Digital Image Analysis GEPL 4500/5500

March 21, 2005

Homework 3, Due Monday March 28, 2005

For this homework you will answer the following questions, and email the answers to me at jcoss@utnet.utoledo.edu

Within supervised image classification there are several ways to define the classes, they are minimum distance, maximum likelihood, and parallelepiped.

1. Define minimum distance classification you may use illustrations to demonstrate your description.

2. Define parallelepiped classification and again you may use illustrations.

3. Define the method maximum likelihood classification, using illustrations of the process if this will assist you in explaining.

4. Explain why you might choose one method over the others, for all of the methods. This means you will tell what advantages and or disadvantages each method has and in what situation you might choose each method.

5. Define and explain a Principal Components Analysis(PCA). What is done and what is used to measure the impact of each band.