



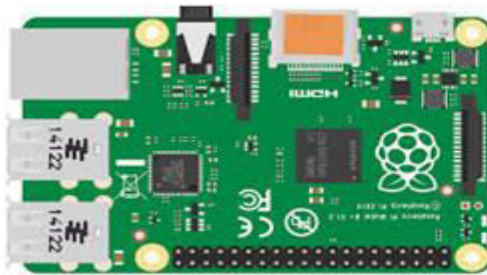
# Embedded Technosolutions

Venture of IIT Bombay & VJTI Alumni

**3** Times IIT Bombay Robo Competition Winner

## Integrated Training Program Raspberry Pi with AI

Government of India (MSME) & IIT Bombay Alumni Recognized



**B R A N D**

**PROMISE**

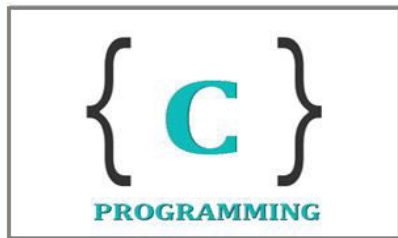
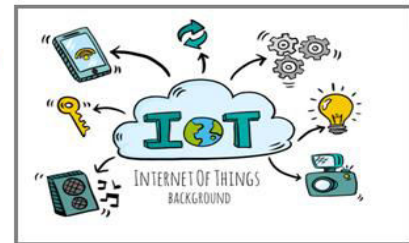
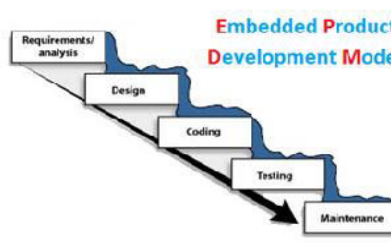
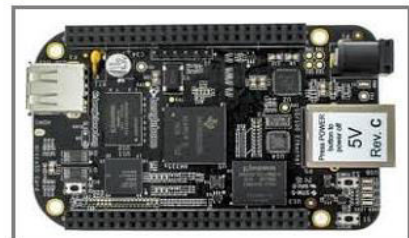
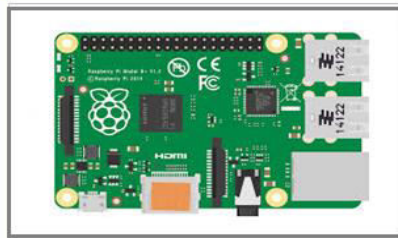
We Guarantee You that, You Can Develop Your Projects by  
Your Own After This Training Program



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## **Practical & Professional Training on Raspberry Pi with Artificial Intelligence**

### **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

### **Module 3 : Raspberry Pi GPIOs**

- 3.1 Programming the GPIO and interfacing peripherals With Raspberry Pi



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## **Module 4 : UART Protocol & Interfacing with Bluetooth**

4.1 Programming and work with UART protocol ,example Bluetooth

## **Module 5 : Raspberry Pi With IOT**

5.1 Remote Login methods: HyperTerminal, Ethernet

5.2 LED Operation Using IOT

5.3 Embedded Webserver

## **Module 6 : Computer App Designing**

6.1 Developing GUI with TKinter

## **Module 7 : AI- Image to Text Conversion**

7.1 Python Commands & Tool Box of IP

7.2 Pytesseract (OCR)

7.3 PIL Image Enhancing

7.4 Text to Speech (Flite)

## **Module 8 : AI- Image Color Detection**

8.1 Python for Image Color Detection

8.2 Open CV



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## Module 9 : AI- Human Blink Detection

9.1 Python for Human Blink Detection with Open CV

9.2 D Lib

	<b><u>Live Projects</u></b> :
	<b>Raspberry Pi with AI Based</b>
<b>1</b>	Traffic Light System
<b>2</b>	Voice Control Home Automation
<b>3</b>	Blue Sys using Bluetooth (UART Protocol)
<b>4</b>	Raspberry Pi Computer App Designing for Home Automation
<b>5</b>	Appliance Operation using IOT
<b>6</b>	AI Based Reading System for Blind People
<b>7</b>	AI Based Color Detection
<b>8</b>	Eye Blink Detection for Physically Impaired People



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