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About

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Chapter 1: Getting started with iot

Remarks

The internet of thing (IOT) is the inter-connected of physical devices such as power plug, temperature sensors. These devices attached network module (Wifi, 3G or 4G) can extend the connectivity to internet. A bidirectional communication can be established once the device connected.

The devices can push the data to web and we can send control commands to the devices. Sensor network, Home Automation, and Smart Cities are the use cases in IOT industry.

There are some protocols like ZigBee, MQTT also related to IOT segment. Raspberry Pi, Aurdio, NXP and dragon-board boards can be used for prototype or development.

Examples

Installation or Setup

Detailed instructions on getting iot set up or installed.

Read Getting started with iot online: https://riptutorial.com/iot/topic/9495/getting-started-with-iot

Chapter 2: IoT Protocols

Introduction

Protocols which can be used in the IoT projects which would help to communicate between the IoT devices/IoT Clients.

Examples

MQTT

MQTT is an publish/subscribe "lightweight" messaging protocol for use on top of the TCP/IP protocol.

CoAP

CoAP(Constrained Application Protocol) provides a request/response interaction model between application endpoints typically used along with REST.RFC

Read IoT Protocols online: https://riptutorial.com/iot/topic/10917/iot--protocols

Chapter 3: Platforms

Introduction

In simple words the purpose of any IoT device is to connect with other IoT devices and applications (cloud-based mostly) to relay information using internet transfer protocols.

The gap between the device sensors and data networks is filled by an IoT Platform.

Examples

Kaa

Kaa is a good example of OpenSource IoT Platforms, it provides a data collection, notification and device to device communication for you.

Language	Connectivity Protocols
Java	Kaa Protocol (KP) over MQTT, CoAP and TCP

Kaa device to device communication is based on Events and you can send events even into server instead of devices. as its documentation says:

> The Kaa Events subsystem is designed to generate endpoint events in real time, send them to other endpoints of the same owner and to Kaa server for processing.

Read Platforms online: https://riptutorial.com/iot/topic/10538/platforms

Credits

S. No	Chapters	Contributors
1	Getting started with iot	Community, neuropaddy
2	IoT Protocols	Siva Karthikeyan
3	Platforms	Parham Alvani