



IOT BOOTCAMP WITH SECURITY ESSENTIALS

IoT Bootcamp with Security Essentials is a specialized training program that combines foundational IoT concepts with a strong emphasis on security practices. This bootcamp covers core IoT topics such as architecture, device connectivity, sensors, communication protocols, and data management, while also addressing the critical security challenges associated with IoT deployments.

Participants learn how to identify and mitigate vulnerabilities, implement secure communication protocols, and protect data from unauthorized access. The program includes hands-on labs, teaching best practices for IoT security. By the end of the bootcamp, attendees gain practical skills to develop, deploy, and maintain secure IoT solutions in real-world environments.



Objectives

- Understanding IoT Fundamentals
- Learning IoT Architecture and Protocols
- Exploring IoT Use Cases and Industry Applications
- Hands-On Experience with IoT Hardware and Software
- Developing IoT Applications
- Understanding IoT Security and Privacy



Expected Outcomes

- Foundational Understanding of IoT
- Discuss on IoT ecosystem, architectures and case studies
- Develop skills that are necessary in designing, building, testing and implementing a secured IoT based prototype, product/ solution

Duration

5 days

- **2 Days:** Online (Virtual Instructor Led Training Program
- **3 Days:** Physical Training & CTF Participation

Dates

- **Online :**
21st to 22nd November 2024
- **Physical :**
2nd to 4th December 2024

Note : Top 30 Students will be called for Physical Training

Participant Prerequisites

- Working with Microcontroller based development boards.
- Data Communications and Networking
- Basic understanding of Wireless Communication

Modules/Topics to be Covered

- IoT Architecture
- IoT Case studies
- IoT Ecosystem
- IoT Communication Technologies which includes LPWAN protocols (LoRa, NB-IoT etc.)
- IoT Networking, Application Layer protocols and Cloud Platforms
- I-P-P model (Idea to Prototype to Product)
- IoT Security Perspective

Target Participants

Students

Expected No. of Participants

30

Mode of Delivery

**Essentials Module: Online
Bootcamp : Physical**

Process Flow



Step 1

Enroll in the course



Step 2

Complete the essentials module (online)



Step 3

Complete the assessment (Online)



Step 4

Join us for the Bootcamp (Physical)



Step 5

Completion Certificate

Coordinated by

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Register at : ▶▶▶▶

<https://bootcamps.isea.app/register>

Conducted by

