Keynote on

"Telecommunication, Navigation and Remote Sensing of Moon"



Dr. Vinod Kumar

<u>Dr. Vinod Kumar</u> is presently Director, Promotion Directorate at Indian National Space Promotion & Authorisation Centre (IN-SPACe), Department of Space. IN-SPACe is an autonomous body, a single window nodal agency, with its own cadre; "to permit, regulate, promote, hand-hold, monitor and supervise Space Activities of Non-Governmental Private Entities (NGPEs) in India."

He is also working as Executive Secretary, Astronautical Society of India (ASI). The society is playing an active role to promote space technology nationally & internationally, through conferences, lectures and webinars. Before joining IN-SPACe he was heading the GEO Control Dynamics Design Division and working as Deputy Project Director, Attitude and Orbit Control System, at U R Rao Satellite Centre (URSC), ISRO, Bengaluru. He is a fellow of the Institution of Engineers, India and The Institution of Electronics and Telecommunication Engineers. He joined URSC in 1997, where he has been involved with the design and development of Attitude and Orbit Control Systems of over three dozen satellites in the last nearly ~25 years. He has developed crucial technologies for satellites and a critical mirror motion compensation technique for ISRO's meteorological satellite series. He has also developed autonomy for GEO satellites which has become the backbone of ISRO's fleet of spacecraft including Mars Orbiter Mission. He has been awarded ISRO team excellence award in 2006 by His Excellency former President of India Dr. A.P.J. Abdul Kalam for in orbit management of spacecraft operations. He was again chosen for the team excellence award in 2011 for GSAT-12 spacecraft AOCS design, development and realization. Dr. Vinod is an alumnus of Indian Institute of Technology, Bombay. In his doctoral research, he developed autonomous navigation techniques for collocated geostationary satellites at a desired longitude using Indian Regional Navigation Satellites System (IRNSS/NavIC). He is a ISO 9001:2015 certified Lead Auditor from Indian Institute of Quality Management.

He has over three dozen publications in National and International reputed journals and conferences. His additional technical interests include "Missile detection, AI, Terrain navigation, Guidance, Pulsar navigation, Space reentry, Mars explorations and interplanetary missions". Before joining the URSC, he worked with the Indian Air Force, on fighter aircraft control systems and also held Faculty positions at Regional Engineering College, Haryana, India and SJPML Institute of Technology, Radaur, Haryana.