

# Welcome

Credits:  
Thomas Amberg, FHNW  
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Marco Zennaro, PhD  
ICTP



# Hello

Marco Zennaro, Research Officer, ICTP

Applied Physics → Telecommunications/ICT4D Lab

Focal Point of the ITU Centre of Excellence in IoT  
and Big Data and Statistics

Visiting Professor at Kobe Institute of Computing in  
Kobe, Japan



# Learning targets

Understanding IoT systems and their fundamental concepts, including the acquisition, transport and visualisation of sensor measurements.

Experimenting with the software part, without electronics, of an end-to-end IoT system based on IoT platforms.

# Today

1/3 Intro to IoT

1/3 Intro to MQTT

1/3 Lab 1: MQTT using a web client

<https://pmanzoni.github.io/KIC2019/>

# Wednesday

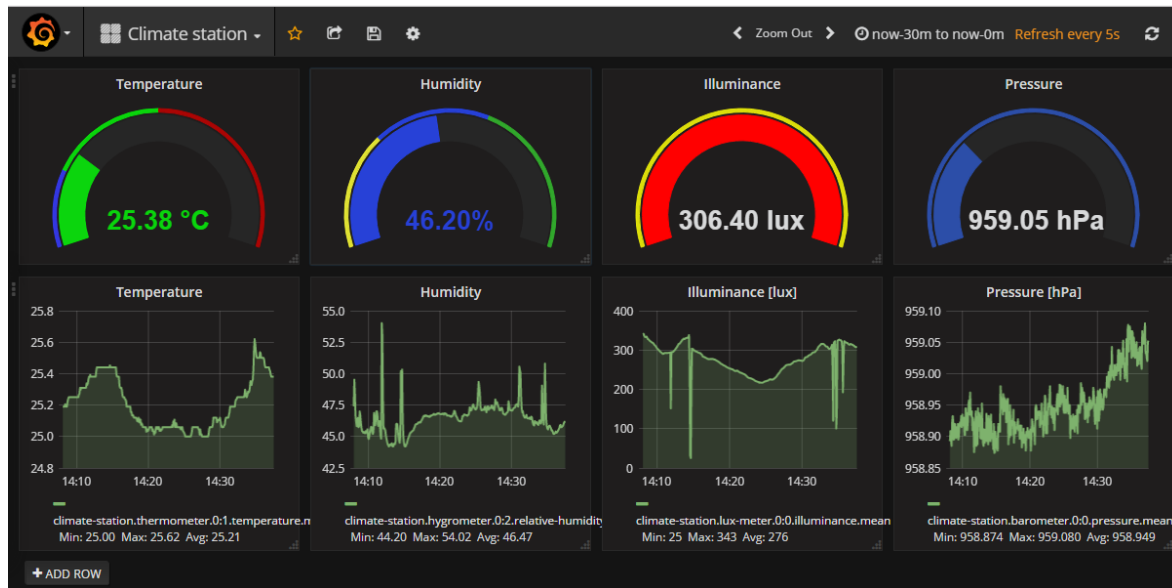
1/3      Intro to TTN and LoRaWAN

1/3      LAB 2: Installing a gateway

1/3      LAB 3: sending sensors data with LoRaWAN  
via TTN to Ubidots

# Friday

## LAB 4: InfluxDB, Telegraf and Graphana



# Hands-on sessions

"Be excellent to each other", asking / helping is OK.

Google error messages to fix issues.

Coping blindly does not lead to new insight.

Reading other people's code helps a lot.

# Books on IoT

A book is not required for this course.

We will read individual articles on demand.

This [Wiki](#) has [a list of books](#) on a range of topics.





# Feedback?

Email me [mzennaro@ictp.it](mailto:mzennaro@ictp.it)