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

Aalto Wellbeing Week SPORTS by Unisport
19 hours ago

Aalto Wellbeing week: Workshop for doctoral students on 7.10.2020
24.09.2020

Intossa käyttökatto keskiviikkona 7.10. | Serviceavbrott i Into onsdag 7.10 |
Maintenance break on Into Wednesday 7 October
24.09.2020
Otaniemen kampuksen käyttö: ohje opiskelijoille syksy 2020 | Vistelse på Otnäs campus: anvisningar för studerande hösten 2020 | Use of the Otaniemi campus by students in autumn 2020
24.09.2020

Haluatko edistää kestävää kehitystä Aalto-yliopistossa? | Vill du främja hållbar utveckling vid Aalto-universitetet? | Interested in contributing to sustainability at Aalto University?
23.09.2020

NAMNTÄVLING FÖR EN DYNAMISK KURSFEEBACK-APP LANSERAD!
23.09.2020

NAME COMPETITION FOR A DYNAMIC COURSE FEEDBACK APP LAUNCHED!
23.09.2020

Dynaamisen kurssin aikaisen palautejärjestelmän nimikilpailu | Namntävling för en dynamisk kursfeedback-app lanserad! | Name Competition for a Dynamic Course Feedback App Launched!
23.09.2020

Tulosteiden postituspalvelu opiskelijoille | Utskrifter per post för studerande | Printout mailing service for students
16.09.2020

Join the challenge to get outside and move Sun 20.9.!
16.09.2020