K.S.INSTITUTE OF TECHNOLOGY, BANGALORE – 560109
DEPARTMENT OF
COMPUTER & COMMUNICATION ENGINEERING

REPORT
On
Industrial Visit to
"TATA Advanced systems, Bangalore"

Date of visit: 28th Nov 2024

Venue: TATA Advanced systems , Electronic city Bangalore.

TATA Advanced systems, Bangalore

Tata Advanced Systems Limited (TASL), a wholly-owned subsidiary of Tata Sons, is the strategic Aerospace and Defense arm of the TATA Group. TASL is both an operating & a holding company.

Tata A&D offers a full range of integrated solutions across:

- **Aerostructures & Aero-Engines**
- **Airborne Platforms & Systems**
- **Defence & Security**
- **Land Mobility.**

The exhibits that were shown to students are given below.

1. Akash Air Force Launcher (AAFL) is a multi-technology Weapon Launch Platform for Air Defence Missiles, jointly developed with DRDO. AAFL comprises a self-powered and fully-automated Electro-Mechanical Launching System mounted on a trailer and towed by a prime-mover. It is a fully ruggedised all weather day / night system capable of operating in

harsh environmental and terrain conditions.

Salient Features

- High Positional & Tracking Accuracy
- Fast coming into and out of Action
- Fully Automatic Checkout & Auto Launch of Missiles
- Remote Controlled Tracking of Target & Launching of Missile
- Electro-Mechanical Outrigger Jacks for Stabilisation and Auto-Leveling of Launcher
- Battery Assisted Hand-cranking & Manual Operation

Fig - AKASH Air force launcher

2. **EMI/EMC Testing**

Tata Advanced Systems has a complete facility for EMI EMC Product Testing is accredited by NABL and certified by Telecommunication Engineering Centre(TEC) and a designated CAB in India for Indian and Global firms to test their products.

Fig - EMC/EMI testing room

Unique Features of Tata Advanced Systems EMI Facility:

- Fully Automated EMI / EMC Test Facility equipped with highly sophisticated instruments to

test complete System / Vehicle and Sub-system level electronic products in various fields such as Military, Automotive, Industrial, Aerospace, Information Technology and Medical

- The first EMI / EMC Laboratory of its kind to have almost all the Test methods as per MIL Standard 461 C/D/E/F/G, IEEE, Automotive, DO160, MIL 704, Commercial, Railways (RDSO), Telcom and Product Standards accredited by M/s National Accreditation Board for Testing and Calibration Laboratories (NABL)

- Certified by TEC as a designated CAB

- The Centre for Military Airworthiness & Certification (CEMILAC) Approved Test House

- A strong dedicated team of experts for assistance and guidance on variety of tests.

3. Surface Surveillance Radar (SSR)

In TASL's Noida facility, TASL has been undertaking the manufacturing of a complete military radar, India's first such assembly in the private sector. This is also one of India's first Buy & Make(Indian) category projects within the Defense Acquisition Procedure.

The Surface Surveillance Radar (SSR) with India specific modification is based on Terma's Scanter 6002 radar. The Radar is a X-Band, 2D, fully Coherent, Pulse Compression Radar

Fig - RADAR unit

based on Solid State Transmitter technology with digital software-defined functionality and

optimised to provide a high level of situational awareness on Naval platforms in all weather conditions. The Radar system excels at small target detections in high sea states. SSR seamlessly integrates with legacy and state of the art sensors & weapons, operates in a networked environment allowing the operator to detect, analyse and pass on the target data to appropriate countermeasure.

Objectives / key highlights:

- **To provide students with an exposure to the real life applications of embedded systems.**

- **To enable industry interaction and explore the possibilities and opportunities in the field of defense and aerospace.**

Participant details:
- No. of participants in total:59.
- Faculty – Shashikala H. C , Asst Professor
      Shilpa M. , Asst Professor.

Photos:

Attachments:

1. Communication with TATA Advanced systems.
2. Resource person Profile
3. Evaluation and Feedback.

CO/PO&PSO mapping -CCE

CO/PO & PSO	PO1	P02	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Event (Industrial Visit)	-	02	-	-	02	02	-	-	02	02	-	02	02	02

PSO1: To understand and apply the concepts to design and develop solutions in computer and communication Engineering.

PSO2: To use the inculcated experiential learning for research and develop inventive solutions for social benefit while ensuring security with moral values and ethics.

Shilpa M.

Event Coordinator

Dr. Chanda V. Reddy

Head - CCE

Dr. Dilip Kumar K

Principal, KSIT