€TRAINING

Course: Training in GIS



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Introduction

This course teaches the basic concepts and basic functions of GIS, the characteristics of GIS maps, and the structure of a GIS database. Through this course, the trainee learns to develop basic skills by working with "ArcGIS" to display geographic data, create maps, and query databases. GIS data, and analyze data using analysis tools provided by the program.

Course Objectives

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

- Gain Knowledge of basic concepts of GIS.
- Understand what a GIS is, what it can do, and how others use it.
- Estimate how your organization can benefit from GIS.
- Create a basic GIS map.
- Work with different types of geographic data.
- Access information about geodatabases and features.
- Understand how to apply a systematic approach to data analysis in order to find patterns and relationships.
- Gain Familiarity with the structure and components of the "ArcGIS" program.
- View spatial information.
- Search and query geographic information system databases.
- Modify spatial and descriptive data.
- Link and build relationships between tables and maps.
- Create maps, reports and graphs.

Targeted Audience

- Individuals who do not have any type of education before about GIS or experience working with GIS.
- Graduate students in the humanities and applied sciences, researchers in feasibility studies.
- Municipal engineers and workers in housing and contracting companies.
- Anyone who finds himself in need of this course and wants to develop his skills and experience.

Course Outline

Unit 1:General introduction and Components of GIS:

- Geographical information system functions.
- Applications.
- Features and classes.
- Drawing scale.

Unit 2: Explore the GIS database:

- Attribute tables.
- The relationship between features and traits.
- Features coding and labeling based on their traits.

Create maps:

- Data display and layout view.
- Planning tools.
- Map elements.
- The map is issued.

Unit 3: Understanding the site:

- Local and global identification systems.
- Projection systems in the map.
- Find signed coordinates on the map.
- Measure an area or distance on the map.

Unit 4: Negative and positive data:

- View real data.
- Geographical database.

Geographical data:

- Data tables.
- Examine geographic data and query data.
- Search using features.
- Search using the site.
- Spatial relations analysis.

Unit 5: Solve problems with GIS.

- GIS analysis process.
- Apply GIS tools to analyze a geographic problem.
- Create a map layout to display the results.