

GIS and Remote Sensing Applications for Renewable Energy Site Selection

COURSE OVERVIEW

This course on GIS and Remote Sensing Applications for Renewable Energy provides participants with a comprehensive understanding of how geospatial technologies can be applied to identify, analyze, and optimize potential sites for renewable energy projects. By integrating Geographic Information Systems (GIS) and remote sensing techniques, the course explores methods for assessing land suitability, evaluating environmental and socio-economic factors, and supporting data driven decision making in the planning and development of solar, wind, hydro, and biomass energy projects.

WHO SHOULD ATTEND?

This course is designed for renewable energy project developers and managers, GIS professionals and spatial analysts, environmental consultants, urban planners, energy engineers, government officials, researchers, and investment analysts. It is also ideal for professionals aiming to advance their careers in clean energy through geospatial technologies.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Use GIS and remote sensing tools to identify and evaluate renewable energy project sites.
- Analyze geospatial and environmental data to support informed site selection.
- Integrate satellite imagery, terrain, and climate data for solar, wind, hydro, and biomass mapping.
- Develop spatial models and suitability maps for energy planning and decision-making.
- Apply geospatial techniques to monitor and optimize renewable energy infrastructure.
- Interpret GIS-based outputs to guide project development, investment, and policy decisions.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand:

- How to use GIS and remote sensing for renewable energy site identification.
- Why geospatial data is essential for accurate resource assessment and planning.
- How to integrate satellite, terrain, and climate data for multi-energy mapping.
- When to apply spatial modelling for energy suitability and feasibility analysis.
- How to monitor and optimize energy infrastructure using geospatial tools.
- Why data visualization and interpretation support effective energy policy and investment decisions.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded