# Projects related to Embedded Systems and IoT



### Luca Pezzarossa – lpez@dtu.dk

Embedded System Engineering - DTU Compute

#### **Projects with Microchip**

## **Setting up HSM based signing flow with TF-A**

Support signed firmware images using

a private key. When booting, the image is authenticated using public key to ensure that only the owner the board can issue SW that will run on the board.

#### Add OP-TEE support to TF-A on LAN9662/ARMv7

Explore the use of secure vs. non secure OS. Using the OP-TEE technology to create a proof-of-concept application. This project requires some security knowledge and is a mix between theory and hands on.

#### Build a browser-based DDR based tuning/training application

Very small application that can run SRAM and do DDR memory tuning by exposing 30 pentameters from a driver.

#### Develop Python based test framework for EasyTest setups

Use Python to create a testing framework to automatically run tests of the developed software and hardware.

More is available...

#### **Internet of Things at DTU**

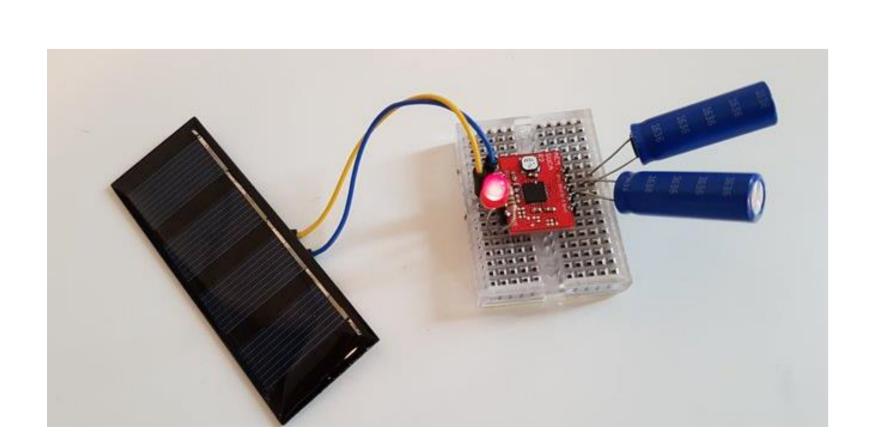




#### Project related to:

- drones, energy harvesting
- intermittent computing
- sensing nodes







#### Other companies offering projects





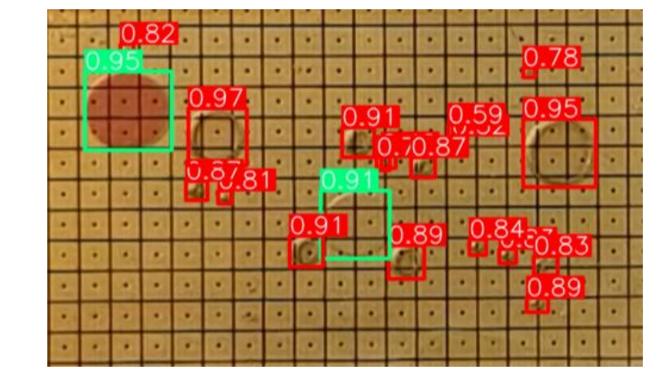


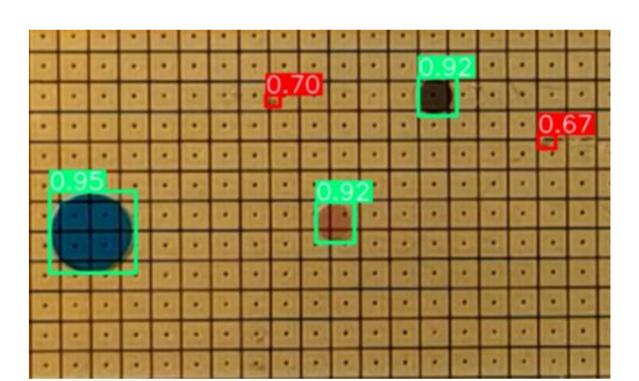
Project related to network solutions, hardware, firmware and software development.

#### **Embedded systems at DTU**

#### Al computer vision solutions

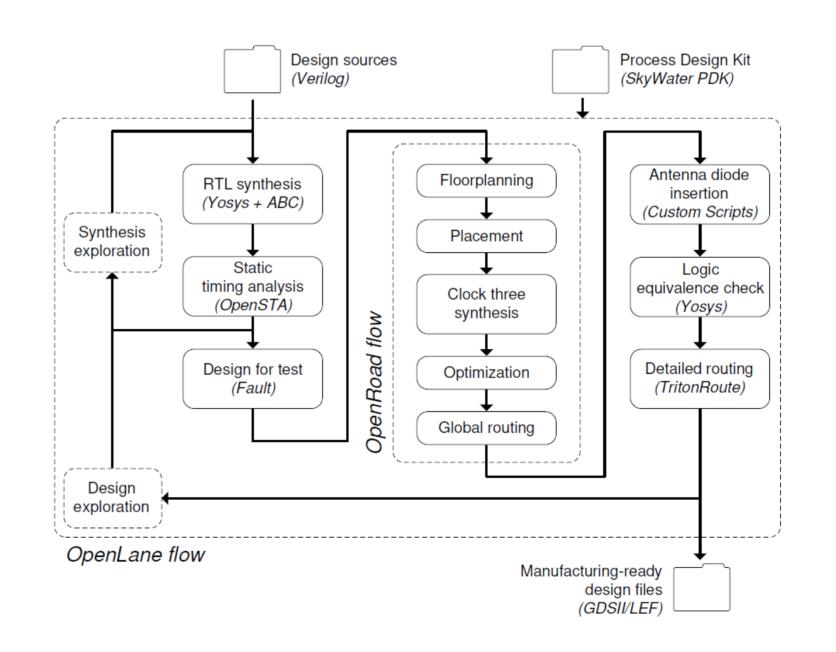
Use computer vision and AI to detect droplets, bubbles, and other objects in digital microfluidics.

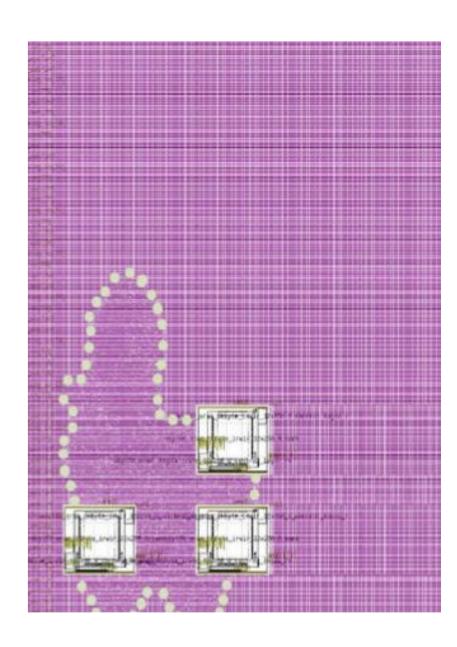




#### Open-source chip design

Explore the tool-chain to design and implement a hardware design in open-source.





#### Digitalization of biology samples

Help develop an app or a device to digitalize sample parameters in a biology context (e.g., color).

