

## Chief Guest

# Dr. A P J Abdul Kalam

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Born on 15<sup>th</sup> October 1931 at Rameswaram in Tamil Nadu, Dr. Avul Pakir Jainulabdeen Abdul Kalam, graduated in Science from St. Joseph's College, Trichy in 1954 and specialized in Aeronautical Engineering from Madras Institute of Technology (MIT) in 1957. Dr. Kalam is a pioneer in fibre glass technology and led a young team to initiate this effort in ISRO from design development, leading to production of composites rocket motor cases. Dr. Kalam made significant contributions as the Project Director, to develop India's first indigenous Satellite Launch Vehicle (SLV-3), which successfully injected the Rohini satellite in the near earth orbit in July 1980 and made India an exclusive member of the Space Club.

He was responsible for the evolution of ISRO's launch vehicle programme, particularly the PSLV configuration. After working for two decades in ISRO and mastering launch vehicle technologies, Dr. Kalam took up the responsibility of developing Indigenous Guided Missiles at the 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. One of his significant contribution was creating Research Centre Imarat for advanced technologies. He was the scientific adviser to the 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 the 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 the 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. Dr. Kalam 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. Dr. Kalam was also the Chairman, Ex-officio, of the Scientific Advisory Committee to the Cabinet (SAC-C) and piloted India Millennium Mission 2020.

In the bio-medical area, Dr. Kalam along with his team collaborated with medical specialists in the development of Kalam-Raju stent during 1994 - 1996. Kalam-Raju cardiac stent, after qualification trials, has been fitted to many needy patients. This development has further led to the creation of a production unit of state-of-the-art stents. Also, he had initiated the use of carbon-carbon and carbon-polymer materials for production of floor reaction orthosis calipers, which has reduced the weight of the caliper to 1/10<sup>th</sup> of the original weight during 1995 - 1996. Over 50,000 children have been fitted with these calipers.

Dr. Kalam took up academic pursuit as a Professor, at the Technology & Societal Transformation at Anna University, Chennai from November 2001 and was involved in teaching and research tasks. Above all, he took up a mission to ignite the young minds for national development by meeting school students across the country. During the last decade, Dr. Kalam has addressed over five million youth below the age of 17 and inspired them to become an active participant of India Vision 2020. He has addressed several children science congresses across the country.

Dr. Kalam is passionate about bringing rural prosperity through PURA (Providing Urban Amenities to Rural Areas), in which science and technology has played a key role. Based on his diverse experiences, he has been propagating the concept of World Knowledge Platform, through which the core competencies of organizations and nations can be synergized to innovate and create solutions and products for the challenges of 21<sup>st</sup> century.

In his literary pursuit Dr. Kalam authored a number of books, such as 'Wings of Fire', 'India 2020 - A Vision for the New Millennium', 'My journey' and 'Ignited Minds - Unleashing the power within India', 'Indomitable Spirit', 'Guiding Soul', 'Envisioning an Empowered Nation', 'Inspiring Thoughts', 'Children Ask Kalam', 'You are born to blossom', 'Family and the Nation', 'Turning Points (2012)', 'Squaring the Circle - Seven steps to Indian Renaissance (2013)', 'Life Tree' and 'The Luminous Sparks' a collection of his poems. Many of them have become household names in India and among the Indian nationals abroad. These books have been translated into many Indian and foreign languages.

Dr. Kalam is one of the most distinguished scientists of India with the unique honour of receiving honorary doctorates from 46 Universities and institutions from India and abroad. The Honorary Doctorates include, Nyenrode Business University, Netherlands; Nanyang Technological University, Singapore; Carnegie Mellon University, Pittsburg USA; University of Wolverhampton, UK; University of Kentucky, USA; Oakland University, Michigan USA; University of Waterloo, Canada; University Sans Malaysia, Malaysia University of Sydney, Australia and the Simon Fraser University, Vancouver.

He has been awarded with the coveted civilian awards - Padma Bhushan (1981) and Padma Vibhushan (1990) and the highest civilian award, Bharat Ratna (1997). He is a recipient of several other awards and Fellow of many professional institutions.

### International Recognitions

The Royal Society, UK has awarded Dr. Kalam with the 'King Charles-II Medal' for Science and Technology in October 2007. He received the Woodrow Wilson Award in 2008. The Royal Academy of Engineering, London conferred on him the International Medal 2008 in June 2009 at London. The Hoover Board of Awards presented him the Hoover Medal 2008 at New York in April 2009. The Aerospace Historical Society in Collaboration with the Graduate Aerospace Laboratories (GALCIT) at the California Institute of Technology awarded him the '2009 International Von Karman Wings Award' in September 2009. On 24<sup>th</sup> May 2013 the National Space Society, USA awarded him with its most prestigious award THE WERNHER VON BRAUN MEMORIAL AWARD at San Diego, California.

Dr. Kalam became the 11th President of India on 25<sup>th</sup> July 2002. After five eventful years he demitted office on 25<sup>th</sup> July 2007. His focus is on transforming India into a developed nation by 2020. His accent is on constructive networking and excellent human resources for an economically developed, prosperous and peaceful society.