Bienvenidos

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

Have been working in WSN/IoT for 15 years

Hello

Ermanno Pietrosemoli, Researcher, ICTP

Applied Physics → Telecommunications/ICT4D Lab

2017 Internet Hall of Fame

President ESLARED

World Record Longest WiFi link

Hello

Ronald Criollo, Lecturer-Researcher, ESPOL

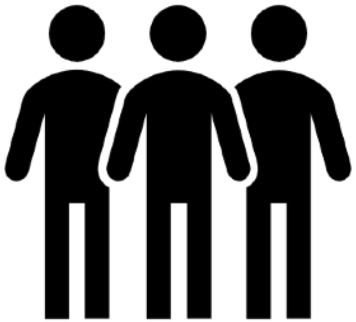
Lecturer at Faculty of Electrical and Computer Engineering (FIEC)

Researcher at Vision and Robotics Center, CVR-FIEC

Instructor at Cisco-ESPOL Academy

Lecturer at Master's Degree in Telecommunications (FIEC) and Master's Degree in Information Technology (UCACUE)

You?

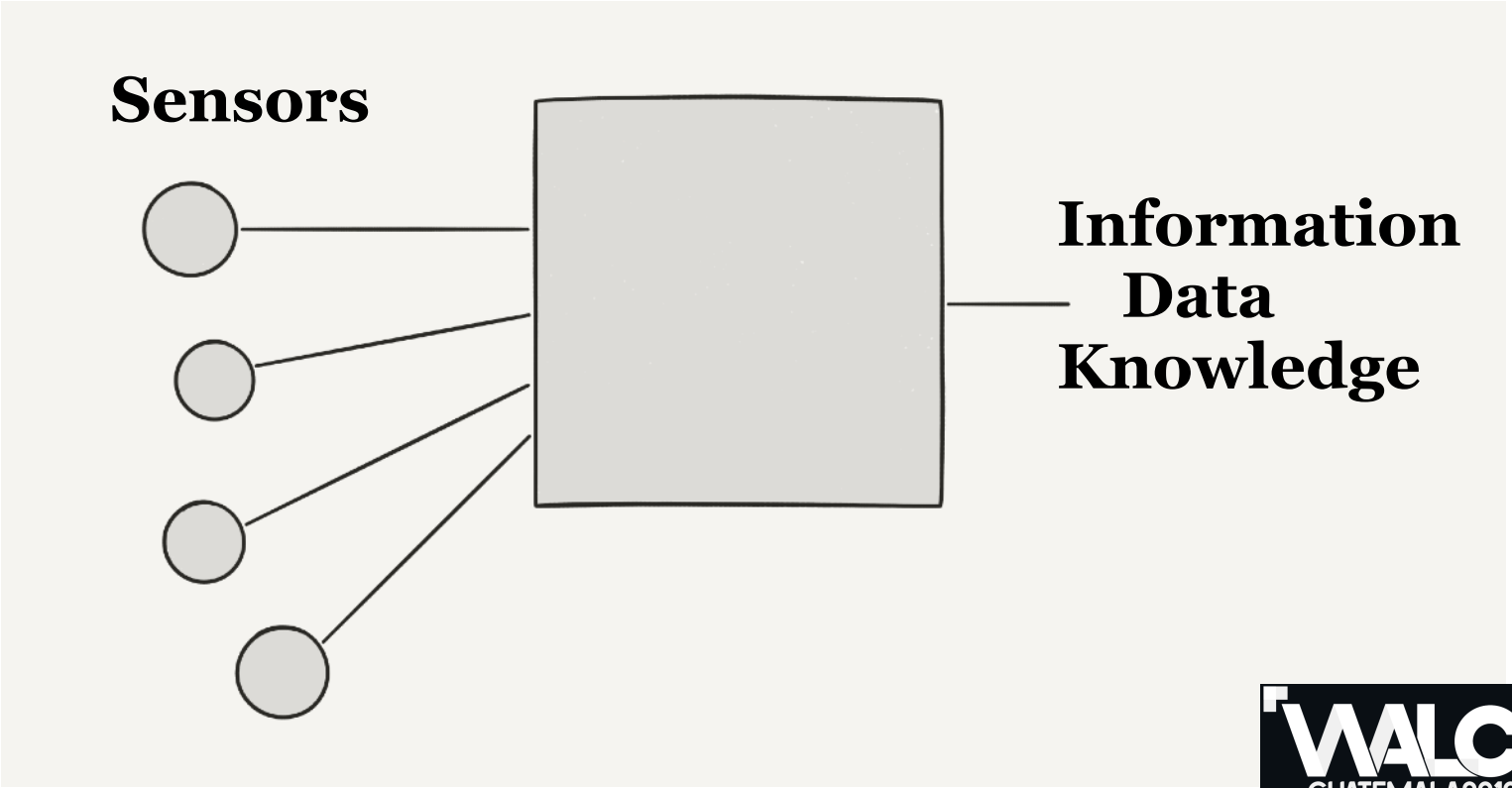


Learning targets

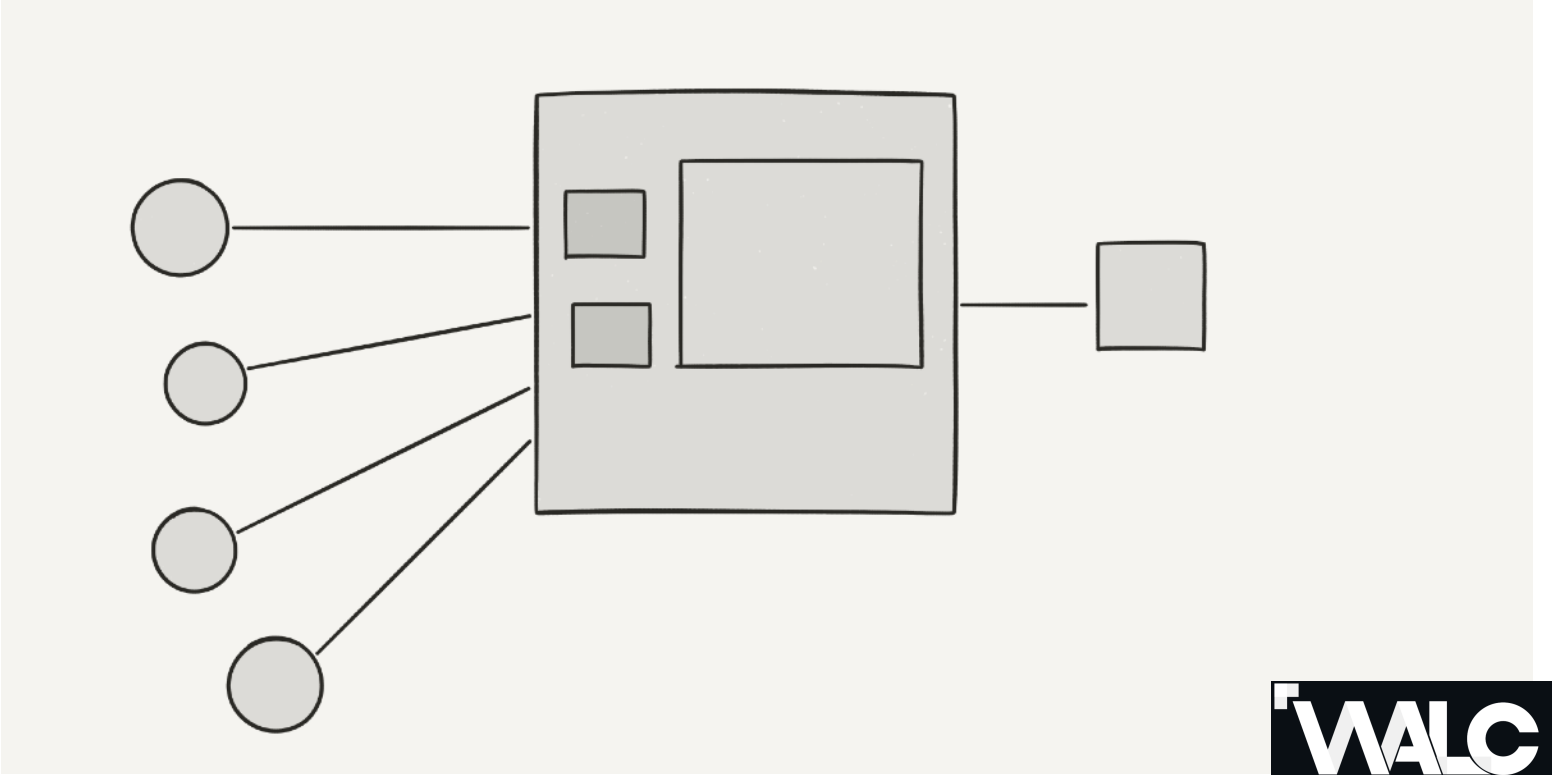
Understanding IoT systems and their fundamental concepts, including the **acquisition**, **transport** and **visualisation** of sensor measurements.

