

Remote Sensing Laboratory
Lab Assignment # 5
Image enhancement

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1. OBJECTIVE

The main objective of this exercise is to familiarize with image enhancement, histogram stretching and LUT (Look Up Table)

2. DATA PROVIDED

The data used in this session is an image from Landsat 7 ETM+ sensor. Spatially it covers the area around Pathumthani province of Thailand (Upper Left Coordinates are 100° 26' 13.88"E+14° 3' 14.38" N). The image contains six bands of Landsat having spatial resolution of 30 m (excluding the panchromatic and thermal bands having different resolution).

3. METHODOLOGY

1. Start image processing software ENVI 4.2
2. Open image file and select RGB color as True color
3. Compare characteristics of image enhancement, histogram stretching and LUT by goto menu **Enhance=> interactive stretching** .. Then you can see histogram
4. Following methods of image enhancement through histogram stretching;
 - Linear
 - Piecewise linear
 - Gaussian
 - Equalization
 - Square Root
 - Arbitrary &
 - User Defined Lookup Table

4. Result

5. Discussions and Conclusion:

6. Reference: