SkillsDA®
Center for advance training

GET SKILLED
# BE EMPLOYABLE
IoT Foundation Course

futureskills®
A NASSCOM initiative

PROGRAM OBJECTIVE

Foundational Curriculum for Internet of Things is aimed at upskilling those who have a basic understanding of programming or electronics, to help them expand their knowledge and learn the fundamentals of IoT technologies at a foundation level. This Curriculum has been divided into five modules. While the first is an introductory module, the remaining four each correspond to the different layers of the IoT tech stack.
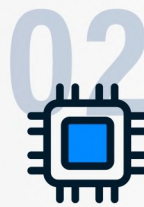
MODULE 01
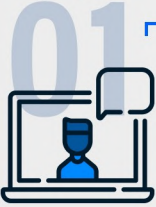
Introduction to IoT

Fundamentals and basic and skills that an individual must possess before being trained on the core concepts of the Internet of Things. IoT stack, Applications, and Data Management - IoT Trends & Applications

Theory: 5 hours

MODULE 02

IoT Devices

Essential knowledge and skills are covered to the aspirants who have to possess before developing embedded devices. The objective of this course is to expose the aspirants and students to understand how important the embedded devices as data acquisition devices are

Theory: 8 hours - Practical: 2 hours

MODULE 03

IoT Networking and Communications

Expertise learnings all about the high priority areas of designing and developing networking and connectivity solutions across the IoT stack.

Theory: 10 hours

MODULE 04

IoT Data Storage and Analysis

Strong learning on the fundamentals of cloud platforms and the basic knowledge and skills that an individual must possess to collect, store and analyze data obtained from disparate sources across the IoT stack.

Theory: 8 hours - Practical: 2 hours

MODULE 05
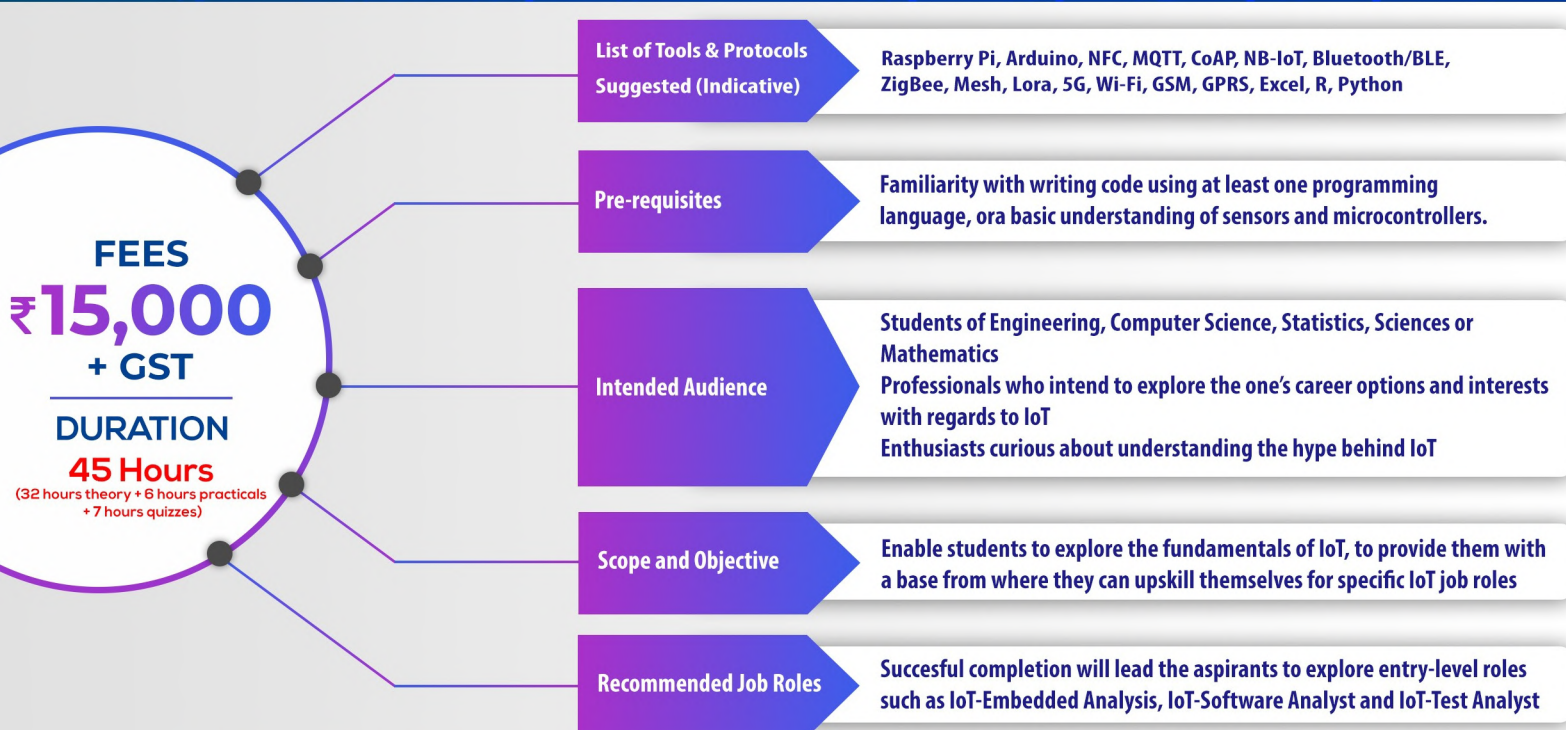
IoT Security and Privacy Theory

