INTRODUCTION TO IOT FOR ENGINEERS: COMPREHENSIVE BEGINNER'S TRAINING WITH HANDS-ON

#### **Overview:**

Embark on an enriching journey into the world of the Internet of Things (IoT) with our comprehensive introductory training program. Designed for engineers new to IoT, this course provides an in-depth understanding and hands-on experience covering a wide spectrum of IoT concepts.

 Program ID
 : *TG-IOT0103* 

 Duration
 : *3 days* 

 Time
 : 9 a.m. -5 p.m.

In-house training is available on request.

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## **KEY MODULES**



## PROGRAM HIGHLIGHTS:

#### COMPREHENSIVE LEARNING MATERIAL:

Access a rich learning environment with in-depth content, practical examples, and case studies.

#### INTERACTIVE WORKSHOPS:

Participate in hands-on workshops that complement theoretical knowledge, ensuring a well-rounded understanding of IoT concepts.

# CERTIFICATE OF COMPLETION:

Receive a certificate showcasing your comprehensive knowledge in IoT and your ability to apply these concepts in real-world scenarios.

#### 5. Gain Insights into IoT Security and Privacy Challenges:

Explore the security and privacy challenges inherent in IoT systems. Understand common threats, vulnerabilities, and authentication mechanisms to ensure the secure operation of IoT devices.

#### 6. Acquire Hands-on Experience with IoT Device Setup:

Develop practical skills by setting up and configuring IoT devices. Gain hands-on experience in interacting with these devices through mobile apps and web interfaces.

## 7. Explore Real-World Use Cases of IoT Applications:

Understand the practical applications of IoT in different industries such as healthcare, agriculture, smart cities, and transportation. Explore case studies to gain insights into successful IoT implementations.

#### 8. Discuss Future Trends and Advancements in IoT Technology:

Engage in discussions about the future of IoT, exploring emerging technologies, the impact of AI and machine learning, and ethical considerations and sustainability in IoT development.

Embark on Your IoT Journey!

#### 1. Understand Basic IoT Concepts: Grasp the fundamental principles and concepts that underlie the Internet of

Things, laying a solid foundation for your exploration into this transformative technology.

## 2. Identify IoT System Components and Architecture:

Gain the ability to identify and comprehend the components and architecture of IoT systems, from sensors and actuators to cloud platforms and communication protocols.

## 3. Explore IoT Devices and Their Functionalities:

Dive into the world of IoT devices, exploring different types such as wearables, smart home devices, and industrial IoT devices. Understand the functionalities and applications of these devices in real-world scenarios.

## 4. Learn Data Collection, Analysis, and Visualization in IoT:

Acquire essential skills in data management by learning how to collect, analyze, and visualize data in IoT applications. Understand the significance of real-time data processing in various engineering contexts.