



Communicate. Collaborate. Create.

IoT Workshop details

Trainer	Trainer has 7+ years of experience in building "IoT" from scratch.	Team
		Department: INTERNET OF THINGS
		Point Person: Anvesh
Bootcamp	<ul style="list-style-type: none">• Workshop for 2 days• Workshop for 3 days• Workshop for 5 days	Contact Details
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Curriculum for 2 days workshop

Topic

Day 1

1. Introduction to IoT: Explaining the concept of the Internet of Things and its applications in everyday life.
2. Sensors and Actuators: Understanding the role of sensors and actuators in IoT devices.

3. Hands-on Activity: Building a simple circuit using sensors and LEDs to understand the basic principles of IoT.
4. IoT in Action: Exploring real-life examples of IoT devices and their impact on various industries.
5. Designing Smart Home: Introducing the idea of a smart home and brainstorming ideas

Day 2

1. IoT Platforms: Introducing popular IoT platforms like Arduino and Raspberry Pi.
2. Programming Basics: Learning the basics of coding and understanding how it is used in IoT projects.
3. Hands-on Activity: Programming a simple IoT project using block-based programming tools like Scratch or PictoBlox.
4. Data and Connectivity: Understanding data transmission and connectivity protocols in IoT.
5. IoT Project Showcase: Presenting individual or group projects developed during the workshop to peers, teachers, and parents.

Certification

Arc Lab certification	Certification will be provided by the company to individual students and also Merit certificate will be provided to those who performed well in the workshop
Ministry of education	Certification from the central govt will also be provided to add more value to the certificate

Curriculum for 3 days workshop

Topic

Day 1

1. Introduction to IoT: Explaining the concept of the Internet of Things and its applications in everyday life.
2. Sensors and Actuators: Understanding the role of sensors and actuators in IoT devices.
3. Hands-on Activity: Building a simple circuit using sensors and LEDs to understand the basic principles of IoT.
4. IoT in Action: Exploring real-life examples of IoT devices and their impact on various industries.

5. Designing Smart Home: Introducing the idea of a smart home and brainstorming ideas for creating a smart home project.

Day 2

1. IoT Platforms: Introducing popular IoT platforms like Arduino and Raspberry Pi.
2. Programming Basics: Learning the basics of coding and understanding how it is used in IoT projects.
3. Hands-on Activity: Programming a simple IoT project using block-based programming tools like Scratch or PictoBlox.
4. Data and Connectivity: Understanding data transmission and connectivity protocols in IoT.
5. IoT Project Development: Assisting students in developing their own IoT projects with personalized guidance.

Day 3

1. IoT Project Refinement: Assisting students in improving and polishing their projects with troubleshooting and debugging techniques.
2. Hands-on Activity: Continued project development with regular check-ins and feedback sessions.
3. IoT Project Showcase: Presenting individual or group projects to peers, teachers, and parents.
4. Reflection and Feedback: Encouraging students to reflect on their learning journey and providing constructive feedback.
5. Future of IoT: Exploring exciting advancements in IoT and discussing potential career paths in the field.

Certification

Arc Lab certification

Certification will be provided by the company to individual students and also Merit certificate will be provided to those who performed well in the workshop

Ministry of education

Certification from the central govt will also be provided to add more value to the certificate

Curriculum for 5 days workshop

Topic

Day 1

1. Introduction to IoT: Explaining the concept of the Internet of Things and its applications in everyday life.
2. Sensors and Actuators: Understanding the role of sensors and actuators in IoT devices.
3. Hands-on Activity: Building a simple circuit using sensors and LEDs to understand the basic principles of IoT.
4. IoT in Action: Exploring real-life examples of IoT devices and their impact on various industries.
5. Designing Smart Home: Introducing the idea of a smart home and brainstorming ideas for creating a smart home project.

Day 2

1. IoT Platforms: Introducing popular IoT platforms like Arduino and Raspberry Pi.
2. Programming Basics: Learning the basics of coding and understanding how it is used in IoT projects.
3. Hands-on Activity: Programming a simple IoT project using block-based programming tools like Scratch or PictoBlox.
4. Data and Connectivity: Understanding data transmission and connectivity protocols in IoT.
5. IoT Project Development: Assisting students in developing their own IoT projects with personalized guidance.

Day 3

1. IoT Project Refinement: Assisting students in improving and polishing their projects with troubleshooting and debugging techniques.
2. Hands-on Activity: Continued project development with regular check-ins and feedback sessions.
3. IoT Project Showcase: Presenting individual or group projects to peers, teachers, and parents.
4. Reflection and Feedback: Encouraging students to reflect on their learning journey and providing constructive feedback.
5. Future of IoT: Exploring exciting advancements in IoT and discussing potential career paths in the field.

Day 4

1. IoT and Environmental Monitoring: Exploring the use of IoT in environmental monitoring and sustainability.
2. Smart Agriculture: Discussing the application of IoT in agriculture and its impact on food production.

3. Hands-on Activity: Designing and implementing an IoT project related to environmental monitoring or agriculture.
4. Data Analysis: Introducing basic data analysis techniques to interpret and visualize data collected by IoT devices.
5. Project Enhancement: Assisting students in enhancing their IoT projects with

Day 5

1. IoT Security: Understanding the importance of IoT security and discussing best practices for secure IoT deployments.
2. Industry Applications: Exploring IoT applications in various industries, such as healthcare, transportation, and manufacturing.
3. Final Project Refinement: Assisting students in finalizing and refining their IoT projects for the showcase.
4. IoT Project Showcase: Presenting the final projects to peers, teachers, and parents.
5. Recap and Q&A: Reviewing workshop concepts, addressing any remaining questions or concerns, and providing additional resources for continued learning.

Certification

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NOTE: The syllabus is designed to cater to young children, considering their age cognitive abilities, and engagement level. The workshop duration and topics can be adjusted based on the school's requirements and the specific age group of the participants. The focus is on hands-on activities, creativity, and interactive projects to foster a fun and engaging learning environment, enabling children to explore the possibilities of IoT in a practical and exciting way.