



**SAINTGITS**  
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# SAINTGITS COLLEGE OF APPLIED SCIENCES PATHAMUTTOM, KOTTAYAM

## Internet of Things

**Course Code: VCIOT013**

**Course objective:** The learner will understand key terms and concepts in IoT, IoT sensors and its applications.

**Module-1:** IoT Introduction –

Definition, Features, Advantages, Disadvantages, standard devices, Sensors- Different types, various forms of sensor data, Introduction to Big Data and cloud Computing.

**Module-2:** IoT Architecture and working -

IoT hardware – sensors, wearable electronics and standard devices. Software – data collection, integration, real time analysis

**Module-3:** IoT Technology and Protocols –

RFID, NFC, low-energy Bluetooth, low-energy wireless, low-energy radio protocols, LTE-A, and Wi-Fi-Direct.

**Module-4:** IoT Applications, Challenges and Security Issues -

Government, Healthcare, Industry, Environmental Monitoring, Transportation, Smart Home, Smart Grid.

Security Issues- Privacy, Authentication, Hardware, Software.

**References:**

1. Title - Designing the Internet of Things  
Author - Adrian McEwen & Hakim Cassimally  
Publishers - John Wiley and Sons Ltd
2. Title - INTERNET OF THINGS, A Hands-On Approach  
Author - Arshdeep Bahga and Vijay Madisetti  
Publisher - Arshdeep Bahga and Vijay Madisetti

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