



**Value added Certificate Course
on
GEOINFORMATICS**

**8th December to 22nd December 2021
(Blended Mode)**

P.G. Department of Geography, Utkal University, Vani Vihar, Bhubaneswar-751004

Time: 11.00 PM- 3.30 PM

Course Objective:

The course involves 15 days of both lecturer mode and hand on (practical) mode for better understanding and implementation of computer aided cartography with Geographical Information System (GIS), Remote Sensing (RS) and Global Positioning System (GPS) for strengthening decision making challenges.

Learning Outcomes:

On completion of the course, participants are able to:

- Identify and explain principles, concepts, methods and techniques relevant for geographic information processing with Geographical Information System (GIS) & Remote Sensing (RS).
- Know various elements of cartography and types of data used for carrying out computer aided cartography in GIS and ways to capture them with the help of remote sensing.
- Understand editing, management, manipulation and analysis of real-world geographical features.
- Understand the principles of remote sensing and enhancement of remote sensed data.
- Understand the concepts related to Global Positioning System (GPS) and its practical usage.
- Create and export map with an aim to plan better and smarter.

Course Syllabus:

These following course modules contains hands on practical sessions simultaneously.

Module 1	GIS Introduction, Definition, Concepts, Components
Module 2	Components of GIS - Software and Tools - Input, Modeling, Storage, Editing, Management, Manipulation, Analysis, Presentation, Cartography, Layout Designing, Map Elements, Output, Exporting
Module 3	Remote Sensing: FCC Georeferencing, Image Enhancement, Band Rationing, DIP, Classification, Image Enhancement, Band Rationing, DIP, Image classification
Module 4	Data, Quality, Error, Structure, Database Design, Map Lay Out Designing and Export
Module 5	GPS Concepts & Applications
Module 6	Geoinformatics Applications

**P. G. Department of Geography
Utkal University, Bhubaneswar, Odisha
India-751004**

Contact:

Head, Department of Geography, Utkal University,
Vani Vihar, BBSR-04, Email- kcrath65@gmail.com