



NUST-KARACHI

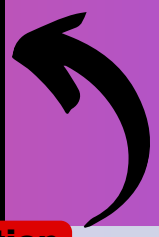


**DISCOUNTS ARE AVAILABLE**

# HANDS-ON PYTHON PROGRAMMING

**COURSE FEE  
RS: 14,400/-**

**SAT-SUN CLASSES  
START FROM  
17-AUG-2024  
(DURATION 18HR)**



**Scan For Registration**

## INTRODUCTION:

Python is one of the most popular languages used in a variety of domains such as AI, Cyber Security, Web Development, etc. This workshop is designed to empower you with the fundamentals of Python and its vital role in the field of Artificial Intelligence (AI). Python offers an easy learning curve, making it an ideal choice for beginners. With its clean and intuitive syntax, Python allows you to focus on problem-solving rather than getting bogged down by complex code. Python AI libraries provide ready-to-use tools and algorithms that simplify the development of AI models, making Python an indispensable tool for aspiring AI enthusiasts. The workshop will provide you with ample opportunities to write code and engage in hands-on activities. This experiential learning approach ensures that you not only understand the theory but also gain practical skills to apply in your projects.

### Note:

The entire workshop will be conducted in computer lab. Participants will code as they learn.

## CONTACT US

☎ 021 - 48503044  
033 - 05988928  
✉ [dirpdc@pnec.nust.edu.pk](mailto:dirpdc@pnec.nust.edu.pk)  
🌐 <https://pnec.nust.edu.pk/pdc/>

## CLASS MODULES :

- 1 – Laying the Foundation
- 2 – Mastering the Basics
- 3 – Diving Deeper
- 4 – Practical Applications

📍 PNS JAUHAR, Habib Ibrahim Rehmatullah Road, Karachi, Pakistan

**PNEC-NUST**



# WORKSHOP CONTENTS:

## DAY 1 LAYING THE FOUNDATION

- 1. Introduction to Python: Understanding its significance and versatility
- 2. Setting up the Python environment: Installing Python and an Integrated Development Environment (IDE)
- 3. Basic syntax and data types: Variables, strings, numbers, and boolean values
- 4. Input and output operations: Taking user input and displaying output

## DAY 2 MASTERING THE BASICS

- 1. Control flow: Conditional statements (if, elif, else) and loops (for, while)
- 2. Lists and tuples: Storing and manipulating data in ordered sequences
- 3. Functions: Defining and calling functions to modularize your code
- 4. File handling: Reading from and writing to files

## DAY 3 DIVING DEEPER

- 1. Dictionaries: Key-value pairs for efficient data organization
- 2. Modules and libraries: Exploring the vast Python ecosystem
- 3. Exception handling: Catching and managing errors gracefully
- 4. Object-oriented programming (OOP) concepts: Classes, objects, and inheritance

## DAY 4 PRACTICAL APPLICATIONS

- 1. Building projects: Putting your skills to work in real-world scenarios
- 2. Web scraping: Extracting data from websites
- 3. Introduction to data analysis: Analyzing and visualizing data with Python
- 4. Wrap-up next steps: Resources for further learning & career opportunities

Don't miss this opportunity to unlock the doors to limitless possibilities with Python. By the end of this workshop, you'll have the confidence and know-how to write your own Python programs, tackle exciting coding challenges, and open doors to a world of opportunities.

Note: The workshop schedule and content can be customized according to the specific needs and preferences of the participants.

## ABOUT THE TRAINER:

Dr Gul Shahzad is working as Assistant professor in the department of Electronic and Power Engg dept and is also the director of Artificial Intelligence Lab.

He has done his PhD from Hanyang University South Korea in Electronics Engineering and did his research in the domain of Internet of Things (IoT) while working on a Korean Government funded smart city project. Dr. Gul did his masters from Germany in information of communication Engineering and has worked in Franhofer institute and max Planck institute, two prestigious Research and Development organizations in Germany. In PNEC-NUST, Dr. Gul is involved in teaching at both graduate and postgraduate level in the relevant domain such as AI and Decision Support System, AI & Machine Learning, Advanced Wireless Communications, Digital Signal Processing. He is also the founder and advisor of NRAI (NUST Artificial Intelligence and Robotics) society, which is involved in the development of AI enabled Humanoid robot.

## CONTACT US

☎ 0 2 1 - 4 8 5 0 3 0 4 4  
0 3 3 - 0 5 9 8 8 9 2 8

✉ dirpdc@pnec.nust.edu.pk

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