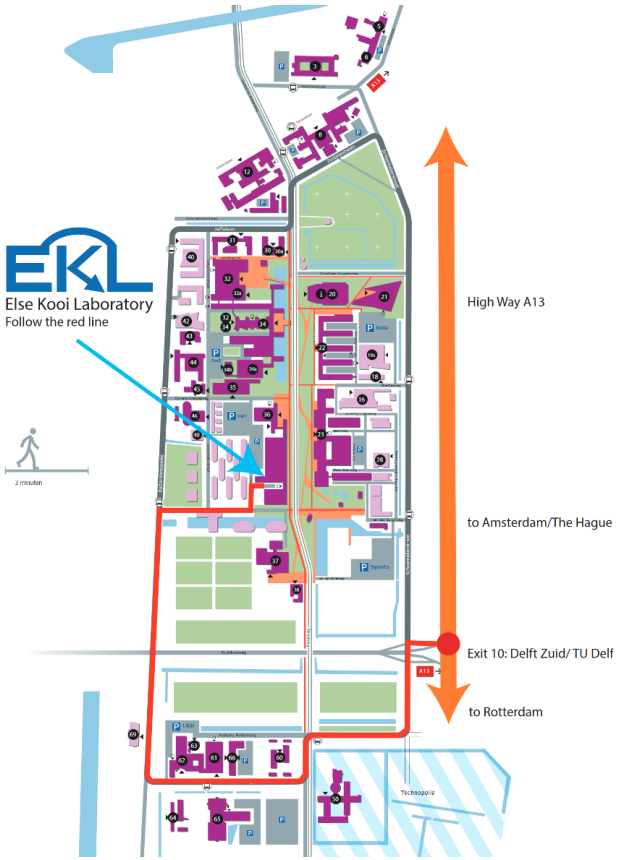
Location

The IoSense Spring School will take place TU Delft, Feldmannweg 17, 2628 CT Delft, The Netherlands Building EWI (36) Room: EKL Colloquium room – EKL 01.180 (1st floor).



Short Facts

Date: March 7, 2019

Intended audience: IoSense project members and interested third parties with relevant backgrounds

Estimated number of participants: 40-50

Equipment: Projector, internet connection

Event Web page: `http://iosense.eu/index.php/project/iosense-spring-school19/`

Address: TU Delft, Feldmannweg 17, 2628 CT Delft, The Netherlands Building EWI (36) Room: EKL Colloquium room – EKL 01.180 (1st floor).

Registration Fee: Zero €

Registration Procedure: For registration write an email to: mariam.zia@tu-dresden.de

Deadline to register: Jan 31st 2019

The project IoSense is funded by the European Union within the ECSEL Joint Undertaking programme and is co-founded by grants from Austria, Belgium, Germany, Netherlands, Slovakia, Spain. It is coordinated by Infineon Technologies Dresden GmbH, Königsbrücker Str. 180, 01099 Dresden, Germany. Project Coordinator: Dr. Oliver Pyper e-Mail: iosense@infineon.com

ECSEL Joint Undertaking
Electronic Components and Systems for European Leadership

The IoSense Spring School is organized by TU Delft and TU Dresden.

TU Delft

TECHNISCHE UNIVERSITÄT DRESDEN

IoSense Spring School 2019

March 7, 2019

Overview

The Spring School of the JU ECSEL project IoSense demonstrates how to engineer innovative products in sensor-actuator networks. The IoSense project[1] focuses on the availability of top innovative, competitive sensors and sensor systems "Made in Europe" for "Internet of Sensor" applications in smart mobility, society, energy, health care and production.

Participants are enabled to build platforms and complements for hardware/software ecosystems so that their future applications in the Internet of Sensors become reality. The IoSense Spring School presents newest sensor technologies as well as ways to create innovations with them, extending the value chain with easy-to-build software for sensor applications.

IoSense Spring School

IoSense targets multiple key application areas to help tackle grand societal challenges of our and future generations. Sensor and app-based innovations in areas such as Smart Mobility, Society, Energy, Health and Production, benefit directly from smart sensor-based systems that communicate among themselves, their environment and offer their services to users. A necessity for smart objects and machines are suitable sensors that are intelligently integrated into future products.

IoSense contributions and solutions are realized in different demonstrators, targeting specific application areas.

[1] `www.iosense.eu`

During the Spring School selected demonstrators provides an overview about the goal and the addressed key application areas. Components are presented from project experts. Hands-on sessions will focus on integrating sensor components into a software toolbox to showcase the easy-to-use approach on how to build sensor-based applications. The software toolbox is complemented by illustrating the integration of a lean startup inspired process for developing customer centric products and applications.

Objective

The target of the IoSense Spring School is to show how to engineer innovative products. The goal is to enable IoT ecosystems based on hardware-software platforms and complementing applications for flexible and high-performance data aggregation and processing in sensor-actuator networks. The future technology of IoSense covers

- Innovative sensor and multi-sensor technologies for heterogeneous application areas
- Highlighting new approaches for developing sensors using flexible frontend and backend pilot lines
- Design of sensor and application components for market needs by involving customers early in the development process
- Enabling external parties to build IoT ecosystems with IoSense technology
- Closing the gap between chip manufacturers and application developers for transforming existing value chain approaches

Schedule

The IoSense Spring School will be held on March 07^{th}, 2019 and consists of a full day program.

IoSense Spring School The Spring School starts with a key note session. Technical Talks and demonstrator presentations will follow after that.

Agenda:

09:00 Keynote session
10:30 Talk Session 1
11:00 Demo Presentations 1
11:20 Coffee break
11:40 Talks Session 2
12:10 Demo Presentations 2
12:50 Lunch
13:50 Talk Session 3
14:20 Demo Presentations 3
15:00 Poster session

Talks:

Keynote Session:

- **Development of an Integrated Relative Humidity Sensor in the Framework of the IoSense Project** *Frederik Vanhelmont*, AMS, Netherlands
- **Sensor Integration Developments at TU-Delft** *Kouchi Zhang*, TU Delft, Netherlands
- **Prognostics & Health Management for LED-based Applications** *Prof. Willem Van Driel*, Phillips, Netherlands

Talks:

- Session 1: **Time-of-Flight 3D Imaging and its Field of Appplications**, *Norbert Druml*, Infineon Technologies AG Austria
- Session 2: **Security Concepts Applied in the TrustWorSys Demonstrator**, *Thomas Ulz*, TU Graz, Austria
- Session 3: **A Software Toolkit for Complex Sensor Systems in Fog Environments**, *Thang Phan*, TU Dresden, Germany

Demonstrators:

- Session 1:**TrustWorSys: Secured Smart Production** *Reinhard Kloibhofer*, Austrian Institute of Technology, Austria
- Session 2:
  - **AdCon: Value of IoT Sensors in Energy Efficient Buildings** *Prof. Christian Heschl*, Fachhochschule Burgenland, Austria
  - **Smability: Reliable V2X communication** *José M. Sánchez*, Integrasys, Spain
  - **SeFuProTec: Sensor-Aided Manufacturing Processes for Sensor Assembly** *Dr. Jens Müller*, XENON, Germany
- Session 3:
  - **High Throughput Raman Spectrometer — HiThRaSpect** *Harrie Tilmanns*, IMEC, Belgium
  - **Reconfigurable Instrument Control Unit (R-ICU) use-case: Mars Exploration Rovers** *Marcos Martinez*, Thales Alenia Space, Spain