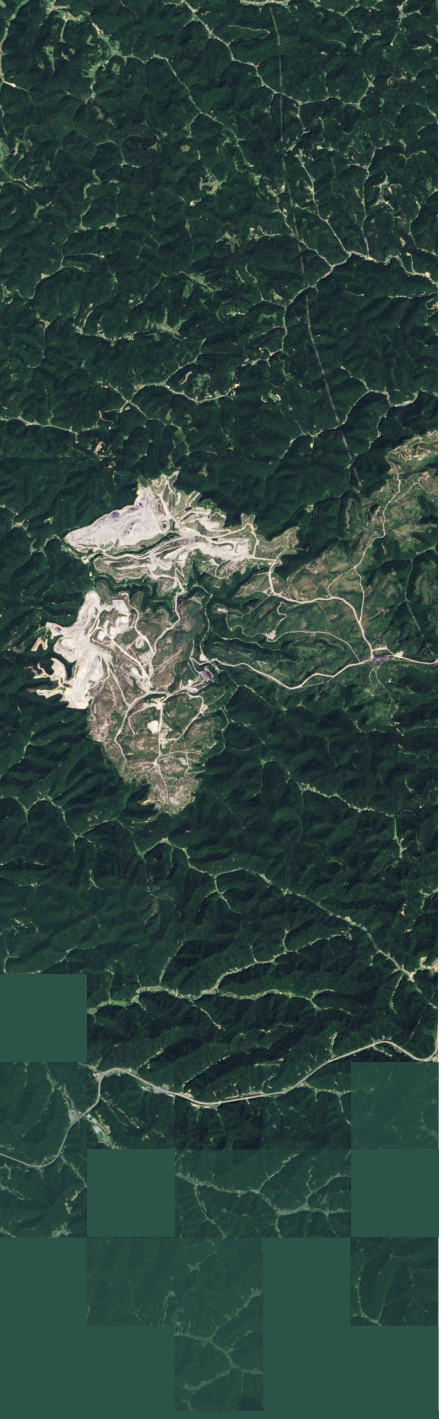

National Aeronautics and Space Administration

Advanced Webinar: Change Detection for Land Cover Mapping

Fridays, September 28 - October 5, 2018

10:00-12:00 or 18:00-20:00 EDT (UTC-4)

Land cover changes can impact many areas of life. These changes can affect deforestation, ecological communities, wildfire extent, and urban growth. This advanced series will focus on using satellite imagery to map changes in land cover. Attendees will learn change detection methods, including image subtraction and classification. They will also conduct their own change detection analysis. This training will use QGIS, the R statistical program, and the Random Forest algorithm. Both sessions will feature a lecture, time to complete a hands-on exercise, and time for questions.

Attendee Learning Objectives

After completing the training, attendees will:

- become familiar with Landsat bands and color combinations
- understand how to visualize change in land cover using Landsat data
- learn the basic steps to conduct change detection by:
  - conducting image subtraction between two dates using QGIS
  - creating multi-date Landsat layer stacks
  - conducting multi-date land cover classification using the Random Forest classification in R
  - identifying and analyzing changes in land cover

Session One, September 28

This session will focus on an introduction to change detection. Included will be an overview of change detection, how to visualize change, and how to analyze land cover change using the image subtraction method.

Session Two, October 5

This session will continue with conducting a change detection analysis and will cover analyzing land cover change using different classification methods.

APPLIED REMOTE SENSING TRAINING PROGRAM

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