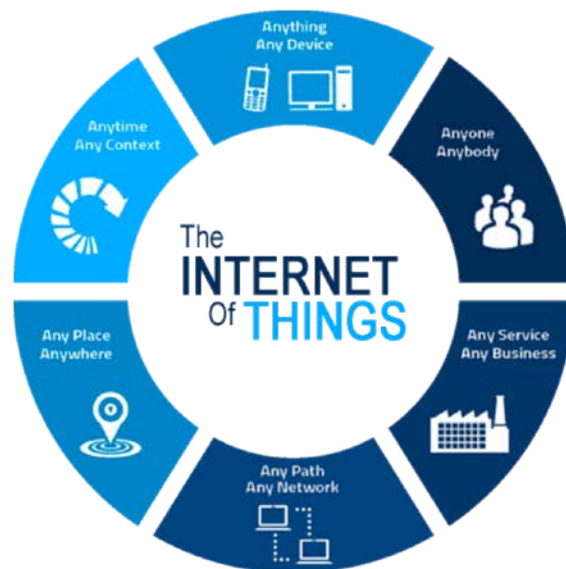


# Certified course on IoT using Python & Cloud Computing (IoTTPCC)



using



python™

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## ABOUT ISM UNIV

ISM UNIV is established in 1994, past 23 years this premier institution has trained over 7000+ Engineers on Embedded Systems and other Software Engineering courses. ISM has carved a nice career for all students, this institution is founded & headed by Mr. LOGANATHAN V he is the CEO of this institutions. Over last 21 years this institution has earned good will and become one of the sought after Embedded and Software Training institution in India. Today we are proud to say we are Ranked #1 Embedded systems & IoT training institute in India. Our Training methods and quality of service are far ahead of our competitors which makes ISM UNIV to be a unique place to fine tune skills.

## ABOUT Certified course on IoT with Python ( IoTGCC )

The Internet of Things (IoT) is generally thought of as connecting things to the Internet and using that connection to provide some kind of useful remote monitoring or control of those things. This definition of IoT is limited, and references only part of the IoT evolution. It is basically a rebranding of the existing Machine to Machine(M2M) market of today. The Internet of Things (IoT) refers to the use of intelligently connected devices and systems to leverage data gathered by embedded sensors and actuators in machines and other physical objects. IoT is expected to spread rapidly over the coming years and this convergence will unleash a new dimension of services that improve the quality of life of consumers and productivity of enterprises, unlocking an opportunity that the GSMA refers to as the 'Connected Life'.

The Internet of Things (IoT) is rapidly evolving There is a need to understand challenges in obtaining horizontal and vertical application balance and the key fundamentals required to attain the expected 50 billion connected devices in 2020.

This course is designed for Engineers having basic knowledge in C Programming to enable themselves to understand and Implement IoT Solutions.

## COURSE MODULES - OUTLINE

1. INTRODUCTION TO IoT?
  - Evolution of Internet
  - IoT for the general world
  - IoT for technology professionals
  - Technical knowhow needed for IoT
  - Embedded Systems
  - What is open source hardware?
  - Arduino
  - Raspberry Pi
  - Beaglebone
  - Intel Galileo
  - ESP8266
2. Sensors and Actuators
  - Sensors
  - Motors
  - Actuator
  - Solenoid valves
  - Power adapters
  - Shields
3. Raspberry Pi
  - Making essential connections
  - Booting up the Raspberry Pi
  - Running simple programs
  - Using Serial Ports & USB
  - Connecting Sensors
  - Connecting Actuators
  - Programming The Drivers for Sensors and Actuators
  - Connecting to Internet via Wifi
4. Arduino
  - Using Arduino IDE
  - Using IO Ports
  - Connecting Sensors
  - Connecting Actuators
  - Running Sample programs
  - Programming The Drivers for Sensors and Actuators
  - Connecting Arduino to Wifi and Internet
5. Python Programming
  - Introduction to Python
  - Getting Started

- Language Basics
  - Functions
  - Collections
  - Modularisation of code
  - Regular Expressions
  - Files and Directories
  - Exception Handling
  - Object Oriented Programming Basics
6. IoT Protocol Suite & Connectivity
- IPv6
  - CoAP
  - MQTT
  - OMA-DM
  - LWM2M
  - Bluetooth
  - WiFi
  - Zigbee
  - NFC
  - Cellular 3G , 4G & LTE
7. Basics of Cloud Computing
- What is Cloud Computing? Why it matters?
  - Traditional IT Infrastructure
  - Cloud Infrastructure and Cloud Advantage
  - Examples of Cloud Advantage
  - Cloud Companies
  - Examples of Cloud Services
  - Use Cases
  - Cloud Segments: IaaS, PaaS, SaaS
  - Cloud Deployment Models
  - Cloud Security
  - Thingspeak cloud connectivity & Configuration
  - AWS IoT cloud Connectivity & Configuration
  - IBM Bluemix connectivity & Configuration
8. Developing an IoT solution
- Setting up the development board – Arduino / Pi
  - Connecting required components
  - Setting up solution design
  - Cloud Connection & Configuration
  - Final implementation

## ELIGIBILITY

Anyone who has basic knowledge on Programming

## VALUE ADDITION (FREE) FOR ALL STUDENTS

1. 02 e-learning courses
2. Soft copy of all software used in the course
3. Access to E-library during course period
4. Aptitude practice sessions
5. Soft-skill sessions

## COURSE FEE

Course Fee: Rs.15000.00+GST

## COURSE DURATION

100 hrs (25 Working days, 1 months)

## COURSE INCLUDES

1. 80% Instructor lead Training ( 80 hrs)
2. 20% Online Training (20 hrs)
3. Course Materials
4. Certificate
5. 100% Genuine Placements
6. Interview Preparations

## ABOUT PROJECTS

The projects will starts from the beginning of the course, the course is completely Project based we tend to Develop a Prototype model of IoT device.

Faculty will act as project guides and supply you required infrastructure to execute the project. Upon Every Project completion students need to present the project demo and submit a short Project report.

The Hardware & Software facilities required to develop the project will be given by the Institute.

## ABOUT PLACEMENTS

We are a proud Institution having helped most of our students in their career building process. We conduct 25 interviews per month and place students. Which is genuinely far ahead of any of our competitors. We have client base across India and abroad, we work with MNC's and MSI, we cater all our clients with trained manpower and we ensure that our client is satisfied with the manpower supplied. We ensure this with Quality training. We provide 100% genuine placement assistance and guidance and help you to begin an innovative career.

We promise you that we provide interviews until you get a job. We have placed 5000+ students so far....

The placement opportunities can be taken by student from beginning of the course depending on their preparedness

Eligibility for Placements:

1. Clearing Technical Evaluation Test
2. Clearing Course Fee

## Clients Who Recruit ISM UNIV Students

			<p>These are few clients who recruit ISM UNIV Students we have client list of 1500+</p>				



INDIA'S LEADING & LARGEST EMBEDDED & IOT TRAINING INSTITUTE

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