



Programme description: Doctoral Programme in Electrical Engineering

Programme name in English

Electrical Engineering

Indicate the third-cycle subjects included in the programme.

Electrical engineering

Programme organisation

Describe the programme council (indicate which functions are included, not persons), the programme director and indicate in particular how student representation is ensured.

The programme director is the head of the Electrical Engineering (E2DOC) programme, which belongs to the School of Electrical Engineering and Computer Science (EECS) at KTH. The programme has a programme council, consisting of the programme director, an administrator, one or two doctoral student representatives and teacher representatives from the six specialisations.

Specialisation representatives and the programme director must be KTH faculty members. The school's director of third-cycle education may also attend meetings of the programme council. E2DOC's programme director is, together with other doctoral programme directors, part of EECS' council for third-cycle education.

The programme council meets at least twice per semester during the academic year. The members of the programme council are appointed by the EECS director of third-cycle education. Doctoral student representatives are appointed by the Student Union at KTH.

Courses

Range of courses offered

Describe the range of courses in the programme in general and the subject areas to be covered. Current courses are listed [write where].

The programme provides general and specialised courses in the subject. The programme includes compulsory courses in fundamental general skills of relevance for all doctoral students in the programme. These courses cover higher education pedagogy, philosophy of science and research methodology, scientific writing, innovation processes, patent law, research applications, research ethics, sustainable development, and gender equality, diversity and equal opportunities.

The range of courses offered is ensured through the programme's active support and funding for course development and major course revision, as well as through collaboration with the school's faculty. General-skills courses are offered by other KTH schools, if necessary on direct commission from the EECS doctoral programme.

Current courses are listed in KTH's course and programme directory. Course requirements are described in the subject syllabus.

Quality enhancement and monitoring of programme courses

State how the programme's courses are monitored and how quality enhancement of the courses is carried out.

Specialisation representatives are responsible for the quality of the courses in each specialisation. The course coordinator must implement a course evaluation, requesting student views on the course, in connection with each course offering. The course evaluation must be discussed, and the course analysis must be compiled and published according to KTH's general guidelines. The EECS standard form for third-cycle course analysis is normally used. For courses with more than 10 participants, a minuted meeting attended by student representatives and teachers must be held after the end of the course. The result of this meeting must be summarised in the course analysis.

Other programme content and support for the programme's doctoral students

Organised activities other than courses, such as seminar series and workshops.

The programme organises a doctoral workshop every two years, with invited speakers. A seminar is organised at least once a year, to provide information on the programme and current issues. The programme provides financial support to the doctoral section, to organise additional events for the programme's doctoral students.

Description of the continuous, systematic quality-enhancement activities of the programme

Describe the regular monitoring, analysis, evaluation and development activities. This can be done, e.g., through course analyses, programme analyses or the means for ensuring a relevant range of courses offered.

The key quality-enhancement tool at individual level is the individual study plan, which is drawn up by the doctoral student and principal supervisor for each doctoral student. Each individual study plan is revised at least once per year, after which it is reviewed by a teacher representative on the programme council before being sent to the director of third-cycle studies for approval. In addition to study plans, complementary activities are carried out to monitor problems and offer support to doctoral students and supervisors.

The criteria for promotion to the different salary grades for doctoral student employment, corresponding to 30, 50 and 80 per cent of degree progress, must be documented in the ISP. In the absence of clear milestones in the ISP, promotion is based on the duration of the study programme. Promotion seminars must be planned and held at these stages to check up on degree progress (a licentiate seminar is the equivalent of the 50% seminar). These promotion seminars must be held regardless of the form of funding.

At programme level, the programme director and the programme council carry out structured quality-enhancement activities with periodic focus areas, such as doctoral recruitment, and follow up surveys concerning doctoral students' studies. Programme analysis is carried out according to KTH's general guidelines. Together with the director of third-cycle education, the programme council continuously works to adapt, simplify and streamline the administrative processes related to the programme.