

## Python Summer Training Syllabus

### **1. Introduction to Python**

Python Introduction, History of Python, Introduction to Python Interpreter and program execution, Python Installation Process in Windows and Linux, Python IDE, Introduction to anaconda, python variable declaration, Keywords, Indents in Python, Python input/output operations

### **2. Python's Operators**

Arithmetic Operators, Comparison Operators, Assignment Operators, Logical Operators, Bitwise Operators, Membership Operators, Identity Operators, Ternary Operator, Operator precedence.

### **3. Python's Built-in Data types**

String, List, Tuple, Set, Dictionary (characteristics and methods)

### **4. Conditional Statements & Loop**

Conditional Statements (If, If-else, If-elif-else, Nested-if etc.) and loop control statements (for, while, Nested loops, Break, Continue, Pass statements)

### **5. Function in python.**

Introduction to functions, Function definition and calling, Function parameters, Default argument function, Variable argument function, in built functions in python, Scope of variable in python

### **6. File Processing**

Concept of Files, File opening in various modes and closing of a file, Reading from a file, Writing onto a file, some important File handling functions e.g open(), close(), read(), readline() etc.

### **7. Modules**

Concept of modularization, Importance of modules in python, Importing modules, Built in modules ( ex: Numpy)