



# Sri Sathya Sai Institute of Higher Learning

## Vistas in Space Science

on Monday, 03 October 2022 at Auditorium, Prasanthi Nilayam Campus

**Dr. Seshagiri Rao** is a former Distinguished Scientist and former Associate Director of the Satish Dhawan Space Centre (SDSC), Indian Space Research Organisation (ISRO). He worked in ISRO for more than 39 years in various capacities. In addition to that, he also served in ISRO as Prof. Satish Dhawan for three years. He is instrumental in setting up state of the art Real Time Systems and computer networks for flight safety at SDSC SHAR.

During his tenure spanning almost four decades, Dr. Seshagiri Rao has also worked as the Deputy Director, Range Operations (RO), Project Director, Multi-Object Tracking Radar (MOTR), and Deputy Director, Vehicle Assembly and Static Test (VAST) Facility. He also served as Controller of SDSC SHAR and was the Chairman, Standing Review committee for Software development. He has greatly contributed to the Satellite recovery experiment, Chandrayan-1, Mangalyaan, and many other missions. ISRO's prestigious Multi-Object Tracking Radar (MOTR) was designed, developed, and commissioned under his guidance as Project Director.

He is a member of several professional bodies including a Life member & Executive member of the Astronautical Society of India (ASI), a Fellow of Institution Electronics and Telecommunication Engineers (IETE), and a Fellow of the Institution of Engineers (India) IEI to name a few. He has published over 60 papers in national and international journals and conferences and has won several awards and recognitions including the ASI Space Gold Medal (2000), the ISRO Merit Award (2006), and the ISRO Performance Excellence Award (2011).



**Mrs. Nandini Harinath** is a Senior Scientist working in the Indian Space Research Organization (ISRO) for the past 27 years. She is presently the Deputy Director, Spacecraft Operations, at ISRO, responsible for the tracking and control of 29 low earth orbiting satellites and their daily operations. Nandini has worked on over 20 satellite missions in key designations to date and is well known for her contribution as the Project Manager and Mission Design Deputy Operations Director for the Mars Orbit Mission (MOM), popularly known by the name of the Mangalyaan mission. She is currently planning and executing Science payload operations in the Martian orbit.

She was the Mission Director for Risat 2B constellation of satellites and Resources at-2A satellite and was responsible for end-to-end operationalization of the satellites, and was the Mission Systems lead for NASA- ISRO collaboration satellite called NISAR -world's first dual-frequency RADAR imaging satellite with L-band SAR (from NASA) and S-band SAR to be launched by ISRO in 2023.

Nandini has several Publications related to the above work and has won several awards over the years including the ASI (Astronautical Society of India) Space Gold Medal (2019) and the 'India Today Woman in Science Award (2015). She is married to Sri Harinath Sharma and is a mother to two lovely daughters.



**Dr. Umamaheswaran** is a Distinguished Scientist with the Indian Space Research Organisation (ISRO). During his career span of over 35 years, he has worked in Vikram Sarabhai Space Centre of ISRO for 31 years in various capacities including the Project Director of GSLV, and Deputy Director of VSSC in the Avionics entity. 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. 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.

Dr. Umamaheswaran has also served as the Associate Scientific Secretary of ISRO at ISRO HQ, Bangalore, and was later elevated to Scientific Secretary, ISRO. Currently, he is the Director of the Human Space Flight Centre (HSFC), Bangalore. He has immensely contributed to ISRO's international cooperation by serving as the co-chair of Joint Working Groups with many international space agencies. 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) to name a few.

Dr. Umamaheswaran has won several awards including the ISRO Individual Merit Award (2013), ISRO Outstanding Achievement Award (2018), the ASI-ISRO Award (2016), and the Dr. Biren Roy Space Science and Design Award from the Aeronautical Society of India (2019).



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