Certificate Course on Basic Digital Mapping Technique

Course Code: SLC-01

(Duration: 30 Hours)

Student learning centre, IQAC, St. Xavier's College (Autonomous) Ranchi organizing a -

Certificate Course on Basic Digital Mapping Technique

Commencement of Classes- From 06th January 2025

Remote Sensing and GIS Lab-01, Beside Room no-57

Remote Sensing and GIS Lab-02, Beside Room no-63

Course Coordinator: Dr. Sandeep Chandra, Dept of Geography, SXC
Course Director: Dr. Rajeev Ranjan Shrivastava, Dept of Geography, SXC
Convener: Dr. Shiv Kumar, IQAC, St. Xavier's College (Autonomous) Ranchi
Patron: Shri Animesh Roy, HOD, Dept of Geography, SXC
No. of seats: 25
Course eligibility: 10+2 (intermediate)/ UG/PG (Geography, History, Economic, Political Science, Sociology, Botany, Zoology, Geology)
Requirement: Basic understanding of Computer
Course Fee: 3000/-
Commencement of class: 6th Jan 2025

Course Registration link- google form

About the course:

This training aimed to impart a basic knowledge of digital mapping techniques. Students will develop skills in using computer for mapping and spatial data presentation. Spatial data are widely used by planners, economists, political analysist such as electoral analysis, Biologist in mapping plant and animal distribution, geologist in geological mapping, and so on. The course is designed to introduce basic concepts of cartography as well as develop the understanding of digital map making techniques among the students. Department of Geography, St. Xavier's College have state of the art infrastructure which includes 2 Remote sensing and GIS lab having about 80 computers, high speed internet connection through LAN and Wifi, in-house NAS/Cloud space, Digital display board etc. GIS Lab have licenses of ERDAS Imagine, ArcGIS, Geomedia software. We encourage students to use Free and open source software such as QGIS, ILWIS etc.

Learning Outcomes:

After the completion of course, the students will have ability to:

1. Have sound knowledge regarding the classification and elements of maps.
2. Have proper utilization of maps for the development.
3. Appreciate the preparation of various thematic maps with the application of various techniques.

Course Content:

Sl no	Topic	Hours
	Theoretical Session (10 hrs)	
1.	Maps – Classification and Types	2 hrs
2.	Thematic Mapping Techniques – Properties, Uses and Limitations Elements of map,	2 hrs
3.	Spatial and non-Spatial data; Point, Line and Areal Data	2 hrs
4.	Coordinates system	2 hrs
5.	Principles of Map Design	2 hrs
	Practical Session (20 hrs)	
6.	Introduction of GIS software- QGIS	4 hrs
7.	Spatial data handling, creation, editing	4 hrs
8.	Joining of spatial and non spatial data	4 hrs
9.	Spatial data browsing and downloading	4 hrs
10.	Creating thematic maps, Layout preparation	4 hrs