

BRIEF PROFILE OF Dr VIJAY KUMAR SARASWAT

Dr Vijay Kumar Saraswat, India's most gifted scientist and an accomplished researcher with more than four decades of experience spanning over several fields and areas in both basic and applied sciences of defence research. Apart from being a scientist, he is a rare combination of an innovator, technologist and visionary.

Born at Gwalior on 25 May 1949, Dr Saraswat completed his engineering from Gwalior; Master of Engineering from IISc Bangalore followed by Ph.D from Osmania University.

During his illustrious career, from Scientist to Scientific Adviser to Defence Minister, Director to Director General DRDO and Secretary to Dept of Defence R&D, Dr Saraswat has been credited with development of Liquid Propulsion Rocket Engines and missiles namely PRITHVI, DHANUSH, PRAHAAR indigenously. He is the principal *architect* of the Ballistic Missile Defence *programme which included major technology breakthroughs*. The successive interceptions of incoming target ballistic missiles at Exo and Endo atmospheres are a testimony to his dedicated efforts and exploitation of limited technological resources. With this India joined the select nations that have the capability to develop BMD systems.

Dr Saraswat brought new dimensions to the strategic defence scenario through successful test firing of **AGNI-5**; SHOURYA; Initial Operational Clearance for Light Combat Aircraft TEJAS and induction of INS Arihant. Thus, today nation can boast of reaching any shores in the world with the nuclear capable missiles with different strike ranges.

Under his leadership, DRDO provided the technologies developed by them for societal benefits namely **Solar Powered Modular Green Shelters, Bio-Digesters, AAHAR programmes, explosive detection kit, Diagnostic Units for Dengu and Chickengunia etc.**

Dr Saraswat's pioneering efforts have taken shape into establishment of Research & Innovation Centre **at IIT Madras; MILIT-** Centre for Training needs of armed forces on S&T ; **CERT** for reporting, auditing

and handling emergency response of Information Security Incidents; **CHES** – futuristic technology Centre for High Energy Laser and Microwave devices; **Kyrgyz-Indian Mountain Bio-Medical Research Centre at Kyrgyzstan**; The *new international airport* and *Aerospace SEZ at Hyderabad* and *Advanced Combustion Research Centers at IISc and IIT(M)*

Till recently, *Dr Saraswat* was *DAE Homi Bhabha Chair* and initiated development of technologies for **Energy Security** namely Bio-Mass, Solid Waste Management, Fuel Cells, Concentrated Solar Power, Multi Junction Photovoltaic Cells, Clean Coal Technologies etc., in the country at various Industrial and Academic Institutions in addition to bringing new dimensions to **Aerospace Manufacturing**.

Dr Saraswat is the recipient of many national and international awards including

- ✚ **PADMABHUSHAN** (2013)
- ✚ **PADMASHRI** (1998)
- ✚ Vikram Sarabhai Memorial Award from Indian Science Congress (2011);
- ✚ Lifetime Achievement Award by Ramakrishna-Vivekananda International Foundation, New Delhi;
- ✚ Prof Jai Krishna Memorial Award by Indian National Academy of Engineering (INAE);
- ✚ Dr Y Nayudamma Memorial Gold Medal for the year 2011 by AP Science Congress;
- ✚ Jawaharlal Nehru S&T Award (2009) by Govt of Madhya Pradesh;
- ✚ FICCI Annual Award;
- ✚ ARYABHATA Award (2011) from Astronautical Society of India;
- ✚ National Aeronautical Prize (1998)

Dr Saraswat is Fellow / Member of following Professional Bodies:

- ✚ International Academy of Engg, Russia elected as Member of Academy and honored him as Academician (2007)

- + Fellow of Indian National Academy of Engineering
- + Fellow of Aeronautical Society of India & **President** of Aeronautical Society of India
- + Fellow of Institution of Engineers (India).
- + Fellow of Astronautical Society of India.
- + Fellow of Institute of Electronics & Telecommunication Engineers
- + **Chairman** for Combustion Institute (India Section) and Life Member of Combustion
- + Life Member of Instrumentation Society of India.
- + Life Member of The Indian Science Congress Association
- + Fellow of Andhra Pradesh Academi of Sciences
- + Fellow of Systems Society of India
- + Fellow of Society for Shock Wave Research (India)
- + Member of Institute of Smart Structures & Systems

Honoris Causa was conferred upon him by more than 18 Universities including Andhra University (Visakhapatnam), NIT Surat. He has also authored and presented several papers for at National & International level journals / conferences and guided eight Ph.D Scholars.

Dr Saraswat presently is the **Member NITI Aayog** and shouldering many Honorary positions in Government and Academic Institutions.