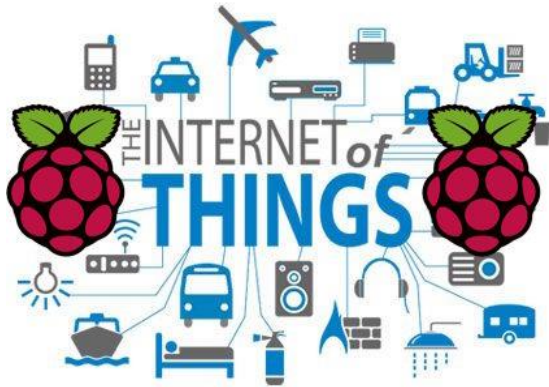
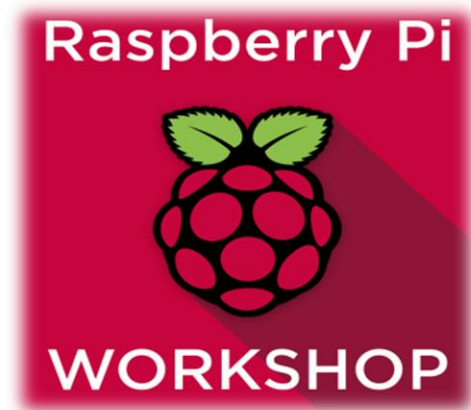

Industrial Internship Syllabus (CMPS & IT)



IOT



Raspberry Pi



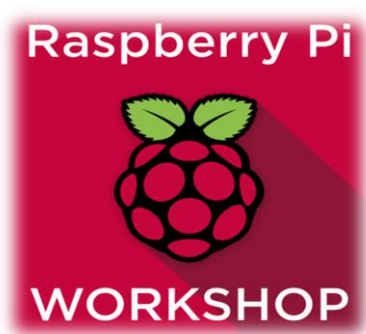
Python

About the Team

MDB Electrosoft Pvt. Ltd. is conducting training program from last seven years we provide industry oriented training which helps to integrate academics with real time corporate world.

Our Mission is to develop the technically sound, well skill students for industries and create maximum employment.

MDB Electrosoft Pvt. Ltd. is grooming electronics and software product Development Company. We develop electronics and software products which help society to make life easy and interesting. Our team is always dedicated for the Development and Innovations. Our research in a product development makes the product outlined as per client requirement. Our development strategy gives throughput which inclined with the user requirements. Our vision is to develop society oriented products which always dole out better life. Our economic policies give lot in less. Our product development starts from user's requirement and ends on efficient and well develop product. Our team has well experience and skilled experts who are able to give efficient and in time solution. Every solution provided by us is unique and innovative. Our approach has been always customer and market communication centric. We create products keeping our target consumer and audience in mind. Our expertise always focuses on market requirement and development.



