QGIS – Earth Observation / Remote sensing Intermediate level

PEDAGOGICAL OBJECTIVES

This training aims to manipulate, organize, and process satellite data from QGIS in order to perform classifications and index calculations.

At the end of the course, participants will be able to:

- 1. Understand the fundamentals of Earth Observation (EO), Remote Sensing and GIS
- 2. Extract satellite images from QGIS
- 3. Extracting and exploiting satellite images
- 4. Perform a supervised classification
- 5. Perform vegetation index calculations (NDVI)
- 6. Mapping results



TARGET AUDIENCE

All audiences

PREREQUISITES

Have a foundation in computer science and QGIS level 1

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TEACHING RESOURCES

Provision of a software license: yes

Pedagogical support in digital format given to the trainee (with concrete examples and practical exercises)

Evaluation questionnaire and certificate of completion of training



DURATION > 2 days. (14hours of training)



RATES > On quote



TERMS AND CONDITIONS

No pre-requisite selection Dates to be agreed



REGISTRATIONS

Email > formation@arxit.com Tel. > +33 (0)5 46 34 07 71

For the accessibility of people with disabilities, contact us.

CONTENT

REMINDER OF EO AND REMOTE SENSING

The main principles of Earth Observation (EO) and Remote Sensing (RS)

Conduct of a RS mission

Reminders about sensors and their use Presentation of the European Copernicus program Creating an account on the Copernicus hub

IMAGE ACQUISITION / GETTING STARTED

QGIS interface reminder Installing the SCP plugin in QGIS Getting started with the SCP plugin Sentinel image acquisition Application of atmospheric corrections

MANIPULATION OF SENTINEL IMAGERY

Create a multi-band composite image Creation / Interpretation / Recording of colored compositions Trimming an image

LAND USE MAP

Reminder on classifications Understanding a supervised classification Define land cover classes Create macro classes Sample management or Region of Interest Start a preview Start supervised classification analysis Understanding Spectral Indices (NDVI)

MAPPING THE RESULTS

Designing a layout Insertion of object (legend, title, text box, logo, sources, scale bar...) Cartographic Atlas

