

Introduction

This workshop will be instrumental in understanding the potential of Internet of Things and the LoRaWAN protocol. It covers how to work with the technology and also about the architectural principles to put things in perspective of other technologies. During the workshop, participants can gain knowledge on how to quickly build solutions with a comprehensive, step by step prototyping approach.

What is LoRa?

LoRa Long Range (& Low Power) is a wireless communication technology developed to create the low-power, wide-area networks (LPWANs) required for machine-to-machine (M2M) and Internet of Things (IoT) applications.

What is The Things Network?

The Things Network is an open Internet of Things infrastructure supported by its members. Members contribute by placing gateways or running network servers. Together we create a secure and redundant collaborative network. The Things Network is growing towards a robust and stable global network, providing connectivity where it is needed.

Some of the topics covered in our LoRa workshop:

- What is LoRa and how it fits into IoT
- LoRa implementation methods
- What is "The Things Network" (TTN)
- How to setup an application on TTN
- How to build a node (device) which connects to TTN via LoRa
- How to monitor LoRa traffic data

- How to use the LoRa console to manage your applications & devices

By the end of the workshop, you will have a firm understanding of LoRa from a makers perspective and have created a node that is connected to the "The Things Network" (TTN) which sends data into the cloud.

References:

1. The Things Network - <https://www.thethingsnetwork.org> [1]
2. Github - The Things Network - <https://github.com/TheThingsNetwork> [2]
3. LoRa Technology - <https://www.semtech.com/technology/lora> [3]
4. LoRa Alliance - <https://www.lora-alliance.org/technology> [4]

Resource Person

Mr. Karthik S Assistant Professor, KCT

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<https://www.mypadnow.topteacher.com/icssc2019/lora-%2B-the-thing-network>

Links

[1] <https://www.thethingsnetwork.org>

[2] <https://github.com/TheThingsNetwork>

[3] <https://www.semtech.com/technology/lora>

[4] <https://www.lora-alliance.org/technology>