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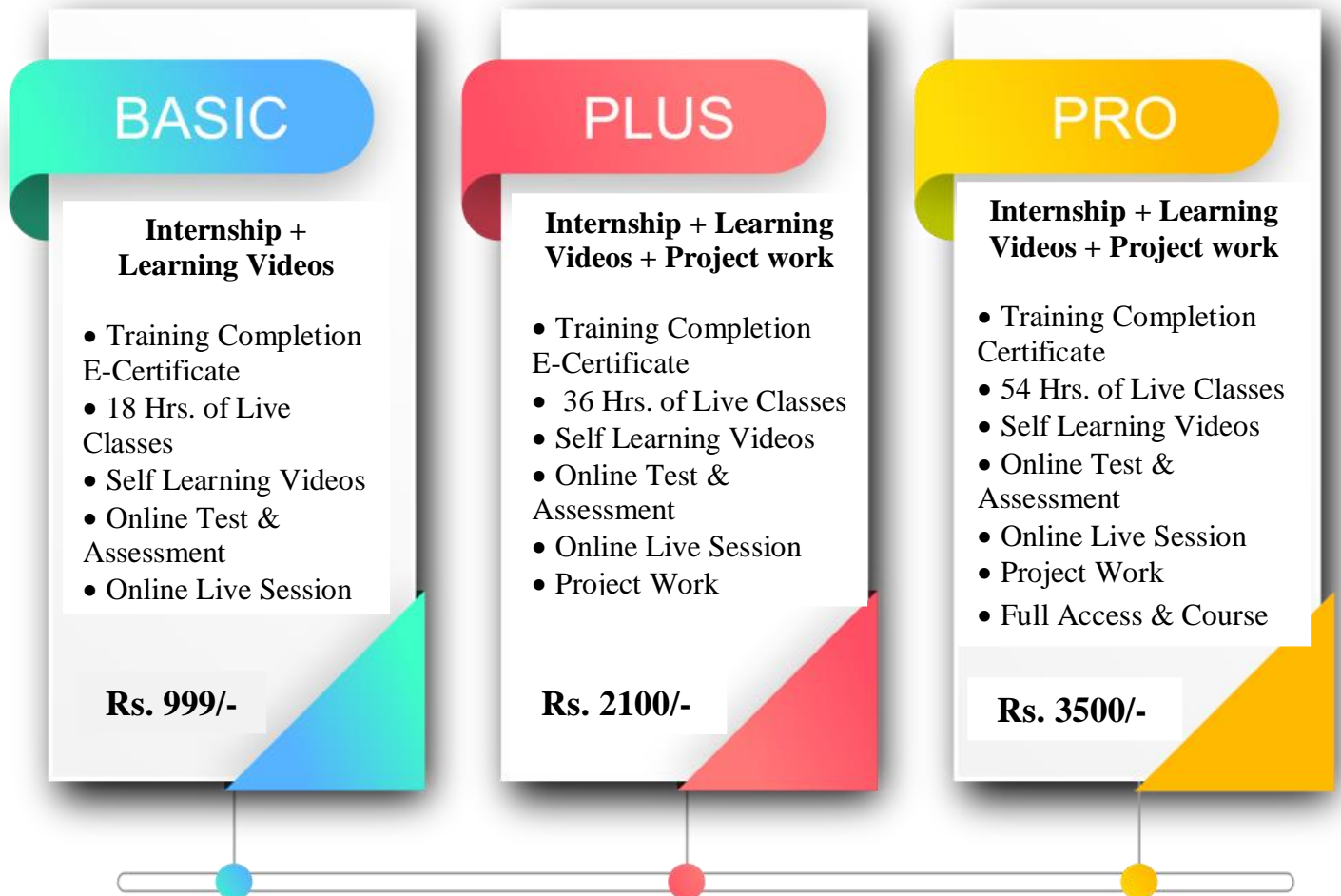
Sr. No.	Content
1	Introduction to IOT
2	IOT Architecture
3	Introduction to Raspberry Pi
4.	Installation of Raspberry Pi and Operation system Raspbian
5.	Introduction to Linux operating system and some basic functions
6.	Introduction to Python and Some basic programs. 1) History of Python 2) Interactive Mode Programming 3) Script Mode Programming 4) Lines and Indentation 5) Assigning Values to Variables 6) Standard Data Types 7) Python Strings 8) Python Basic Operators 9) Python Loop 10) Developing python program to understand above concepts.
7.	GPIO structure of Raspberry Pi
8.	Interfacing of LED and programming it for blinking using python language
9.	Interfacing of switch and programing it for different purposes Like Switching LED, Increment Display etc
10	PWM feature of Raspberry Pi 3
11.	Linking PWM feature with switch
12.	Development of program in python to read data from URL
13.	Introduction to GUI by tkinter
14.	Write Python code to develop button and to send data to URL
15.	Developing Complete application to control home appliances through IOT
16.	Introduction to Thingspeak
17.	1) Opening Account on Thingspeak 2) Creating Channel on Thingspeak
18.	Programming Raspberry Pi to send data on Thingspeak
19.	Demonstration of interfacing of Web Cam.
20.	Introduction to Image Processing using Raspberry PI
21.	Q & A Session and Security issues related with IOT.
22.	Discussion of Research area in the field of IOT

