



Embedded Technosolutions

Venture of IIT Bombay & VJTI Alumni

Embedded Systems | Software | Mechanical | Automation

Trainings & Jobs

100% Placement Assistance

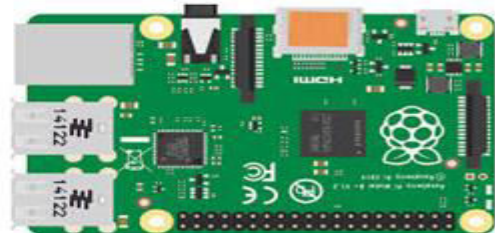
Contact : 8828222688 / 9224301650

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Industrial Certified Python Raspberry Pi IOT Integration Program

Government of India (MSME) & IIT Bombay Alumni Recognized



BRAND PROMISE

We Guarantee You that, You Can Develop Your Projects by Your Own After This Training Program



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GOVERNMENT OF INDIA
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES

उद्योग आधार Udyog Aadhaar

Type of Enterprise	Micro	Small	Medium
Manufacturing	A	B	C
Services	D	E	F
UAN	MH19E0006383		

Government of India (MSME)

Name of Enterprise : Embedded Technosolutions

Type of Organisation
Proprietary

Postal Address
Shop No.C/20,1st Floor ,Amrita Sadan, Near Hotel Dwarka,Nerul West,District - Mumbai City, State - Maharashtra, 400706

Email
info@embeddedtechnosolutions.com

Majority Activity
Services

District Industry Centre **UAN**
Mumbai City MH19E0006383

**Government of India (MSME) & ISO 9001-2015
Approved Organisation
Running by IIT Bombay & VJTI Alumni**



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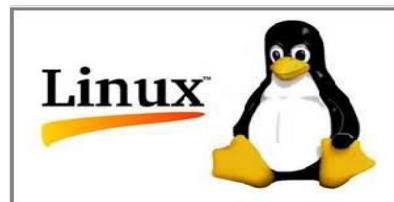
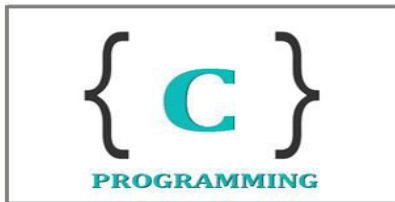
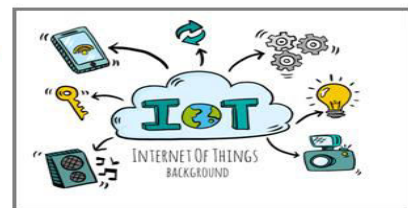
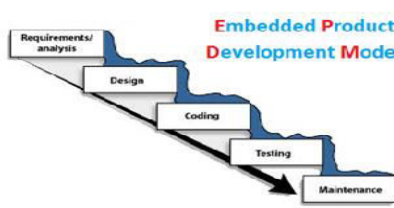
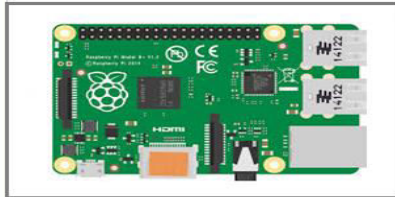
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Industrial Python Developer

Practical & Professional Training on

Python Raspberry Pi IOT

Chapter 1: Introduction

- Introduction to Python Language
- Industrial Importance of Python Language
- Features of Python Language

Chapter 2 : Environment Setup

- Getting Started with Python



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- Installing Python
- Unix and Linux Installation in Python
- Windows Installation
- Setting up PATH
- Setting path at Unix / Linux
- Setting path at Windows

Chapter 3 : Starting With Python Programs

- Script Programming
- Python Identifiers
- Python Keywords
- Python Lines and Indentation
- Python Multi-Line Statements
- Quotation in Python
- Comments in Python



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- Using Blank Lines
- Multiple Statements on a Single Line
- Variables and Data Types in Python
- Multiple Assignment in Python Programming
- Standard Data Types in Python
- Data Type Conversion in Python
- Python Input and Output

Chapter 4 : Python - Operators

- Types of Different Operators in Python
- Changing the Order of Evaluation

Chapter 5 : Conditional statements in Python Programming

- if statements
- if...else statements
- The elif Statement
- Nested if statements



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Chapter 6: LOOPS in Python Programming

- While loop
- The Infinite Loop
- Using else Statement with Loops
- For loop
- Nested loops
- Loop Control Statements

Chapter 7: Strings in Python Programming

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



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Chapter 8: 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

Chapter 9 : Tuples in Python Programming

- Python Tuples
- Accessing Values in Tuples
- Updating Tuples
- Delete Tuple Elements
- Basic Tuples Operations
- Indexing, Slicing, and Matrixes



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- No Enclosing Delimiters
- Built-in Tuple Functions

Chapter 10 : Dictionary in Python Programming

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

Chapter 11 : Functions in Python Programming

- Calling a Function
- Pass by reference Vs. value
- Function Arguments
- Required arguments
- Keyword arguments



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- Default arguments
- Variable-length arguments
- The Anonymous Functions
- The return Statement
- Scope of Variables
- Global vs. Local variables
- The global statement

Chapter 12: Modules in Python Programming

- The import Statement
- The from...import Statement
- The from...import * Statement
- Locating Modules
- The PYTHON PATH Variable
- The time Module
- Getting current time



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- Getting formatted time
- The calendar Module

Embedded Linux With Raspberry Pi IOT

Module 1 : Raspberry Pi Set up & Configurations

- 1.1 Program Raspberry Pi : a credit-card sized computer
- 1.2 Python programming for Raspberry Pi
- 1.3 Interacting and configuring the RPi OS
- 1.4 ARM 11 architecture
- 1.5 Porting of Linux Kernel and booting RPi

Module 2 : Linux Command for Application Execution

- 2.1 Linux programming basics



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Module 3 : Raspberry Pi GPIOs

3.1 Programming the GPIO and interfacing peripherals With Raspberry Pi

Module 4 : PWM Generation

4.1 Generating PWM signals through the Pi for Various applications

Module 5 : UART Protocol & Interfacing

5.1 Programming and work with UART protocol ,example Bluetooth

Module 6 : I2C Protocol Interfacing & Applications

6.1 Work with I2C protocol

Module 7 : Camera Interfacing & Applications Designing

7.1 Camera Libraries & Driver Installations

7.2 Camera based applications designing



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Module 8 : Raspberry Pi With IOT

8.1 Remote Login methods: HyperTerminal, Ethernet

8.2 LED Operation Using IOT

8.3 Embedded Webserver

Module 9 : Computer App Designing

9.1 Developing GUI with TKinter



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	<u>Live Projects</u> :
	Python Raspberry Pi IOT Based
1	Traffic Light System
2	Environmental Parameters Measurement
3	Voice Control Home Automation
4	BlueSys using Bluetooth
5	Wireless Mobile Smart System
6	PWM Based Variable System
7	Camera based Surveillance System
8	GUI Based Home Automation using TKinter



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Placement Policy

- As we are working for industries for their product development, R&D, Customization & Manufacturing we get direct recruitment related notification from that companies whenever there is the recruitment in the that companies.
- Also other companies in the market they also call us regarding recruitment process.

These entire JOB related notifications we exclusively provide to our students and they can apply in that companies directly. We upload the password protected job notifications on our website, students can access that job notifications from our website with password.