

Formation SIG & GEOSERVER



SII-394 10 Days (50 Hours)

Description

Develop your skills in Geographic Information Systems (GIS) & GEOSERVER from introductory practices to deepening spatial data modeling techniques.

Who is this training for ?

For whom

QGIS User, Geomatician, Developer

Prerequisites

No prerequisites, but it is advisable to have basic knowledge of office vector GIS.

Training objectives

- Assimilate the basic concepts of GIS;
- Understand the notion of topology in GIS
- Create personalized geo-processing tools
- Use the Python language to automate GIS tasks
- Understand the main notions of GeoServer
- Be autonomous to properly install and exploit the GeoServer
- Exploitation features of Web Services

Training program

1ere Semaine : Formation SIG

Initiation aux Systèmes d'Information Géographique / Application au logiciel QGIS

- Introduction to GIS
- Presentation of data projection systems
- Visualization of geographic data
- Software installation and configuration
- Application of theoretical notions (Coordinate system settings, Adding data layer, cartographic data pane)
- Updating data under QGIS (Geo referencing, Digitization, Attribute entry tools)
- Manipulation of data under QGIS
- Manipulation of other data formats managed by QGIS
- Making maps

Approfondissement en SIG

- Understanding the concept of topology in GIS
- Carrying out geo-processing (division, intersection, union, etc.)
- Working on Raster and Digital Terrain Model (DTM) to extract level curves, create slope rasters, shading, terrain profiles...
- Advanced spatial analysis

Programmation en Systèmes d'Information Géographique

- Introduction to Geographic Information Systems development
- Presentation of development tools
- Configuration of the development environment
- Programming a basic GIS functionality
- Development of a geo-processing functionality
- Use of the python language in GIS
- Automation of repetitive tasks in GIS

2ème Semaine : Formation GEOSERVER

Introduction

- Presentation of GeoServer
- Principle of a cartographic server
- Objectives and interest

Principes d'installation

- Setting up Jetty
- Setting up TomCat

Intégration de données

- Loading vector or Raster data
- Managed formats
- Connection to a PostGIS database
- Warehouse concept

Publication des données

- Styling: Principles of the SLD format
- Labels

Les jointures

- Attribute joins
- Spatial joins

WebServices

- Exploitation flus WMS/WFS

Administration

- User management
- Access rights management
- Security principles

Interactions avec QGIS