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

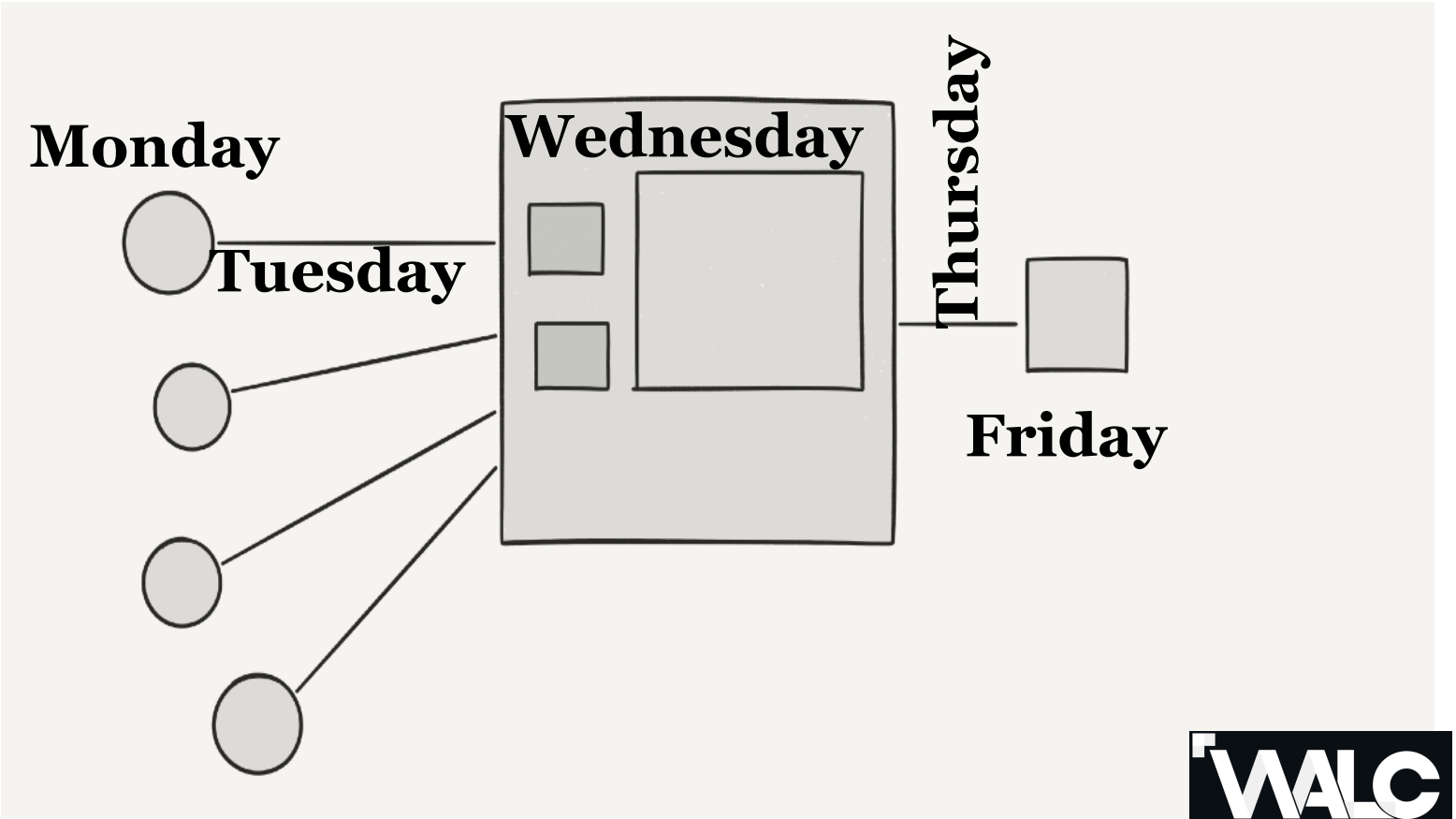
High level view



CS/EE view



Our workshop



Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00 - 09:00	Registration	Wireless standards for IoT: WiFi, BLE, SigFox, NB-IoT and LoRa (EP) Laboratory (CC-24)	Radio Link Planning (EP) Laboratory (CC-24)	Energy resources for IoT (EP) Laboratory (CC-24)	IoT Applications (EP) Laboratory (CC-24)
09:00 - 10:00	Opening				
10:00 - 10:30	**Coffee Break**				
10:30 - 11:30	Introduction to Workshop (RC) Laboratory (CC-24)	Introduction to MQTT (MZ) Laboratory (CC-24)	Official event photo	**Lab. Session #6** (MZ, EP, RC): Sending temperature through TTN Laboratory (CC-24)	RPiDC: a data center in a RPi (RC) Laboratory (CC-24)
11:30 - 12:30	Introduction to IoT (MZ) Laboratory (CC-24)	**Lab. Session #2** (MZ, EP, RC): MQTT in practice using Mobile Apps Laboratory (CC-24)	Introduction to The Things Network TTN (RC) Laboratory (CC-24)		
12:30 - 14:00	**Lunch**				
