake Engineering Department in 1971 and Pro-Vice Chancellor in 1988. He is Seismic Advisor to Government of India and Professor Emeritus , IIT Roorkee. He played a key role in developing indigenous expertise relating to earthquake disaster prevention and mitigation for a variety of structures ranging from common man's housing to multi-storey buildings, bridges, dams, nuclear power plants and petrochemical complexes this building self-reliance in this area.

Dr Arya has been advising a large number of nationally important projects regarding earthquake safe design in the country. His contributions through the Bureau of Indian standards; Building Materials and Technology Promotion Council; Housing and Urban Development Corporation and Department Science and Technology are noteworthy. He is a recipient of numerous awards from the Federation of Indian Chambers of Commerce and Industry; Institution of Engineers (India); Indian Society of Earthquake Technology and University of Roorkee. United Nations conferred him with the DHA-Sasakawa Disaster Prevention Award for the year 1997 and he was awarded the Padma Shri Award by the President of India in 2002. He has made significant contributions in formulation of the Codes of practice as well as guidelines for earthquake resistant design and construction of buildings.

2001

Prof. Man Mohan Sharma

Prof. Man Mohan Sharma born in 1937, and was educated at Jodhpur, **Mumbai** and **Cambridge**. At the age of 27 years, he was appointed Professor of Chemical Engineering in the **University of Mumbai**, Department of Chemical Technology. He later went on to become the Director of **Institute of Chemical Technology**, the first chemical engineering professor to do so from ICT. In 1990, he became the first Indian engineer to be elected as a Fellow of **Royal Society**, UK. He is an exponent of innovations and stressed that the industry should adopt techniques that lead to the successful implementation of technologies. This resulted in substantial improvement in turnover in different sectors of the chemical industry such as soda ash, petrochemical, pharmaceutical and petroleum refining. He was a Member of the Scientific Advisory Committee to the Cabinet, Government of India. He was awarded the **Padma Bhushan** in 1987 and the Padma Vibhushan in 2001 by the **President of India**. he has also been awarded the **Leverhulme Medal of the Royal Society**, the **S.S. Bhatnagar Prize in Engineering Sciences** in1973, **FICCI Award** in 1981, the **Vishwakarma medal** of the Indian **National Science Academy** in 1985, **G.M. Modi Award** in1991, **Meghnad Saha Medal** in1994, and an honorary Doctor of Science degree from **Indian Institute of Technology, Delhi** in 2001.

Prof. UR Rao *

Late Prof. UR Rao born in 1932 obtained his BSc from Madras University, MSc from Banaras Hindu University and PhD from Gujarat University. Starting his research career as a cosmic ray scientist under the guidance of late Dr Vikram Sarabhai, he was the first to establish the continuous nature of solar wind and its effect on geomagnetism. He is internationally renowned for several original contributions to cosmic rays, space technology, Interplanetary Physics and High energy astronomy. During the first 17 years of his research career he was associated with the Physical Research laboratory, Ahmedabad. After Post doctoral research at MIT, he started the satellite programme which resulted in the launch of 18 satellites. His monumental contributions to the establishment of satellite technology began with the launch of Aryabhatta, the first Indian satellite in 1975. The design and development of Bhaskara, Rohini, APPLE, INSAT and IRS series took place under his leadership. Having held several positions of responsibility in the Indian Space Research organization such as Project director, Aryabhatta satellite project and Director, satellite centre, Bangalore, he was appointed Chairman, Space Commission and Secretary, Department of Space, Government of India in 1984. He is a recipient of several prestigious awards including the Shanti Swarup Bhatnagar Prize; Aryabhatta award; Meghnad Saha Medal; Vikram Sarabhai Award and the Jawaharlal Nehru award. He was also conferred Honorary doctorates by 17 universities.

2000

Dr. APJ Abdul Kalam *

Born on 15th October 1931, Dr. APJ Abdul Kalam, specialized in Aeronautical Engineering from Madras Institute of Technology. Dr. Kalam made significant contribution as Project Director to develop India's first indigenous Satellite Launch Vehicle (SLV-III) which successfully injected the Rohini satellite in the near earth orbit in 1980. He took up the responsibility of developing Indigenous Guided Missiles at Defence Research and Development Organisation as the Chief Executive of Integrated Guided Missile Development Programme (IGMDP). He was responsible for the development and operationalisation of AGNI and PRITHVI Missiles and for building indigenous capability in critical technologies through networking of multiple institutions. He was the Scientific Adviser to Defence Minister and Secretary, Department of Defence Research & Development from July 1992 to December 1999. During this period he led to the weaponisation of strategic missile systems and the Pokhran-II nuclear tests in collaboration with Department of Atomic Energy, which made India a nuclear weapon State. He also gave thrust to self-reliance in defence systems by progressing multiple development tasks and mission projects such as Light Combat Aircraft.
As Chairman of Technology Information, Forecasting and Assessment Council (TIFAC) and as an eminent scientist, he led the country with the help of 500 experts to arrive at Technology Vision 2020 giving a road map for transforming India from the present developing status to a developed nation. He has served as the Principal Scientific Advisor to the Government of India, in the rank of Cabinet Minister, from November 1999 to November 2001 and was responsible for evolving policies, strategies and missions for many development applications. He was also the Chairman, Ex-officio, of the Scientific Advisory Committee to the Cabinet (SAC-C) and piloted India Millennium Mission 2020. He has received honorary doctorates from 30 universities and institutions. He was President of the Indian National Academy of Engineering during 1995 -1996. He has been awarded the Padma Bhushan Award in1981; Padma Vibhushan in 1990 and the highest civilian award Bharat Ratna in1997. Dr. Kalam became the 11th President of India on 25th July 2002. His focus is on transforming India into a developed nation by 2020.

