
National Award for Atmospheric Science & Technology

Dr. B.V. Krishna Murthy



Dr. B.V. Krishna Murthy has retired as Director, Space Physics Laboratory (SPL), VSSC, Thiruvananthapuram after a stint of 30 long years at ISRO. Currently, he is a Visiting Professor at SRM University, Kattankulathoor, Chennai and is associated with various research activities at NARL, Gadanki.

Dr Krishna Murthy joined Andhra University, Visakhapatnam for research in 1957 and since then he has devoted all his time for research in Atmospheric Science. After acquiring his D.Sc from Andhra University, he took up a post doctoral Fellowship at NASA in 1965. On return, he joined the Indian space research

Organization (ISRO) in Thiruvananthapuram in 1968.

Dr Krishna Murthy has made many significant contributions in the area of ionosphere which includes ionospheric irregularities, ionospheric absorption, topside ionosphere and thermosphere dynamics. He has developed a new method to derive thermospheric wind from ionospheric data. He was also instrumental in developing indigenously the highly sophisticated satellite radio beacon phase locked receiving system for the first time in the country and made many important contributions in the field of ionospheric radio scintillations with applications to radio communications.

Dr Krishna Murthy was the first to introduce Laser probing of the atmosphere in the country and has been involved in developing the first pulsed and CW Lidar systems in the country for research on aerosols. He initiated and nurtured Aerosol and Radiation Budget studies in India. He initiated the development of a Multi wavelength Radiometer in the country for Aerosol studies which became the principal means for Aerosol investigations. Aerosol and Radiation budget studies have become a major area of scientific research in the country owing mainly to his initiative.

Another area of research which Dr. Krishna Murthy has pursued vigorously and made many important contributions to is the area of Middle Atmosphere Dynamics and Atmospheric Turbulence. He has developed new methods to derive the lower atmospheric temperature profile and to estimate the turbulence parameters in the lower atmosphere from the Radar data of wind. Dr Krishna Murthy's scientific contributions span the vast area of Atmospheric Sciences from the lowest level of Atmospheric Boundary Layer to the highest level of Magnetosphere.

He has over 200 research publications in peer reviewed scientific journals. He has served as a member of a number of National and International Scientific Committees which include, COSPAR, URSI, SCOSTEP. He has also served as a member of ADCOS of ISRO, Programme Management board of IMAP, Scientific Advisory Committee of NMRF (DOS) as well as National Steering Committees of INDOEX and CAWSES and as Chairman of IMAP and INDOEX-India Working Groups. He has also guided 12 Ph.D. students as well as 3 M.Phil students.

In recognition to his outstanding research contributions in the field of Atmospheric Science and Technology the Ministry of Earth Sciences honours Dr. B. V. Krishna Murthy with the “National Award in the field of Atmospheric Science and Technology” for the year 2018.