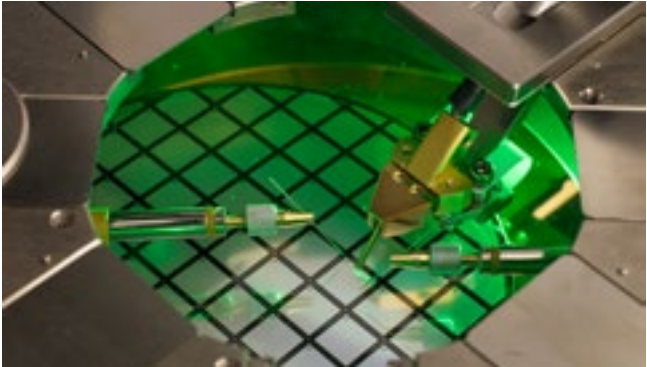




CAS ETH in Applied Electronics and Digitization

The programme provides education in design and development of modern solid state electronic systems, which are foundational for the generation and processing of data in a digital world.

CAS ETH in Applied Electronics and Digitization



Target audience

The CAS is tailored for persons with non-technical background which aim at working effectively with engineering and technical experts related to electronics-based hardware products such as those found at electrified applications, the edge of IoT networks or operating as autonomous devices.

Objectives

The programme is designed to provide a targeted education in the rapidly evolving world of energy and electrification. Participants will learn about the most important processes and technologies related to electronics and how they are being applied in practice.

Modules

1. Fundamentals of semiconductors and electronics

This online module covers the fundamental science and technology underlying modern electronics and prepares participants to better understand the rest of the modules.

2. Semiconductor devices and applications

This module describes semiconductor materials and devices as the fundamental building blocks of modern electronics. The goal is to enable participants to understand and discuss with technical professionals the basic components of modern electronic devices.

3. Integrated circuits

In this concentrated module, we will show the cost performance relationship of digital integrated circuits that are used to build modern processors, and accelerators for machine learning and cryptographic applications.

4. Complex electronic systems

The module focus on the entire life cycle of a full X-ray camera system (detector) from the initial ideas through prototyping to development of a final system that enters the industrial market.

Structure and format

4 modules over 14 weeks from April to July, 2-day blocks every other week. Block format or blended learning. Workload is approximately 300 hours. 12 ECTS credits.

Admission requirements

A Master's level university degree recognised by ETH Zurich and several years of professional experience.

- > Tuition language: English
- > Start: Every Spring Semester
- > Application: 30 November–15 March
- > Programme fee: CHF 8,500
- > Programme Director:
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