



# SIE 2021 - Ph.D School - Trieste, July 5-7, 2021

## LECTURES

5G-6G and Internet of Things: an overview	Prof. Fulvio Babich University of Trieste
The logistics of ideas: a technology based approach to strategic IP asset management	Dr. Roberto Castagno Neste
Optical fiber sensing and smart structures	Dr. Daniele Costantini LUNA Innovations Inc.
Bio-inspired electronic systems for biomedics and agrifood	Prof. Danilo Demarchi Politecnico di Torino
Approximate computing in IoT systems	Prof. Maurizio Martina Politecnico di Torino
IoT telecommunications overview and emerging satellite solutions	Prof. Ermanno Pietrosemoli International Centre for Theoretical Physics Fundación EsLaRed
Digital computing platforms for near-sensor processing at the extreme edge of the IoT	Prof. Davide Rossi University of Bologna
Low power techniques for IoT & intelligent distributed systems	Prof. Massimo Ruo Roch Politecnico di Torino
Compressed sensing for IoT: theory, architectures and applications	Prof. Gianluca Setti Politecnico di Torino
Low power wide area networks in unlicensed spectrum	Prof. Lorenzo Vangelista University of Padova
IoT and cybersecurity issues: a real-world case in building automation	curated by DAVE Embedded Systems
IoT product life cycle: market analysis and product requirements; feasibility and execution; technical support	curated by Telit
IoT product life cycle: the role of operations from design to customer	curated by u-blox

## Electronics for IoT

The Ph.D. School of the SIE (“Società Italiana di Elettronica” – “Italian Electronics Society”) is an important event linked to the SIE Annual Meeting.

This year the School focuses on **Electronics for IoT**. The purpose of the school is to provide an overview of the technology, industry, and research in electronics for the Internet of Things. Attention will be devoted also to contiguous disciplines that are fundamental for a fruitful deployment of such networks.

The School will cover different topics of interest to engineers and researchers working on IoT: analog hardware for IoT, power management, distributed intelligent systems, approximate computing and multimedia management, optical fiber sensing and smart structures, bio-inspired electronic systems, digital computing platforms for near-sensor processing. The lectures will also address topics of the telecommunication field necessary to work with IoT, including 5G and low power wide area networks in unlicensed spectrum. The experience of leading IoT industries will also be conveyed to the School.

Given the crosscutting relevance of the topic, the School is expected to be of great interest not only for Ph.D. students dealing with electronics, but also for those involved in similar fields, like telecommunication, electrical, industrial, biomedical, computer science engineering.

The PhD school will be a mixed event: students and professors will be allowed to participate on an online platform or, if conditions allow it, in presence at the University of Trieste.

**If COVID restrictions permit, in presence participation is highly recommended to all PhD Students.**



Ph.D. students and recent graduates are warmly invited to participate to this unique experience. Young researchers, doctors, and company’s R&D staff can also participate.

[sie-2021.units.it](http://sie-2021.units.it)

We look forward to seeing you in Trieste!

*Organizing Chair:* **Alberto Carini**

*Ph.D. School Chairs:* **Alberto Carini, Stefano Marsi, Maurizio Martina, and Massimo Ruo Roch**

*General Chair:* **Giovanni Ghione**

*Local Organizing Committee:* **A. Carini, S. Carrato, S. Marsi, G. Ramponi, L. Tenze, D. Bellini** (webmaster)

## CONTACTS

For info on submission, registration, and sponsorship: [sie-2021@dia.units.it](mailto:sie-2021@dia.units.it)