

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

Firenze 15 ottobre 2021, Fortezza da Basso

Pungwe River (free access upon registration)

Dondo

Beira

## 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**.

Theme 1) **Water change and floods** F. Nardi, F. Castelli, E. Caporali, A. Annis, C. Arrighi, T. Pacetti

Theme 2) **Land change, water management and food production** E. Bresci, G. Castelli, C. Dibari, L. Stendardi

Theme 3) **Forest change detection and impacts** S. Francini, G. Chirici

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 **Spatial Data Laboratory (LDT)**, the **Department of Agriculture, Food, Environment and Forestry (DAGRI)**, the **Water Harvesting Lab**, the **EcoAgroMeteo Group**, the **Laboratory of forest geomatics (GeoLab)**, the **COPERNICUS Research Unit of Università degli Studi di Firenze**.

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.**

15 ottobre 2021

09:00 – 09:30 Workshop introduction  
*Fernando Nardi, Filippo Maria Soccodato*

9:30 – 10:00 Introduction to satellite data and algorithms for Earth Observation  
*Fabio Castelli, Gherardo Chirici, Andrea Taramelli*

10:00 – 12:00 Training with Hands-On: Using Google Earth Engine data and algorithms for mapping earth features and dynamics  
*Antonio Annis, Chiara Arrighi, Giulio Castelli, Saverio Francini, Tommaso Pacetti, Laura Stendardi*

13:30 – 14:30 Lunch break

14:30 – 16:00 Supervised team work by participants to develop their own project

16:00 – 17:00 Presentation of projects

17:00 – 17:30 Workshop closing and certificates ceremony

To apply to the free course you need to register by accessing the dedicated web page at [warredoc-unistrapg.org](http://warredoc-unistrapg.org). For info write to [warredoc@gmail.com](mailto:warredoc@gmail.com)

### Info on organization and logistics

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 more info visit [warredoc-unistrapg.org](http://warredoc-unistrapg.org).



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geoLAB  
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