



Internet of Things

Training + Internship Brochure

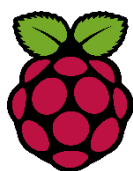
What is Internet of Things?

The Internet of things is the extension of Internet **connectivity** into **physical devices** and everyday objects. **Embedded** with electronics, Internet connectivity, and other forms of hardware, these devices can communicate and interact with others over the Internet, and they can be **remotely monitored** and **controlled**.



What we tend to achieve:

To introduce the students to an embedded world & IoT with the help of **Micro-controller boards, IoT Boards, multiple sensors, Arduino** (Embedded C Programming), **Web Development, APIs &, Cloud Services**.



All Modules are Class Room Activity, Which the student will cover during the regular timings. If they wish to learn more. They will also get free '**Open Development Lab Access**' for free of cost.

Who is this Course For?

Anyone who is interested in learning about the Internet of Things from **LEVEL ZERO** can join the program. Everything is started from scratch, and all the hardware components are provided at Platforuma's Lab.

Break-down for each Session:

- **Theory Sessions:** 20-25 minutes
- **Practical Session:** 40-45 minutes

Program Features:

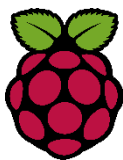
- Learn conveniently in both **Online & Offline Mode**.
- Get guidance on your learning journey with weekly personalised **mentorship** from industry experts.
- Build practical skills with projects and assignments.
- Step ahead in your career with **Career Assistance Services**.
- **One Development Kit per Student** (No-Sharing of kits allowed)
- No kit purchase burden on Student.



What this program helps you to achieve:

- Learn cutting edge technologies from the best in Indore faculty and Industry experts.

- Lead and contribute to digital transformation projects in the areas of **Cloud Computing, Automation** and **IoT** at your workplace & Home.
- Acquire **in-demand skills** and build your candidature for high growth roles and leading technology companies.
- Crack **technical interview rounds** easily during placement & internships.



Google Cloud Platform



Content Description:

Elements	Beginners	Intermediate	Professional
Duration	4 Weeks	8 Weeks	12 Weeks
Industrial Revolution	Explained	Explained	Explained
Computer Network	Explained	Explained	Explained
Language	Embedded C	Embedded C	Embedded C
	-	-	Python
Micro-Controllers	Arduino UNO R3	Arduino UNO R3	Arduino UNO R3
	Node-MCU	Node-MCU	Node-MCU
	-	ESP 32	ESP 32
Micro-Processors	-	-	Raspberry Pi
Digital Sensors	LED	LED	LED
	-	RGB Strip	Buzzer
	-	Buzzer	
Analog Sensors	Photo Sensor	Photo Sensor	Photo Sensor
	DHT-11	DHT-11	DHT-11
	-	Soil Moisture	Soil Moisture
Camera	-	-	Pi Camera
Displays	LCD 16*2	LCD 16*2	LCD 16*2
	-	I2C Module	I2C Module
Wireless Sensors	Bluetooth	Bluetooth	Bluetooth
	-	GPS	GPS
Actuators	Relay Module	Relay module	Relay
	-	Motor Pump	Motor Pump
Communication protocols	Serial (UART)	Serial (UART)	Serial (UART)
	-	I2C	I2C
Network Protocols	HTTP	HTTP	HTTP
	-	HTTPS	HTTPS
	-	MQTT	MQTT
Web Cloud Platforms	Thing Speak	Thing Speak	Thing Speak
	-	Adafruit IO	AWS IoT Core
	-	-	Google IoT Core
Analytics	-	Basic	Advance
Mobile Cloud Platforms	Blynk	Blynk	Blynk
	-	Cayenne	IFTTT
Third Party Service	-	IFTTT	
Mobile App Development	-	MIT App Inventor	MIT App Inventor
Web App Development	HTML/CSS	HTML/CSS	HTML/CSS
	-	-	Django Server
API Integration	-	Weather API	Weather API
			Custom API
Internship	-	Depending on Performance	Assured
Certification	Training Certificate	Training + Internship Certificate	Experience Certificate

- **Computer Networks:**

- Basic Elements of Network
- Types of Network
- Nodes, Router, Modem, Switch
- Network Topologies
- Binary Number System
- IP Address & Fundamentals
- DHCP & DNS Theory
- Everything about the Internet