Sr. No.	Content
1	Introduction to Python.
2	Python Basic syntax
3	Interactive mode programing
4	Script mode programing
5	Python identifiers
6	Lines and indentation.
7	Variables in Python 1)Assigning value 2)Multiple assignment 3)Standard data type 4) Strings 5)Lists 6)Tuples 7)Dictionary 8)Data type conversion 9)
8	Operators in Python 1)Arithmetic operator 2)Comparison Operator 3)Assignment Operator 4)Logical Operator 5)Bitwise Operator 6)Membership Operator 7)Identity Operator 8)
9	Python Loops 1)while loop 2)for loop 3)nested loop 4)if statement
10	Control Statement 1)break statement 2)continue statement 3)pass statement
11	Indexing, Slicing and Matrixes
12	Python Tuples
13	Python Date & Time
14	Python Function 1)Definition of Function 2)Syntax 3)Pass by reference and pass by Value
15	GUI Development using TKinter. a) Introduction to tkinter b) Developing code for button. c) Development of GUI for calculator. d) Develop GUI to send email
16	Game Design using Python a)Bacis of Game Design b)How to work with simple program c)How to take images inside game d)Development of complete game.

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8.	Interfacing of LED and programming it for blinking using python language
9.	Interfacing of switch and proگرامing it for different purposes Like Switching LED, Taking Photograph, Increment Display etc
10	PWM feature of Raspberry Pi 3
11	Linking PWM feature with switch
12	Development of program in python to read data from URL
13	Introduction to HTML
14	Write HTML code to develop button and to send data to URL
15	Developing Complete application to control home appliances through IOT
16	Introduction to Thingspeak

17	Opening Account on Thingspeak
18	Creating Channel on Thingspeak
19	Programming Raspberry Pi to send data on Thingspeak
20	Demonstration of interfacing of Web Cam.
21	Introduction to Image Processing using Raspberry PI
22	Q & A Session and Security issues related with IOT.
23	Discussion of Research area in the field of IOT
24	Introduction to android . History of Android.
25	Architectural comparison of android operating system with other Smart Phones OS.
26	Introduction to programming languages used for app development , introduction to various IDEs used for app development.
27	Working on Hello world program and various GUI components.
28	Working with button events , edit text events.
29	Working with switching activities in android and GUI development, Introduction to SQLite Database.
30	Introduction to various broadcast receiver of android, Security issues are over broad cast receiver. Introduction to GCM technology.
31	Introduction to cloud and hosting servers .
32	Introduction to Various API and there Architecture.
33	Sending data from android through the API link to Server .
34	Receiving the data through server receiving API of Server or Cloud
35	Integrating raspberry pi board to the server using API.
36	Receiving and manipulation of response of server .
37	Integrating raspberry pi board to the server using API .
38	Receiving and manipulation of response of server
39	Integrating input and output console of Raspberry pi board with server input and outputs.

Fees Structure & Duration :-



**Summer Internship 2018 (Student From Various Colleges such as
COEP, IIT Nagpur, PRMITR, PRCEAM, HVPM COET, G.H.Raisoni)**



STTP Workshop 2018 at P.R.Pote (Patil) Engg



RC Plane & Drone Workshop 2017 at P.R.Pote (Patil) Engg



IOT & Raspberry Pi Workshop At Ram Meghe Institute of Tech.Badnera



Our MOU Partner



**Ram Meghe Institute of Technology
&
Research, Badnera-Amravati**



**P.R.Pote (Patil) College of Engg.
&
MGMT, Amravati**



Government Polytechnic, Arvi



Government Polytechnic, Amravati



**H.V.P.M College of Engg. & Tech.
Amravati**



**Matoshri Vimlabai Jr College, Amravati
&
Independent Jr College Rural Institute,
Amravati**

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