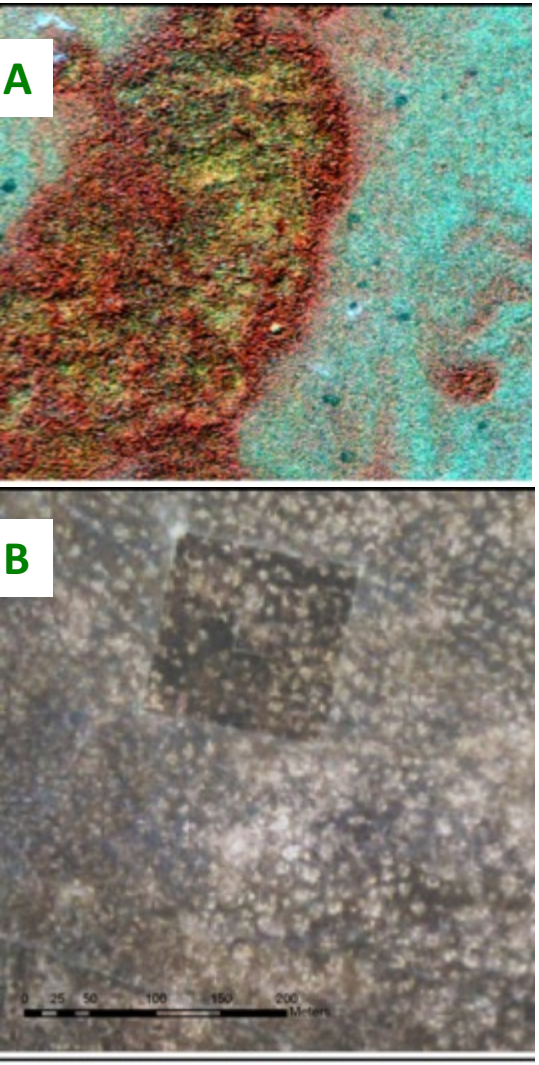
Take **GEOG 495 Special Topic in Remote Sensing: Image Processing** in Spring 2017 **(No Pre-reqs!!) 1 to 4 Credit Hours**

Lecture: BGB 405, T R 11:10 – 12:25pm, Lab 001/002: BGB 405, W 12:20 pm- 2:15pm/2:30 – 4:25 pm



Forbes has ranked Cartographers and Photogrammetrists as the #15 fastest growing jobs of 20 in the USA, particularly with the need to process Drone data. In Image Processing you will develop a very marketable skill concerned with the details and application of computer algorithms for detecting patterns in ground, airborne, and satellite imagery and the affect of different process including climate change.

For example, you will develop the processing skills to use use the spectral properties of satellite images to find ancient Mayan temples as seen here in yellow (A) or use an understanding of the development of image convolution filters to detect edges, round, and linear features to Detect Giant Kangaroo Rat Burrows and thus Count the population of this endangered species (B). Additionally, these same skills have been used to count trees in forests, red & white blood cells in blood samples, and detect sliver thin cracks in bones in X-rays.

Additionally, you will learn to plan, collect, and process data from a **Drone campaign!!**

Undergraduate and graduate students in engineering, agriculture, history, archeology, geography, anthropology, earth and planetary sciences, ecology, other related fields are very welcome. **In the last 3 years the mean grade in Geography Remote Sensing courses has been an A-.** Email the instructor (washingtonra@utk.edu) for help enrolling or with any questions.