



**Centre for Applied Geoinformatics
South Asian Institute for Advanced Research & Development
(SAIARD)**

offers

Course Credit: 01

Time: 7.00 - 8.30 p.m.

Date: 17 – 23 Jan 2021

**Registration Fees: 1000/- - Academicians
3000/- - Professionals**

Mode of Class: Online

E-Certificate will be available to the registered candidates

Contact Details: 6289169916, saiardkolkata@gmail.com

Registration Link: <https://forms.gle/eGQKoLa6UyppqHG5A>

7 Days Online Certificate Course on

**Application of
PYTHON in GIS**

COURSE CONTENTS

2. Basic Concepts

- 2.1 Syntax and comments
- 2.2 Variables, Data Types & Type Casting
- 2.3 Basic operators and operations
- 2.4 Decision Making and loops
- 2.5 Data Structures & their methods
 - 2.5.1 Lists
 - 2.5.2 Tuples
 - 2.5.3 Sets
 - 2.5.4 Dictionary
- 2.6 Functions
- 2.7 Scope & Modules

4. Python In GIS

- 4.1 Introducing Python Using the Python Window in Arc GIS
- 4.2 GIS data access and manipulation with Python
- 4.3 Python for GIS analysts
- 4.4 Approach of python scripting in GIS

1. Introduction

- 1.1 Why Python - Advantages and Disadvantages
- 1.2 Why is Python called interpreted?
- 1.3 Interesting facts and Features of Python
- 1.4 Python Installation and various IDE
- 1.5 Use of Python in GIS
- 1.6 Let's start Python program

3. Advanced Concepts

- 3.1 OOP concepts
- 3.2 Class & Objects
- 3.3 Constructors in Python
- 3.4 Method Overloading in Python
- 3.5 isinstance in Python
- 3.6 Descriptors
- 3.7 Multiprocessing and multithreading in Python
- 3.8 Database Access
- 3.9 XML processing