Satellite Remote Sensing of Water Cycle Components: Practical Hands-on Training
July 15-27, 2013, Addis Ababa, Ethiopia

Hosted by:
University of Connecticut
University of Illinois at Urbana Champaign
Addis Ababa University

Satellite remote sensing is becoming the primary source of data in water resources planning, development, and management. Its data products include precipitation, evapotranspiration, river stage and lake level, and total water storage.

Goal: This, two-week, practical training course covers satellite remote sensing of water cycle components. It provides hands-on experience on how to read, process and analyze satellite remote sensing data using HDFView, IDL and ENVI software, and deeper understanding of physical processes, algorithm, and accuracy of data products.

Topics
Introduction: Remote Sensing and Interactive Data Language (IDL)
Principles of remote sensing
Satellite remote sensing: satellites, sensors, orbits, resolutions, applications
Basics of IDL

Theme 1: Satellite Remote Sensing of Precipitation
Theory of precipitation estimation from satellite remote sensing
Satellite precipitation products: algorithms, and product acquisition
Hands-on calculation satellite precipitation data processing

Theme 2: Satellite Remote Sensing of Evapotranspiration
Algorithms for estimating evapotranspiration from satellite datasets
Satellite data acquisition and processing
Hands-on calculation of evapotranspiration using SEBAL algorithm

Theme 3: Satellite Remote Sensing of River Stage and Lake Level
Principles of Altimetry for estimating river stage and lake height
Satellite altimetry products: algorithms and data acquisition
Hands-on calculation of river stage and lake height from satellite altimetry data

Theme 4: Satellite Remote Sensing of Total Water Storage
Theory of total water storage estimation from satellite gravity fields
GRACE satellite gravity products: algorithms and data acquisition
Hands-on calculation of total water storage from GRACE data

Venue and Date: Addis Ababa University, Addis Ababa, Ethiopia. July 15-27, 2013.

Target Group: Graduate students, researchers and professionals who want to be capable to use satellite remote sensing datasets. The course is designed for both new and old users of satellite remote sensing data, HDFView, IDL and ENVI software.

Application: If you are interested, send your application stating your name, employer, reason for taking this course, and source of funding. Applications are submitted by email to Prof. Mekonnen Gebremichael (mekonnen@engr.uconn.edu <mailto:mekonnen@engr.uconn.edu>).

Application Deadline: April 30, 2013