



**GOVERNMENT OF INDIA  
MINISTRY OF MINES  
GEOLOGICAL SURVEY OF INDIA TRAINING INSTITUTE  
HYDERABAD**



Scheme: ITEC			Proposed Year: 2024-25	
Course Name	Duration	Maximum Seats	Minimum Seats	Stream
Remote Sensing and Digital Image Processing for Geoscientists	27.11.2024 to 17.12.2024	20	10	Engineering and Technology

**COURSE DETAILS**

Course Name	Remote Sensing and Digital Image Processing for Geoscientists
Start Date	27.11.2024
End Date	17.12.2024
Aim & Objective	To enable Geoscientists and Technicians to use remote sensing and image processing techniques as a tool to improve the understanding of geological and geographic phenomena and to explore earth resources.
Mode of Evaluation	Project Work and Presentations
Education Qualification	Graduation in Earth Sciences or Related Technical Courses (Geology, Geophysics, Geography, Environmental Science etc.)
Work & Experience	5 YEARS
Target Group	Scientists, Teachers and Technicians etc.

**COURSE OVERVIEW**

The course on Remote Sensing and Digital Image Processing (RS & DIP) is aimed to equip the trainees with the latest trends in remote sensing, its application in various fields and interpretation of different satellite imageries for geoscientific studies. The course includes series of lectures, demonstration and practical exercises on various techniques of RS & DIP viz concept of remote sensing, aerial photograph & interpretation concept, Digital image pre-processing techniques enhancement of satellite imagery, image correction, classification, change detection, thermal remote sensing and interpretation of satellite data etc, for the identification of potential areas of interest

The course includes, project work by individual trainees which will help in enabling the trainees to develop their skills in processing and interpretation of satellite data independently and to provide high level of confidence to trainee for independently carrying out assignments in the related fields in his/her country. The trainees will be encouraged to carry out project on the digital data pertaining to their area of interest.

GSITI has conducted 12 ITEC courses in Remote Sensing & Digital Image Processing from 2009 to 2023 and total 167 participants from 55 different countries were benefitted.

## **COURSE CONTENT**

- ❖ Fundamental of Remote Sensing.
- ❖ Digital Image Processing and enhancement techniques.
- ❖ Techniques of aerial photo interpretation.
- ❖ Principles of satellite image interpretation.
- ❖ Digital image classification techniques..
- ❖ Change detection studies.
- ❖ Introduction to Thermal Remote Sensing.
- ❖ DEM derivative map preparations.
- ❖ Thematic map composition.
- ❖ Visit to Scientific organizations and Cultural Heritage sites.
- ❖ Project work.
- ❖ Evaluation: Presentation by the participants.

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