MANGALORE UNIVERSITY

DEPARTMENT OF MARINE GEOLOGY

MSc GEOINFORMATICS

GIP 506: DIGITAL IMAGE PROCESSING AND CARTOGRAPHY (LAB S)

Course Outcome:

CO1: Digital Image processing involves the manipulation and interpretation of digital images acquired by satellites, with the help of a computer. They will be capable of handling various images processing software's for analysing the satellite data.

Digital Image Processing Lab

ERDAS Imagine

- Geometric Correction
- Radiometric correction
- Histogram construction for digital data
- Outputs of linear and non-linear stretch
- 5.Filtered outputs
- Ratio images
- Change detection analysis
- Image classification based on digital values
- Unsupervised classification
- 10. Supervised classification.

CARTOGRAPHY

Topographic Sheets: Identification of Symbols and Interpretation of Central Themes. Retrieval Secondary Data**.**

Thematic Mapping: Geomorphology, Slope, Elevation, Stream Network, Drainage Patterns, Resources and Bathymetry.

Population Density: Grid pattern distribution of population, Dot mapping, Multi Dot mapping and Settlement Mapping.

Representation of Thematic Data: Application of Histograms, Pie Charts, Wind Roses, Ray Diagrams**.** Contour Map construction of Pressure Gradient, Rainfall, Temperature, Wind velocity.Choroschematic mapping.

Multi-dated Thematic Mapping: Shoreline Changes, Forest Cover Changes, Population Diffusion/Urban Growth mapping.