



BRIEF BIODATA – DR. UMAMAHESWARAN. R

Distinguished Scientist & Director HSFC, ISRO

Dr. Umamaheswaran R, born on May 20, 1963, completed his B-Tech in Electronics & Communication Engineering from College of Engineering, Trivandrum and Masters in Software System from BITS, Pilani and done his Ph.D in Electronics & Communication from National Institute of Technology, Tiruchirapalli. He also holds a Master's degree in Russian Language from Kerala University. His interests include launch vehicle technology, programme management, science and technology related policies. He is a domain expert in in the field of launch vehicle system electrical integration, checkout, ground station, avionics, system engineering as well as in space policy planning.

Dr Umamaheswaran is with Indian Space Research Organisation (ISRO) for over a period of nearly 35 years. He has worked in Vikram Sarabhai Space Centre of ISRO for 31 years in various capacities including the Project Director of GSLV from July, 2014 and Deputy Director of VSSC in Avionics entity from May, 2017. He was assigned to serve as Associate Scientific Secretary of ISRO at ISRO HQ, Bangalore from May to August 2018 and later elevated as Scientific Secretary, ISRO.

As Scientific Secretary of ISRO at ISRO HQ, Bangalore and Distinguished Scientist of ISRO, he was responsible for the overall Policy, Planning and Programs of ISRO. He was also leading the programme office of Technology Development and Innovation of ISRO HQ.

Dr. Umamaheswaran has assumed charge as Director of Human Space Flight Centre, Bangalore on 03rd March 2022.

He has played significant role in drafting the sectoral reforms in Space towards *Atmanirbhar Bharath* vision and also in drafting the Space Activities Bill. He was the Chair of the High Level Interim Committee in lieu of IN-SPACE functioned in ISRO/DOS to implement the space sector reforms announced by Government of India to enhance participation of private sector in space activities. In this capacity, he was instrumental in providing access to ISRO facilities for testing the space systems from private industries for their space activities, for bringing in a national registration mechanism for Indian space objects and also for launching four student satellites in PSLV.

He has immensely contributed to ISRO's international cooperation by serving as the co-chair of Joint Working Groups with many space agencies ROSCOSMOS (Russia) JAXA (Japan); ESA (Europe); NSSA (Bahrain); CRTS & CRERS (Morocco); ASAL (Algeria); CONAE (Argentina); MDAI (Kazakhstan); EgSA (Egypt). He has been part of Indian delegation to many International Astronautical Congresses. He also signed the Joint Declaration of Interest for Space Climate Observatory (SCO) at Paris in June 2019 on behalf of ISRO.

He represented India in UNCOPUOS meeting in June 2019 and led the ISRO delegation in APRSAF 2020. He has been elected as the Chair of Working Group on Long Term Sustainability of Space Activities in UNCOPUOS Scientific and

Technical Subcommittee. As LTS chair, he is working with UN member countries for bringing out international guidelines for the long-term sustainability of outer space activities.

During his tenure in VSSC, he was actively involved in the system integration, checkout and avionics of ISRO's launch vehicles viz, PSLV, GSLV & GSLV-Mk III. He has been the Chief Designer (Integration) of major subassemblies including Equipment Bay of ISRO's operational Launch vehicles. One of his significant contributions was the design of the mission critical circuits residing in the launch vehicle including the entire pyro chains.

He has successfully accomplished three successive GSLV missions as its Mission Director. He was also the Vehicle Director for the remarkably successful GSLV D5/GSAT-14 Mission with the indigenous cryo stage. He led the Operational Launch Vehicle Team of Avionics Production, Hardware Production, Structural analysis and Control guidance to enable & successfully deliver the products for the increased frequency of PSLV, GSLV and GSLV Mk III missions.

As Deputy Director of Avionics Entity, VSSC he was entrusted with the task of leading a team of young Engineers, for the development of miniaturized avionics. He also spearheaded the induction of Electro Mechanical Actuation Systems in Launch Vehicle control systems.

He is also currently Member of Board of Trustees of International Academy of Astronautics (IAA) and member of IN-SPACe Board.

Dr. Umamaheswaran is a member of several international and national bodies of engineering and science, including Member for Section 2 on Engineering Sciences of IAA & Member of the Committee on Space Traffic Management of IAA. Fellow of Aeronautical Society of India (AeSI) and Astronautical Society of India (ASI), Life Member of Systems Society of India (SSI) and Indian Society for Advancement of Materials and Process Engineering (ISAMPE). He was the National Vice President for Indian Society of Systems, Science and Engineering (ISSE) and President of ISSE Bangalore Chapter.

Dr. Umamaheswaran R is chair of 'A Programme Review and Advisory Committee' (PRAC) in Centre for Nano Science and Engineering (CeNSE), IISc and Co-Chair of Joint Policy Committee of ISRO-IIT –B, Space Technology Cell.

Dr. Umamaheswaran has won several awards including ISRO Individual Merit Award-2013, ISRO Team Award-2006 (PSLV), ISRO Team Award-2014 (GSLV) and ISRO Outstanding Achievement Award 2018. He also received the ASI-ISRO Award for the year 2016. He is recipient of Honoris Causa from the Sathyabama Institute of Science and Technology, Chennai (2019). He has received Dr. Biren Roy Space Science and Design Award from Aeronautical Society of India (2019).