Conventional knowledge and skills gaining through this coverage to implement security guidelines and architecture across the IoT solution in a real-time environment

Theory: 8 hours - Practical: 2 hours

WHAT WILL YOU
LEARN ?

- Explain the role of IoT in transforming businesses and customer use cases
- Discussing the key application areas of IoT such as remote monitoring, asset tracking, production optimization, predictive maintenance and the development of new products and services
- Explaining the applications of various components used in IoT solutions such as sensors, actuators, microcontrollers, circuit boards, embedded chips, gateways, cloud platforms, etc.
- Understanding the key areas of IoT network concepts such as gateways, Service-oriented Architecture, interoperability, M2M and network scalability
- Evaluate the various IoT communications protocols and determine best fit for different IoT applications
- Understand key IoT network concepts such as gateways, Service-oriented Architecture, interoperability, M2M and network scalability
- Explain the various layers of the IoT stack and explain what constitutes an IoT architecture
- Discuss the applications of various components used in IoT solutions
- Understand the applications of embedded systems and appreciate the importance of embedded devices as data acquisition devices
- Discuss various IoT communications protocols and determine best fit for different IoT applications
- Discuss the different models of cloud computing
- Discuss the possible uses of analytics solutions to leverage data generated by IoT
- Evaluate the basic principles of security design and architecture and the commonly used methods to mitigate security risks to IoT solutions

FEES
₹15,000
+ GST

DURATION
45 Hours
(32 hours theory + 6 hours practicals + 7 hours quizzes)

List of Tools & Protocols Suggested (Indicative)
Raspberry Pi, Arduino, NFC, MQTT, CoAP, NB-IoT, Bluetooth/BLE, ZigBee, Mesh, Lora, 5G, Wi-Fi, GSM, GPRS, Excel, R, Python

Pre-requisites
Familiarity with writing code using at least one programming language, ora basic understanding of sensors and microcontrollers.

Intended Audience
Students of Engineering, Computer Science, Statistics, Sciences or Mathematics
Professionals who intend to explore the one's career options and interests with regards to IoT
Enthusiasts curious about understanding the hype behind IoT

Scope and Objective
Enable students to explore the fundamentals of IoT, to provide them with a base from where they can upskill themselves for specific IoT job roles

Recommended Job Roles
Succesful completion will lead the aspirants to explore entry-level roles such as IoT-Embedded Analysis, IoT-Software Analyst and IoT-Test Analyst

Quizzes/Knowledge Check 450+ | Access Duration: One Year from the date of registration
Certification will be awarded for the successful completion of the program

INGU's Knowledge Academy Pvt. Ltd
(ISO Certified Cyber Security Training Center)
Plot # 193, Nehru Nagar 1st Main Road, OMR Kottivakkam, Chennai – 600096

☎ +91 9090599696   ✆ enquiry@skillsda.com | www.skillsda.com   f ⊙ ⨁ in ▶