

OCT  
**9**

## **4th National Conference on Multidisciplinary Design, Analysis and Optimization**



### **BATTERIES FOR SPACE : DESIGN AND CHALLENGES**

**Dr. S. A. ILANGO VAN**

**Indian Space Research Organization**

**6.00PM**

Dr. Ilangovan is the Deputy Director of Propellants, Polymers, Chemicals & Materials Entity at VSSC/ISRO. He is a graduate in Chemistry from the University of Madras and a Ph.D (Battery Electrochemistry) from Indian Institute of Science, Bengaluru. He has achieved Design, Development, Qualification and Supply of sealed Nickel-Cadmium and Nickel-Hydrogen Systems, Advanced Lithium cells, Supercapacitors & Supercapattery for Launch Vehicles and Spacecrafts applications. He has also developed Polyurethane foam insulation & Polyimide propellant feed lines for Liquid H<sub>2</sub> & Liquid O<sub>2</sub> Cryo stages. He has been involved in developing thermal protection systems (Cork-Phenolic, Silicone) for space applications. He has also demonstrated Electric vehicles using Battery + Supercapacitor + Solar. His areas of interest include Nano Science and Technology for Materials and Energy Systems areas, Attaining self-reliance in energy needs of the nation - Electric Vehicles.

He has several publications, patents and serves in several technical committees. He received the Astronautical Society of India - GOLD MEDAL FOR THE YEAR 2005 for meritorious contribution to space technology development and received the INSAT-4CR Team award - ISRO in 2007