

Workshop with Hands-on Training: Geospatial intelligence for mapping land and water change

(free access upon registration)

Florence 17 November 2023, Fortezza da Basso

1-day workshop for learning how to use satellite data for producing digital maps with a focus on natural resources and disasters

Satellite observations provide powerful data and tools for understanding and managing natural resources and mitigating nuisance impacts of natural and human-driven disasters. Earth observation supports scientists, professionals, governmental agencies as well as citizens for improved awareness, knowledge, and informed decision making towards sustainable and safe use of land and water systems. Geospatial Intelligence integrates Remote Sensing data and tools fostering multidisciplinary analytical capabilities able to work effectively at different scales, from global to regional mapping efforts. Geospatial Intelligence also supports joint efforts of satellite-sourced EO with Open Geo Data, Big Data, and Citizen Engagement.

This workshop is free to attend with no prerequisites for participants. The course is tailored for students, young scientists, and professionals but anyone interested is welcome. In one day both theoretical introduction lectures and hand-on materials will be used for a start-to-finish project development using geospatial intelligence platforms and algorithms to analyze and map land-water change across scales. Participants will work in groups and prepare within the same day a project on 3 main thematic areas.

This event is organized by the Water Resource Research & Documentation Center (WARREDOC) of Università per Stranieri di Perugia in collaboration with the Department of Civil and Environmental Engineering (DICEA), the Department of Agriculture, Food, Environment and Forestry (DAGRI), the Water Harvesting Lab, the EcoAgroMeteo Group, the Laboratory of forest geomatics (GeoLab), the Spatial Data Laboratory (LDT) of Università degli Studi di Firenze, National Biodiversity Future Center (NBFC) and the Department of Civil Engineering and Computer Science of University of Rome Tor Vergata.

The event is also organized with the contribution of the Extended Partnership 3 RETURN - multi-Risk sciEnce for resilient commUNITies undeR a changiNg climate, of the National Recovery and Resilience Plan – NRRP.

The course is in the English language, but special assistance is available also in the Italian language. All participants that will complete the workshop and hand-on training will receive a certificate of attendance.

17 november 2023

11:00 Introduction to satellite data and algorithms for Earth Observation
Fabio Castelli, Enrica Caporali, Elena Bresci, Gherardo Chirici, Fernando Nardi, Chiara Biscarini

11:30 Training with Hands-On: Using Google Earth Engine data and algorithms for mapping earth features and dynamics

Lecturers: Saverio Francini, Antonio Annis. **Support for training:** Gabriele Bertoli, Giulio Castelli, Jerome El Jeitany, Eleonora Forzini, Marco Lompi, Tommaso Pacetti, Luigi Piemontese, Deepa Somasundaram

13:00-14:00 Lunch break

14:00-16:00 Supervised team work by participants to develop their own project

16:00-17:00 Presentation of projects, workshop closing and certificates

Info on organization and logistics

To apply to the free course you need to register by accessing the dedicated web page at warredoc-unistrapg.org.

Participants are requested to bring their own laptops. Software installations no needed (web-based applications will be used) Online participation is possible (write us if interested)

For info write to warredoc@gmail.com



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