



## **Bangalore Field Visit Report**

In the SDM Degree College (Autonomous), Ujire from the Department of Physics and Mathematics conducted 2 days of Field visit to the scientific centers of Bangalore. And here is the report of the activities conducted during the visit.

### **Preamble**

A Field visit to ISRO is an exciting opportunity to explore the fascinating world of space exploration and learn about cutting edge technologies being developed in this prestigious Research Institution of the country. Students gain deeper understanding of contribution of ISRO to space to India scientific and technological progress.

### **Objective**

- Gain firsthand knowledge about working environment of leading space research organization
- Understand the application of space technology in various fields such communication, Navigation, and remote sensing
- Explore career opportunities, discover potential path related to space science
- Observe how scientist approach complex challenges and develop solution

### **Outcome**

- Students gain a deeper appreciation for challenges and rewards of space exploration
- The visit inspire students to perceive career in space science or related fields
- Observing the work of scientist and engineers at ISRO helps to them to develop critical thinking and problem solving skills

### **Day 1 Overview**

#### **1. Visit to Visvesvaraya Industrial & Technological Museum**

##### **Activities**

- **3D Show**  
The advanced optics of the Digital Theatre which screens movies in 3D is a riveting experience; this is a major crowd puller in the 'Fun Science' gallery.
- **Science on a Sphere**



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A fantastic series of images are created by planetary data of high-resolution satellite images and videos, animated images of atmospheric storms, fluctuations in ocean currents, effects of climate change and other complex environmental processes.

- Engine hall
- Space Technology Gallery
- Science Park
- ElectroTechnic Gallery
- Biotechnology Gallery
- BEL-Hall of Electronics
- A full-scale model of Chandrayaan-3
- Wright Brothers' Aeroplane model



Gallery





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**Day 2**

1. Visit to the MOX ISTRAC at Peenya, Bangalore.

Dr. B Sankar Madaswamy Sci./Engineer-SF Manager, HRDD Explained to us about the different centers of ISRO and their functionalities and explained to us about the different types of satellites for different space missions.

Then he guided us to Mission control room and showed us real time parameters of Aditya-L1 and explained to us about the future missions of Gagan Yaan and also mentioned about different side missions such as controlled re-entry experiment of aged satellite.

2. Visit to the Indian Deep Space Network Centre (IDSN) at Byalalu, Bangalore

- i.) 32m Deep Space Antenna

Here They showed us how they get the information or data from the space satellites, this 32m antenna can be moved in the 6 direction and it was earlier used to communicate in the Chandrayan 1 and now it's working for Mangalyaan.

- ii.) Indian Space Science Data Centre (ISSDC)

Data Centre is the place where all the data of all the previous and ongoing missions are stored, there they explained about the importances of the Data scientist and data security to ensure the accuracy of the data and of having multiple copies of the same data and they explained about the Chandrayan missions.

- iii.) Indian Navigation Centre (INC)

They explained about how the navigation system works, and about India developing our own navigation system called NAVIC. They explained 32m Deep Space Antenna at ISDC, Bangalore  
Visvesvaraya Industrial & Technological Museum







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भारत सरकार  
अंतरिक्ष विभाग

**इसरो दूरमिति अनुवर्तन तथा  
आदेश संचारजाल (इस्ट्रेक)**

प्लॉट सं. 12 व 13, 3 मेन, 2 फेज़  
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GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE

**ISRO TELEMTRY TRACKING  
AND**

**COMMAND NETWORK (ISTRAC)**

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**B. Sankar Madaswamy**  
Manager, HRDD

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E-Mail: s\_madaswamy@istrac.gov.in

To,  
**The Principal**  
SDM College,  
Ujire.

February 21<sup>st</sup>, 2024

Sir,

**Sub: Sri Dharmasthala Manjunatheshwara College (Autonomous) Ujire,**  
**Karnataka Students and Faculty members visited Mission Operation**  
**Complex(MOX) and Indian Deep Space Network(IDSN), ISTRAC,**  
**Bangalore on 02.02.2024(Friday).**

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Forty-Five (45) students and Five (05) faculties on 02.02.2024 from 08:30 A.M to 05:00 P.M visited to ISTRAC facilities MOX and IDSN at the outset of Educational tour to ISRO. During the visit lecture was delivered to students on overview of Indian space programme and achievements of ISRO last five decades. Students were taken to technical facilities of ISTRAC. They were very active and knowledgeable and had interactive session with our Scientist. Faculties were excellent. Students are well disciplined and brilliant. Faculties were taken the students very Well with teal leader Shri.S N Kakathkar and team Shri. Ganesh Nayak, Smt. Apeksha Jain, Smt. Namratha Jain & Smt. Yashodhara Kumbara. They were present the entire day with us.

**(B.SANKAR MADASWAMY)**

बी सङ्कर मादस्वामी/B SANKAR MADASWAMY

केमिस्ट/प्रसिक्क-एम्प्लॉय/Scientist/Engineer-SF

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भारत सरकार, अंतरिक्ष विभाग/Govt. of India/Dept. of Space

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भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) INDIAN SPACE RESEARCH ORGANISATION (ISRO)