Electrical Engineering

Electrical Engineering is a broad multi-disciplinary doctoral programme providing graduates with the ability to work in a variety of fields ranging from traditional electrical engineering and energy sector to biomedical engineering and robotics and nanotechnology and further to communications engineering. Based on a strong mathematical and natural science basis, the curriculum is flexible, allowing each doctoral candidate to compile her/his own combination of courses and research according to her/his own interests. The programme covers all disciplines of the School of Electrical Engineering and allows multi-disciplinary co-operation across Aalto University.

The Aalto Doctoral Programme in Electrical Engineering was established on 1 January 2011. It comprises 24 fields of research. The Programme is a joint effort of the Departments of Electronics and Nanoengineering (ELE), Signal Processing and Acoustics (SPA), Electrical Engineering and Automation (EEA), and Communications and Networking (TLV), as well as the Metsähovi Radio Observatory and Micronova - the Research Centre for Micro- and Nanotechnology.

The degree

The Doctor of Science (Tech) degree is 40 ECTS credits of theoretical studies and dissertation thesis which means four years of full-time studies. The Licentiate of Science (Tech) degree is 40 ECTS credits of theoretical studies and licentiate thesis which means two years of full-time studies. The extent of the licentiate and doctoral degrees consist of theoretical studies and research work. The emphasis is on research work. See more detailed description of the degree.

Research fields in Doctoral Programme in Electrical Engineering

The research field is chosen when applying to the programme. Descriptions of the research field can be found at Degree structure and coursework page.

- Acoustics and Audio Signal Processing
- Advanced materials and photonics
- Applied Electronics
- Automation, Systems and Control Engineering
- Bioelectronics and Instrumentation
- Communications Engineering
- Electromagnetics and Circuit Theory
- Electromechanics
- Electronics integration and reliability
- Illumination Engineering and Electrical Building Services
- Information Theory
- Measurement Science and Technology
- Micro- and Nanoelectronic Circuit Design
- Micro- and nanosciences
- Network Economics
- Networking Technology
- Power Electronics and Electric Drives
- Power Systems and High Voltage Engineering
- Radio Engineering
- Signal Processing for Communications
- Signal Processing Technology
- Space science and technology
- Speech and Language Technology
- User Interfaces

News

Places left in LC-1350 Writing Doctoral Research for Engineering and Science
19.10.2020

Secure Systems Demo Day 2020
19.10.2020

‘LC-0610 Intercultural Communication’ course open to all levels of students
15.10.2020

Muutos kirjojen varauskäytäntöön | Förändringar i reservering av litteratur | Change in the book reservation policy
14.10.2020
Opiskeluhyvinvointisi tukemiseksi (loka-marraskuu) | Stöd för välbefinnande i studierna (oktober och november) | Supporting your study well-being (October and November)
16.10.2020

Useita opiskelijaravintoloita avoinna | Flera studentrestauranger är öppna | Several student restaurants are open
12.10.2020

Aallon internet-yhteyksissä lyhyitä katkoja torstaina 8.10. klo 17-18 / Short breaks in Aalto internet connections on Thu, 8 Oct between 5-6 pm
08.10.2020

Unisport and free InBody measurements & Free visits Wed 7.10.
06.10.2020

Intossa käyttökatko 7.10. klo 8 alkaen | Serviceavbrott i Into 7.10 fr.o.m. kl. 8 | Maintenance break on Into 7 October starting at 8 am
02.10.2020

Jaa havaintosi tulevaisuuden kampuksesta - Share your thoughts on the future of campus life
30.09.2020