

Problem Solving with the Internet of Things and Python

Unit 1

Why Problem Solving?

“**PROBLEMS**” are everywhere.

As students, engineers, researchers and citizens of the world,
we strive to be part of the **SOLUTION!**

Why the Internet of Things?

- Growing field
- Diverse applications
- Diverse technologies required
- Variety of problems built in to every solution

Why Python?

- High level language with low barrier for entry
- Free, open-source language
- Can be used on many different hardware platforms
- Large number of 3rd party modules exists

Computational Thinking

- Decomposition
- Pattern Recognition
- Abstraction
- Algorithmic Thinking
- Evaluation

Welcome to the course

Let's get started!

Unit 1 Topics

- 1.1 What is IOT? What is a Thing?
- 1.2 IOT Connectivity
- 1.3 IOT Communication Protocols
- 1.4 IOT Services
- 1.5 IOT Security

More resources

<https://robotresources.com/blog/2018/11/3/what-is-computational-thinking>

<https://www.bbc.co.uk/bitesize/topics/z7tp34j>

[Computational Thinking Video](#)