

## GYP 510: Applications of GIS & GNSS

### Course learning outcomes:

CO1. Define data structure in GIS

CO2. Analyze geographical change analysis using geo processing tool

CO3. Production of thematic maps in Arc GIS

CO4. Collecting points and tracking the routes in GNSS.

| Exercise No. | Title of the Exercise (Total 52 Hrs.)                    |
|--------------|----------------------------------------------------------|
| 1            | GIS Interpretation Procedure.                            |
| 2            | Measurement of Scales Nominal, Ordinal and Ratio.        |
| 3            | Extraction of Geographical features through topo sheets. |
| 4            | Vector Data Model.                                       |
| 5            | Raster Data Model.                                       |
| 6            | Cartesian coordinates System.                            |
| 7            | Spagathi Mode.l                                          |
| 8            | TIN and Buffering.                                       |
| 9            | Over lay analysis.                                       |
| 10           | Rainfall Variability and Intensity Map.                  |
| 11           | Model Creation.                                          |
| 12           | Introduction of GNSS.                                    |
| 13           | Finding latitude, Longitude and altitude.                |
| 14           | Tracking.                                                |
| 15           | Routing in GNSS.                                         |

### References:

1. Peter A. Burrough and Rachael A. McDonnell (1998): Principles of Geographic Information systems, Oxford University Press, New York.
2. Aronoff S. (1989): Geographic Information System, A Management Perspective, WDL Publications, Ottawa, Canada
3. Ian Heywood, Sarah Cornelius, Steve Carver (2003): An Introduction to Geographic Information System, Pearson Education Ltd., India
4. Chrisman N.R. (1997): Exploring Geographic Information System, Wiley, New York.
5. [www.gisdevelopment.net/tutorials/human008.html](http://www.gisdevelopment.net/tutorials/human008.html)
6. [www.gislounge.com/remotesensing.html](http://www.gislounge.com/remotesensing.html).