- **Raspberry Pi:**

- Introduction
- Installation of Raspbian OS
- Configuring the Pi Setup
- Hands-on operations on Linux
- Working with GPIOs using Python
- Camera Interfacing using Python
- Hands-on with sensors and protocols

- **Python Programming:**

- Fundamentals
- Strings, Numbers, Operators
- List, Tuple, Dictionary
- Conditional Statements
- Loops
- Functions

- **IoT Core (Google/Amazon)**

- Data ingesting and processing
- Pub/Sub
- Data Pipe Line
- Cloud Storage
- Device Registry
- Protocol Bridge

Capstone Projects:

These projects will be covered during the session of '**Hands-on sessions on Sensors**'. After learning to interface each sensor, projects related to it will be assigned to every individual in a number of steps to complete the project. Full Assistance and Guidance to complete the project will be provided by the faculty in the classroom.

- ✓ **SMART CITIES**

Smart Home Solutions Build smart home solutions with an ability to control home devices using your smartphone.

- ✓ **SMART CITIES Smart City Track Management Solutions**

Build a connected car ecosystem to effectively manage and streamline your city traffic.

- ✓ **FINANCE & TRANSPORTATION Sharing Economy Solutions**

Bounce Build a sharing economy solution similar to Bounce where users can share/rent others vehicles seamlessly.

- ✓ **SUPPLY CHAIN Aggrotech**

Supply Chain Automation Build a farm-to-fork supply chain automation solution increasing transparency, reducing leakages, etc.

- ✓ **SMART CITIES**

Smart Building Management Sensor based community lighting, water management, connected power and water meters, and access control. Common dashboard, alert notifications, and rule-based management.

- ✓ **TRANSPORTATION Location Dashboard**

Cab Aggregator Large scale location updates ingestion in cloud using server less computing. High-level dashboard and map based live display

S.No.	Beginners	Intermediate	Professional
1	LED pattern	LED pattern	LED pattern
2	Photo-resistor reading in thinkspeak.com	Photo-resistor reading in thinkspeak.com	Photo-resistor reading in thinkspeak.com
3	Web page led controlling	Web page led controlling	Web page led controlling
4	DH11 reading in thingspeak.com	DH11 reading in thingspeak.com	DH11 reading in thingspeak.com
5	Temp. Alert system	Temp. Alert system	Temp. Alert system
6	Bluetooth control home automation	Bluetooth control home automation	Bluetooth control home automation
7	Voice BT controlled home automation	Voice BT controlled home automation	Voice BT controlled home automation
8	App-controlled LED	App-controlled LED	App-controlled LED
9	App control home automation	App control home automation	App control home automation
10	Temp notification alert system in-app	Temp notification alert system in-app	Temp notification alert system in-app
11	Photo-resistor reading in Blynk app	Photo-resistor reading in Blynk app	Photo-resistor reading in Blynk app
12	LIVE Data graphs of the sensors	LIVE Data graphs of the sensors	LIVE Data graphs of the sensors
13		Integration with Google Assistance	Integration with Google Assistance
14		Smart Gardening System	Smart Gardening System
15		Smart Location Tracker	Smart Location Tracker
16		Theft Alert System	Theft Alert System
17		Social media Alert system	Social media Alert system
18			Django Server
19			Database management
20			Google Data Pipe Line
21			AWS Data Pipe line
22			Analytical Flow Charts

Platforuma Advantages:

- **E-PORTFOLIO**
An e-portfolio is a snapshot of all the projects done and skills acquired during the program that is shareable across social media channels. This will help you showcase your expertise to potential recruiters.
- **RESUME BUILDING AND INTERVIEW PREPARATION**
We help you build your resume to highlight your skills and your previous professional experience. You'll also learn to crack interviews with our interview preparation sessions.
- **PLATFORUMA HIRING BOARD**
The program provides candidate's access to the Platforuma Hiring Board. Organizations approach us with job/internship opportunities that are shared through the Hiring Board with our candidates. We've seen over 20+ alumni transitions to the careers of their choice..
- **CAREER GUIDANCE**
Get access to career mentoring from industry experts who've transitioned to roles in the industry. Benefit from their guidance on how to build a rewarding career.

Program Fee:

Elements	Beginners	Intermediate	Professional
Fee	₹ 6000/-	₹ 10,000/-	₹ 18,000/-

**18% GST Applicable*

***Co-ordinate with us for discounts and offers*

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