



**MAHATMA GANDHI UNIVERSITY
SCHOOL OF ENVIRONMENTAL SCIENCES
DR. R. SATHEESH CENTRE FOR
REMOTE SENSING AND GIS**

(Estd. & Supported under the National Natural Resources
Management System – NNRMS-SCT – programme of Govt. of India
led by ISRO, Dept. of Space)

CERTIFICATE PROGRAMME ON ADVANCED GEOSPATIAL TECHNOLOGIES WITH PYTHON



Transform your GIS Career with python in 30 Days

MODULE 1

INTRODUCTION TO PROGRAMMING & PYTHON SETUP

- What is Python?
- Installation & Setting up
- Understanding Variables and Data types
- Basic Arithmetic operations
- Input & Output and Type Conversion

MODULE 2

CONTROL FLOW & DATA STRUCTURES

- Conditional Statements
- Loops- For and While
- Introduction to Data Structures

MODULE 3

FUNCTIONS & INTRODUCTION TO LIBRARIES

- Defining and Using Functions
- Understanding Python Libraries
 - Introduction to Numpy*
 - Introduction to Pandas*
- Basic Operations with Numpy and Pandas

MODULE 4

INTRODUCTION TO GIS WITH PYTHON

- Why Python in GIS?
- Types of Data
- Introduction to GIS Libraries
- Visualizing and Manipulating Spatial Data

MODULE 5

ADVANCED SPATIAL ANALYSIS WITH PYTHON

- Automation of GIS tasks
- Spatial Analysis Techniques
 - Vector Based Analysis*
 - Raster Based Analysis*
- Introduction to basic scripting workflows

WHO CAN APPLY

Any interested graduates can apply

FIRST TIME LEARNERS ALSO CAN APPLY

DAILY LIVE- INTERACTIVE SESSIONS (ONLINE)

RECORDED LECTURES WILL BE PROVIDED

SESSIONS ON ML & AI BASED APPLICATIONS



SCAN THE CODE
FOR REGISTRATION

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