Dr. FC Kohli

Dr. FC Kohli, born in 1924 received his Bachelor's Degree in Electrical Engineering from Queen's University, Canada and Master's Degree from Massachusetts Institute of technology, USA. He was instrumental in establishing the Tata Electric Companies as a highly reliable electric power generation and distribution company. In 1968 he was transferred to the newly formed Tata Consultancy Services (TCS). He nurtured this company to its current state of being a premier company. TCS has been the pioneer of the Indian software industry, charting the waters of international software services, investing in in-house training so as to create the capability to be in step with the rapid technological evolution in Information Technology. He was awarded the **Padma Bhushan** award by the President of India in 2002. He has also has been awarded honorary degrees from **University of Waterloo**, Canada, **Robert Gordon University, U.K**, **IIT Bombay**, **IIT Kanpur**, **Jadavpur University**, and **University of Roorkee**. He is also a fellow of **IEEE**, IEE UK, Institution of Engineers India, and Computer Society of India.

1999

Dr. Arcot Ramachandran *

Late Dr. Arcot Ramachandran, born in 1923 obtained his Master's and Doctoral Degrees in Mechanical Engineering from Purdue University, USA. Joining as its first Faculty Member in the graduate programme in Mechanical Engineering at the Indian Institute of Science, Bangalore, he founded the School of research in Energy and Heat Transfer. In 1967, he became the Director of IIT Madras where he established Schools of heat transfer and energy research. In 1973 he was appointed as Secretary to the Government of India in the Department of Science and Technology and was later concurrently the Director-General of the Council of Scientific and Industrial Research. Dr Ramachandran played a significant role in engineering education in the country. He was Chairman of the Preparatory Committee for United Nations Conference on science and technology for development during 1977-78 and the UNESCO Expert Group on Environmental Aspects on engineering education. He is a recipient of the Heat Transfer Award of the American Society of Mechanical Engineers. He has had a distinguished career in engineering and technology.

Dr. Homi N Sethna *

Late Dr. Homi N Sethna, born in 1923, obtained his Master of Science in Engineering from University of Michigan, USA and was one of the most illustrious engineers in India. His contributions as Director of the Bhabha Atomic Research Centre from 1966 and subsequently as Secretary to the Government of India and Chairman of the Atomic Energy Commission are well recognized. He designed and constructed India's first Plutonium Plant at Trombay in 1964. He had been the Chancellor, North Eastern Hill University; Chairman, Board of Governors, IIT Delhi and IIT Bombay and Deputy Secretary General to the United Nations International Conference on "Peaceful Uses of Atomic Energy, Geneva. He was awarded the Shanti Swarup Bhatnagar Prize; Sesquicentennial award by the University of Michigan; Sir Walter Puckey Prize and Sir William Jones Memorial Medal. He was conferred Honorary Doctorate by Marathwada University, Jawaharlal Nehru Technological University; University of Roorkee; Banaras University and Delhi University. He was a Foreign Member of the Royal Swedish Academy of Engineering Sciences. He was awarded Padma Shri in 1959; Padma Bhushan in 1966 and Padma Vibhushan in 1975 by the President of India. He represented a distinguished combination of institutional leadership in industry, a visionary in nuclear energy programme and an administrator of exceptional order.

1998

Prof. RN Dogra *

Late Prof Rajinder Nath Dogra, born in 1908, had a brilliant academic career. After obtaining his Bachelor's Degree in Engineering and Diploma of the Imperial College, he obtained M.Sc in Highway Engineering from the University of London. He was a distinguished Civil Engineer and an eminent educationist. He worked with the Punjab Public Works Department and was responsible for the planning of the highway system in the state. His career as an educationist commenced with his appointment as Principal of the Punjab Engineering College, Chandigarh and thereafter of the newly established College of Engineering and Technology, Delhi in 1961. The College was raised to the status of an Indian Institute of Technology in 1963 and as Founding director of IIT Delhi; he built it up as a centre of excellence in teaching and research and retired in 1972. The same year, he was appointed as the Minister of Educational and Scientific Affairs in the High Commission of India in London. Prof Dogra was the Founder President of the Indian Society for Technical Education and was elected as the Vice-Chairman of the Association of Commonwealth Universities and also as the President of the Association of Indian Universities. In recognition of his outstanding contributions, he was awarded the Fellowship of Imperial College, London in 1971and the Honorary Degree of Doctor of Science by IIT Delhi in 1975. He had made significant contributions to engineering as a planner and educationist.

Dr. Dara P Antia *

Late Dr Dara P Antia, born in 1914 obtained his Bachelor of Science Degree in Metallurgical Engineering from Banaras Hindu University; Doctor of Science in Physical Metallurgy and Mineral Economics from Massachusetts Institute of Technology, USA. He also graduated in Advanced Management Programme from Harvard Business School, USA. He was a prominent scientist, metallurgist and management consultant. He worked as Secretary, Metal Industries Panel, Department of Planning and thereafter as Director, Controller and Development Officer for Metals, Govt. of India. Later he joined the National Carbon Company and retired as its Deputy Managing Director. He established the Indian Institute of Metals in 1946. He promoted the Indian Lead-Zinc Information Centre and was its Chairman. He was also President of the Indian Copper Development Centre. He pioneered and supervised R&D in the organizations in which he worked. He was a Member of the Metals Committee of CSIR and of the Governing Council of the National Metallurgical Laboratory from its inception. He also took active part in promoting technical education in India. He served on the All India Council for Technical Education for many years and was instrumental in getting new courses and departments started by IITs. He was awarded the Howe Medal of the American Society of Metals; Scroll of honour by the Institution of Engineers (India); Platinum Medal of the Indian Institute of Metals and Tata Gold Medal. He was also awarded the first Syed Husain Zaheer Medal of the Indian National Science Academy for outstanding contribution in engineering and technology.

1997

Prof. Satish Dhawan *

Late Prof. Satish Dhawan, born in 1920 obtained his BE in Mechanical Engineering from University of Minnesota, USA; MS in Aeronautical Engineering from California Institute of Technology and PhD in Aeronautics and Mathematics. He was an outstanding Indian rocket scientist. He is considered by the Indian scientific community to be the father of experimental fluid dynamics research in India and one of the most eminent researchers in the field of turbulence and boundary layers. He succeeded Vikram Sarabhai, the founder of the Indian space programme, as Chairman of the Indian Space Research Organisation (ISRO) in 1972. He was also the Chairman of the Space Commission and Secretary to the Government of India in the Department of Space. In the decade following his appointment he directed the Indian space programme through a period of extraordinary growth and spectacular achievement. Even while he was the head of the Indian space programme, he devoted substantial efforts towards boundary layer research. His most important contributions are presented in the seminal book Boundary Layer Theory by Hermann Schlichting. He was a professor at the Indian Institute of Science, Bangalore. He is credited for setting up the first supersonic wind tunnel in India at IISc. He also pioneered research on relaminarization of separated boundary layer flows, three-dimensional boundary layers and trisonic flows. Prof. Satish Dhawan carried out pioneering experiments in rural education, remote sensing and satellite communications. His efforts led to operational systems like INSAT- a telecommunications satellite, IRS - the Indian Remote Sensing satellite and the Polar Satellite Launch Vehicle (PSLV) that placed India in the league of space faring nations.

Prof. Jai Krishna *

Late Prof. Jai Krishna, an eminent educationist, researcher and academic administrator was born on Feb 14, 1912. After obtaining his Bachelor's degree in Science, he studied Civil Engineering at Thompson College of Engineering, Roorkee (now IIT Roorkee) where he was awarded the Thompson prize. He obtained his Doctoral Degree in Civil Engineering from University of London in 1954. He jointed the Thompson College as Lecturer in 1939 where he rose to the rank of Professor in 1960. In 1971, he was appointed as the Vice Chancellor of the University of Roorkee. A doyen of Structural and Earthquake Engineering, he was credited with pioneering research contributions in this area. He established a school for training and research in the field of Earthquake Engineering at the University of Roorkee.His work related to the development of methods of strengthening engineering structures against earthquake forces. Some of his contributions include: evolution of simple methods of strengthening buildings, bridges, water towers and dams; design and fabrication of seismic instruments and evolution of concepts of iso-acceleration studies pertaining to seismic energy distribution. The methods evolved by him for common brick and stone buildings to resist earthquakes have been widely adopted in India and abroad. His expertise was utilized for preparing Codes of Practice relating to earthquake resistant construction in India and by the International Association of Earthquake Engineering in the preparation of the guidelines for seismic zoning of countries and determining fundamental design parameters. For his services to Earthquake Engineering studies, he was awarded at the International Conference in Tokyo in 1983. The Government of India honoured him with the Padma Bhushan award in 1972. He was also awarded the Shanti Swarup Bhatnagar Prize.

***Deceased**