

Lab 3 Image Processing**Name:**

Upload the following files to the instructor:

(3) "Your name_bands_2-5_Scatterplot"

(4) "Your name_subset_band5_geotiff"

(5) "Your name_rotate 90_ENVI.img" with ENVI .hdr file (two files)

Question 1: (Provide correlation values to the nearest two decimal places).

A. What is the correlation between OLI bands 3 (green) and 2 (blue)?

B. What is the correlation between OLI bands 4 (red) and 2 (blue)?

C. What two bands have the least correlation (most difference spectrally)?

D. What two bands have the highest correlation (most similar spectrally)?

Question 2: Compare the visual gray tone of the sand dunes in the northeast and east of the band 2 (blue) and the three reflected infrared bands (5-7). Does this match the values in the correlation table? Explain.

Question 3: How does the scatter plot of bands 2 and 3 and the plot of bands 2 and 5 compare to the correlation table values?

Question 4: A. Describe the change in visual appearance of the red & white construction cranes when the Sharpen slider is set to 100 and to the far left of the slider (beyond the no change vertical line on the slider).

B. What level of sharpening provides an image that you find most informative (answer with the number to the right of the slider).

Question 5: What is the difference in image appearance when a low pass filter with a 3 x 3 kernel is applied compared with a low pass filter with a 13 x 13 kernel?