

Certificate Course on Digital Image Processing

COURSE LAYOUT

Module 1:

- 1. What is remote sensing, type of sensor**
- 2. Type of satellite and applications of different satellites (earth observation satellites) (India satellites)**
- 3. Introduction of Electromagnetic radiation.**
- 4. Satellite data resolution and its types**
- 5. Remote sensing Platform.**
- 6. What is earth orbits and types.**
- 7. Practice session with assignment**

Module 2:

- 8. Downloading satellite images & Understanding Satellite image.**
- 9. Introduction of LULC.**
- 10. Processing of image in GIS, Image Enhancement, removing black pixels**
- 11. Understanding methods of Land use and when to use which method.**
- 12. Layer Stacking.**
- 13. Practice session with assignment**

Module 3:

- 14. Supervised Classification**
- 15. Unsupervised Classification**
- 16. Combined Classification**
- 17. Practice session with assignment**

Module 4:

- 18. Error pixel correction and new class Generation**
- 19. Result from Land use**
 - a. Area Calculation of Each class**
 - b. Performing change Detection of time series land use**
 - c. Making Change Detection Matrix in Excel from Land Use Data**
- 20. Miscellaneous Task and Assignment's.**
- 21. Practice session with assignment**