14:00 - 14:45	Introduction to python & micropython (RC) Laboratory (CC-24)	**Lab. Session #3** (MZ, EP, RC): MQTT + lopys + Raspberry Pi Laboratory (CC-24)	**Lab. Session #5** (MZ, EP, RC): Sending temperature through TTN Laboratory (CC-24)	**Lab. Session #7** (MZ, EP, RC): TTN Mapping Laboratory (CC-24)	**Lab. Session #9** (MZ, EP, RC): Installing RPiDC Laboratory (CC-24)
14:45 - 15:30					
15:30 - 16:00	**Coffee Break**				
16:00 - 17:00	**Lab. Session #1** (MZ, EP, RC): pycom intro Hello World reading sensors Laboratory (CC-24)	**Lab. Session #4** (MZ, EP, RC): storing data in the flash Laboratory (CC-24)		**Lab. Session #8** (MZ, EP, RC): TTN Mapping Laboratory (CC-24)	Surveys and Diploma delivery Laboratory (CC-24)
17:00 - 18:00					Closing

WALC GUATEMALA2019 ICTP

GitHub

All material (slides, code, examples) will be available on this repository:

https://github.com/marcozennaro/walc2019

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 workshop.

This Wiki has a list of books on a range of topics.

Feedback?

Email us

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