Title: Communication Networks

Speaker: Smt. Tessy Thomas, Scientist, Advanced Systems Laboratory, DRDO.

Abstract: India is a strategically positioned country and there is always a need for a seamless communication network for the countries strategic requirements. These networks differ from the usual communication networks, in terms of security, redundancy, Operational strategies etc. They act as force multipliers in gathering of multiple information gathering and data fusion, auto Updation of database, analysis of threats and making real time decisions by use of advanced algorithms and technologies. The information are obtained from terrestrial networks and also the satellite networks, through human interfaces, which are transferred to the next communication layer through secured gateways. Strategic Communication networks are extensively employed in real time operations like in battlefield management, where real time information processing and decision making are the primary requirements.

About The Speaker: Ms Tessy Thomas Joined IAT, Pune, a unit of DRDO as a faculty member in Guided Missiles in the year 1987, after completing her ME degree in Guided Missiles. She joined Inertial Navigation group as Scientist ‘B’ in 1988 in Hyderabad. She has been associated with Agni Programme right from its developmental flights. She has designed the guidance scheme for long range missile systems which is used in all Agni missiles. An energy management guidance scheme was designed and developed for the first time in the country for an all – solid propelled long range systems for which she was conferred with Agni self reliance award in the year 2001.

In her work spanning 24 years, she has contributed in various fields such as Guidance, Control, Inertial Navigation, Trajectory Simulation and Mission Design. She completed her MBA degree in Operations Research in 1998. She is Associate Project Director (Mission) for Agni-I, II & III systems. Currently she is leading a major project A4 system, for a state-of-art system with many new technologies for the first-time. She is also Project Director (Mission) for the long range A5 system and Technology Director for Mission Design and System Analysis Group of Advanced systems Laboratory. She is recipient of a number of awards like

1. DRDO Agni Award for Excellence in Self-Reliance (2001).
2. DRDO Award for Path-breaking Research / Outstanding Technology Development (2007).
5. DRDO Scientist of the Year (2008).
6. Dr. Kalpana Chawla Memorial Lecture honour on 16 Jan 2009 by Aeronautical society of India.
7. India Today Woman of the Year (2009).
8. Suman Sharma Award (2009) by The Institution of Engineers (India) National Design and Research Forum.

She is a life member of Astronautical Society of India (ASI), Aeronautical Society of India (AeSI), Indian National Society for Aerospace & Related Mechanisms (INSARM), Indian Society for Advancement of Materials and Process Engineering (ISAMPE).