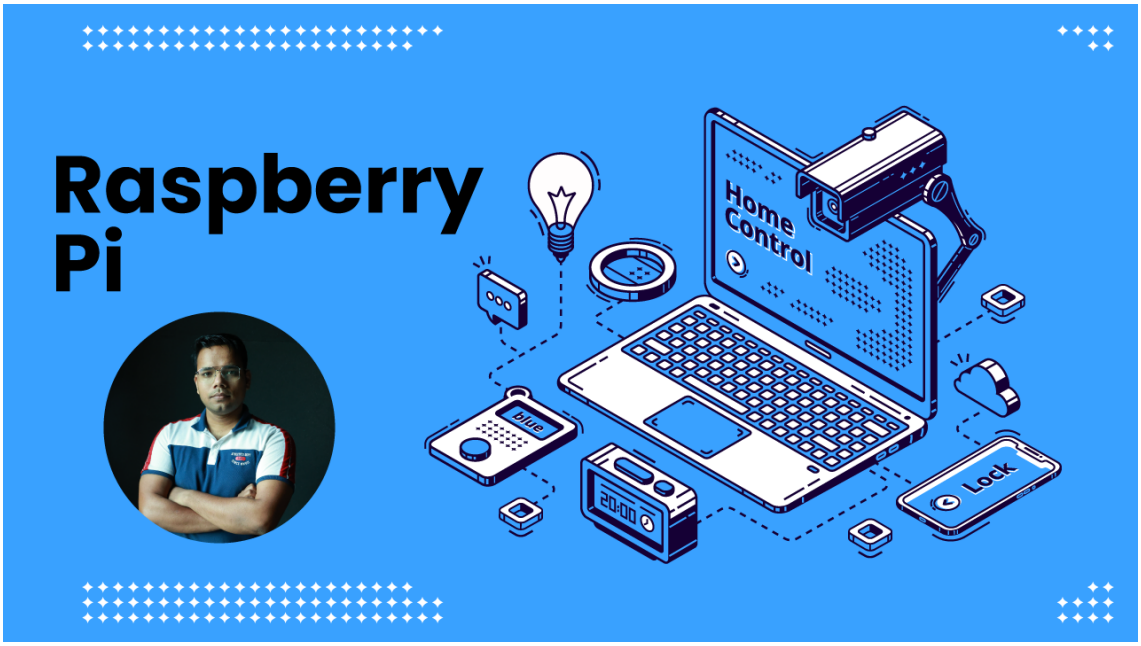
Welcome to ineuron.ai




Raspberry Pi

**Description:**

In this course, you will learn the basics of Raspberry pi and difference between microprocessor and microcontroller and how to use raspberry pi from which you can build amazing IOT applications with Raspberry PI OS. You will also learn Python programming language. This course will introduce the basic of Python library GPIO which will help you to start your journey in the field of artificial intelligence.

**Start Date:**

**Doubt Clear Time:**

**Course Time:**

**Features:**

# Live instructor led classess

# Completion certificate

# Integrate academic knowledge with the tech

# Real-time Project

# Live Class Recording

# Doubt Clearing

# Assignment in all the Module

# Quiz in every Module

# Career Counselling

# Completion Certificate

**What we learn:**

# Get started with Raspberry Pi

# Understanding Raspberry Pi

# Understanding of Protocol used in Raspberry Pi

# Basics of  Electronic

# OS Tour + Linux Fundamentals

# Understanding Sensors and intergration with Raspberry Pi

# Raspberry Programming

# Raspberry Pi beginner projects

**Requirements:**

# System with Internet Connection

# Interest to learn

# Dedication

**Instructor:**

**Name:**

Sunny Bhaveen Chandra

**Description:**

Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

**>Get started with Raspberry Pi:**

>>Introduction to microcontroller and microprocessor

>>Microcontroller vs Microprocessor

>>Example  of microcontroller and microprocessor

>>introduction to raspberry pi

>>Various models of Raspberry Pi

>>Comparison among Raspberry pi, Arduino, Nvidia Jetson Nano, Google coral

>>History of Raspberry Pi

>>Real life use cases for Raspberry Pi

>>Daily Computation

>>Internet of things

>>AI development

>>Purchase Raspberry Pi

>>Ineuron innovation lab (One Nueron)

>>Installtion of Raspberry Pi OS

>>Configure and initiate initial boot of Operating System

>>Get started with programming  (C++ and Python)

**>Understanding Raspberry Pi:**

>>Raspberry Pi Architecture

>>Raspberry Pi specification

>>Raspberry Pi (40 Pin)

>>Components of Raspberry Pi

**>Understanding of Protocol used in Raspberry Pi:**

>>Introduction to Protocol

>>UART, SPI, I2C, I2S, Digital I/O, wifi,and bluetooth

**>Basics of Electronic:**

>>Boards

**>Basics of Electronic:**

>>Basic Components (Resister,Led,Transistor,Capacitor,Diode)

>>Basic Concepts electicity (Current,Power,voltage etc)

**>OS Tour + Linux Fundamentals:**

>>Desktop Personalization

>>Working with Terminal

>>Raspberry Pi Terminal commands

>>Connecting to a Network

>>Remote Desktop

**>Understanding Sensors and intergration with Raspberry Pi:**

>>Introduction to Sensor

>>Difference between analog and digital sensors

>>Sensor list with use case

**>Raspberry Programming:**

>>Supporting Languages

>>I/O Programming

>>GPIO configuration

>>GPIO programming

>>Interfacing of raspberry pi with various sensors

>>Interfacing analog and digital sensors with Raspberry Pi

**>Raspberry Pi beginner projects:**

>>Camera Interfacing in Raspberry Pi

>>Configuration of camera module in Raspberry Pi

>>Integration of multiple camera

>>Installation of OpenCV

>>Real-time video streaming using Camera