

Advanced Remote Sensing

Course Objectives

This is an advanced course on theories and application of remote sensing techniques for image processing. This course should provide students with knowledge of advanced digital image processing techniques. Each student who successfully completes this course will have developed the skill to process imageries (compile from different sources, rectify and classify imageries), create sensitivity layers, import them into GIS to modeling with RS data.

TOPICS COVERED

- ✓ Review of Digital Image Processing
- ✓ Image Quality Assessment and Statistical Evaluation
- ✓ Feature Space Plots
- ✓ Advanced classification techniques including multiple functions in the modeler and use of matrix and criteria functions
- ✓ Application and testing of Knowledge Engineer
- ✓ Merging different types of remotely sensed data for effective visual display
- ✓ Explore various Vegetation Indices
- ✓ Change Detection Analysis
- ✓ Ground truthing with GPS and handheld spectrometer
- ✓ Customizing Erdas Imagine Interface including creating and editing Imagine scripts
- ✓ GIS Integration

