

DR. VIJAY KUMAR SARASWAT
MEMBER, NITI AAYOG &
CHANCELLOR, JAWAHARLAL NEHRU UNIVERSITY

Dr. Vijay Kumar Saraswat retired as Secretary, DRDO, after more than four decades of Government service. He is ME from IISc Bangalore and Phd from Osmania University and a gifted scientist with vast experience in defence research in both basic and applied sciences.

During his illustrious career, Dr Saraswat, has been credited with indigenous development of (i) Missiles namely PRITHVI, DHANUSH, PRAHAAR and AGNI-5; (ii) Development of two-tiered Ballistic Missiles Defence (BMD) systems (iii) Initial Operational Clearance of Light Combat Aircraft TEJAS; and Nuclear Submarine INS Arihant.

As Secretary DRDO Dr. Saraswat played a pivotal role in: (i) establishment of the command, control, communication, storage, transportation and deployment infrastructure for strategic nuclear assets to support the nuclear doctrine; (ii) Flight Evaluation of long range sub-sonic cruise missile (iii) Long Range Radars for tracking incoming (enemy) Ballistic missiles, Command control and communication network, Command Centres with decision support system for defence of National Capital Region against enemies' ballistic missile threat, (iv) Established Cyber Security Research and Development Centre for developing offensive and defensive technologies for cyber security.

As Homi Bhabha Chair Professor and Consultant to IOCL R&D, evolved a road map for development of Alternate Energy Systems viz. clean coal technologies, High Efficiency Concentrated Solar Power Systems, Bio-energy and Hydrogen based economy. Presently he is Chairman of Research Advisory council of IOCL R&D.

As Chairman NTPC R&D Advisory Council similar alternate energy technology development plan has been prepared with focus on clean coal technologies viz. Integrated Gasification and combined cycle system, Advanced ultra-super critical Thermal Power Plant to work on efficiencies better than 40% and highly reduced greenhouse emissions.

Initiated a programme for development of Silicon-Photonics technology by setting up Photonics Valley Corporation at Telengana. Govt. of Telengana initiative in collaboration with Photonics Inc USA. This will be a game changer for the next generation of networks like 5G and super computers.

As Chairman of Committee for development of Indian Microprocessor led a team to evolve the configuration of the M-Processor for IOT, Smart Cities and other ICT applications, laid out the strategy for development with DieTy, CDAC, IIT(M), IIT(B) and SCL Chandigarh. Two devices have already been developed in IIT(B) and IIT(M).

Evolved a Concept Document for setting up Indian Railway Research Institute (SHRESHTHA) for Indian Railway that would propel indigenous designs and manufacturing in the forthcoming programmes like High Speed Rail System and Dedicated Freight Corridor and usher a new era of R&D in Railway.

As Member, NITI Aayog, Initiated a programme to develop “Methanol Economy” for transportation, energy generation and production of chemicals, fertilizers etc. Production agencies, academic institutions and Petro-refineries have been brought on a common platform to leap frog in “Methanol Economy”. M-15 gasoline blend, methanol cook stove and methanol fueled propulsion for Inland Waterways and Methanol-fueled gensets are being introduced as part of “Methanol Economy” initiative in the country. R&D activity in gasification of High Ash content Indian coal has been initiated at Academia & Industry.

Chaired a Committee on Technical Textile and prepared a roadmap for futuristic growth of technical textiles in India with respect to promotion of industries for indigenous production of technical textiles and fibres such as Carbon and Aramid for strategic and ballistic needs, laying due emphasis on reviving R & D structure in the sector.

Chaired a Committee and submitted a Report titled “Roadmap for Make in India in Body Armour”, release of Indian Standards on body armour by BIS, R&D work on Carbon Nano Tube etc.

Led an Empowered Technical Advisory Committee for the development of National Super Computing Systems. Configuration and strategy for development have been evolved and programme has been launched as a multi-organisation mission.

He is a recipient of many awards and most notable among them being Padma Shri (1998), Padma Bhushan (2013). He has been conferred Honorary Doctorate by more than 25 Universities the latest among them being Jamia Humdard (2018).
