



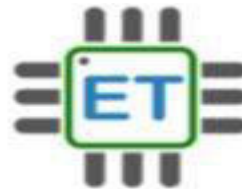
**ALL INDIA COUNCIL FOR  
TECHNICAL SKILL DEVELOPMENT**  
अखिल भारतीय तांत्रिक कौशल्य विकास परिषद

# **Industrial Certified Python with AI Developer**

**Implement Artificial Intelligence (AI)  
Applications & Projects with Python &  
Automation**

**All India Council For Technical Skill Development (AICTSD)**

**In Association with  
IITians Embedded Technosolutions**





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## Python with AI Developer

### Module 1 - Introduction to python

- Python Basics
- Data Types, Operators, Loops, Conditional statements
- Python 2 v/s Python 3

### Module 2 - Strings in Python Programming

- Accessing Values in Strings
- Updating Strings
- Escape Characters
- String Special Operators
- String Formatting Operator
- Triple Quotes



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## **Module 3 - Lists in Python Programming**

- Python Lists
- Accessing Values in Lists
- Updating Lists
- Delete List Elements
- Basic List Operations
- Indexing, Slicing, and Matrixes
- Built-in List Functions & Methods

## **Module 4 - Tuples in Python Programming**

- Python Tuples
- Accessing Values in Tuples
- Updating Tuples
- Delete Tuple Elements
- Basic Tuples Operations
- Indexing, Slicing, and Matrixes
- No Enclosing Delimiters
- Built-in Tuple Functions



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## **Module 5 - Dictionary in Python Programming**

- Python Dictionary
- Accessing Values in Dictionary
- Updating Dictionary
- Delete Dictionary Elements
- Properties of Dictionary Keys
- Built-in Dictionary Functions & Methods

## **Module 6 - Advance Data Types, Functions, Modules**

- Working with lists, dictionary and tuples
- Defining functions
- Working with modules

## **Module 7 - File I/O Operations**

- Reading and writing files
- Access modes of files

## **Module 8 - Exception Handling**

- Handling a exception
- Multiple exceptions
- User-defined exceptions



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## **Module 9 - OOPs with Python**

- Overview of OOP terminology
- Defining Classes and Objects
- Working with Inheritance
- Abstract Classes

## **Module 10 - Multi threading**

- Threading concept
- Working with threading module

## **Module 11 - GUI**

- Working with Tkinter module
- Creating graphical Windows, Frame
- Creating Text box, Label, Check buttons ,Radian buttons etc

## **Module 12 - Artificial Intelligence (AI)**

- Introduction to computer vision
- What is openCV
- Loading and displaying an image
- Resizing an image
- Accessing the pixels
- Image smoothening
- Identifying the face in an image
- Writing text to an image