

Short Course on GI Science and Modelling

25 September to 13 October 2023

Proposed Course Lecture Topics

- Overview of GIS
- Use and users of GI (2)
- Geographic Information & Spatial Data types (4)
- Data Processing System
- Spatial Referencing System
- Data Entry and Preparation
- Database Management System and spatial data bases
- Basic Spatial Data Analysis
- Advance Spatial Network Analysis
- Data Quality, Metadata and Policy
- Data Visualization
- Overview of RS and GIS Applications

Proposed Practical

- Introduction to Arc Catalog
- Introduction to ArcMap
- Geographical Phenomena and Computer Representations
- Spatial referencing
- Structuring Data, Data entry - Editing, digitization and Topological editing
- Tabular data creation and basic queries
- Vector Analysis
- Raster Analysis
- Network Analysis
- Spatial Interpolation - Point Data Transformations
- Spatial Data Visualization

Note: There will be three (max) lecture sessions in a day followed by one practical/hand-on session covered in the day.