



## **Agenda**

- Welcome
- Overview of the programme
- · Programme council
- Routines, regulations, practical issues
- Some statistics
- PhD student survey
- Group discussion 1
- Inspiration from other EECS programmes
- Group discussion 2
- Summary
- Lunch



#### **Doctoral Programme in Electrical Engineering, E2DOC**

- 200+ current students
- 68 Main supervisors
- 79 Co-supervisors
- 7 Research divisions
- Founded in 2010



## **Program Council**



Mats Bengtsson Martin Norgren



Mehrdad Ghandhari Alavijh







Henrik Sandberg Göran Stemme







Tomas Karlsson Mathias Ekstedt Saumey Jain



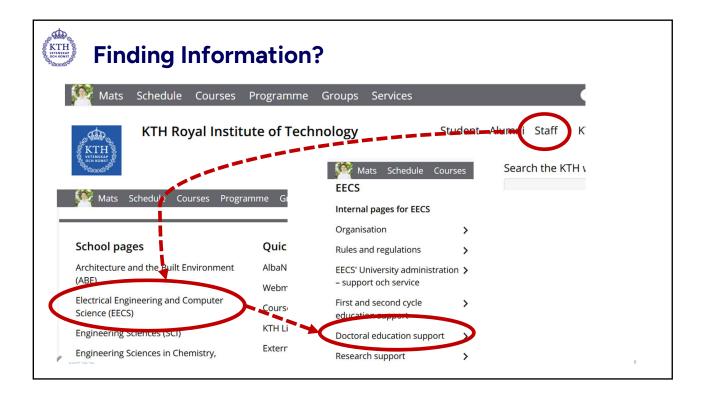
Anubhab Ghosh Emanuel Borg

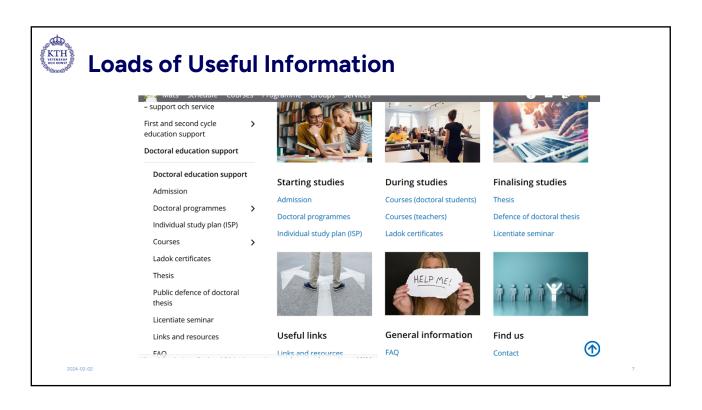


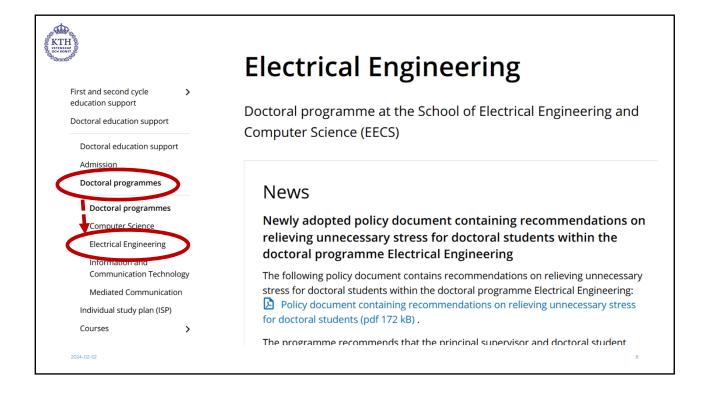


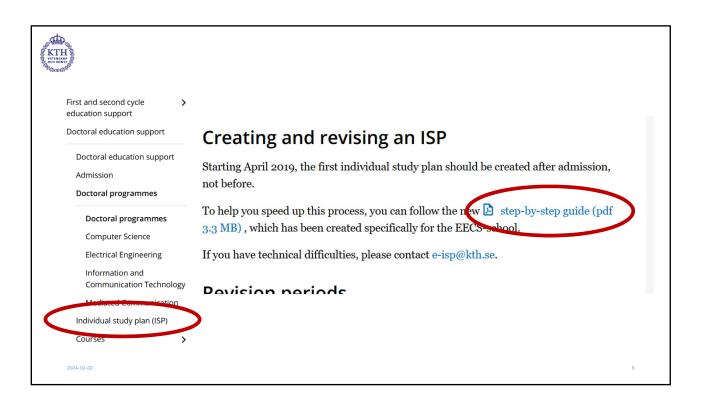
#### **Tracks, Representatives & Directors**

- Track representatives within E2DOC
  - Energy and Electromagnetics, Martin Norgren (EME) & Mehrdad Ghandhari Alavijh (EPE)
  - Information Science and Engineering, Mats Bengtsson (ISE)
  - Microsystems, Göran Stemme (MST)
  - Plasma Physics, Tomas Karlsson (SPP)
  - Decision and Control Systems, Henrik Sandberg (DCS)
- "PA" Programme Director for E2DOC: Mats Bengtsson
- "FA" Director of 3rd cycle education at EECS: György Dán
- · Deputy FAs: Lars Jonsson, Sarunas Girdzijauskas











#### **Individual Study Plans**

- Always direct your students to the step-by-step guide!
- · Ask the student **not** to push "Submit" until you both have finished editing!



- Don't forget to update "Work achieved"
- · Remove finished courses from the list of planned courses.
- Sect. 4.1: Please provide information on all your qualifications (docent, supervision training, ...)!
- Fill in "Forms of supervision". For example feedback on paper/presentation drafts, rehearsal of presentations, ...



#### "Recent" News

- All PhD and Licentiate defences must be digitally accessible for spectators.
- For licentiate degrees, the supervisor may not be the examiner!
- The count-down time table before PhD defences has recently been revised. Always check on-line!
- At the grading committee meeting, the opponent and supervisor(s) must leave the meeting before the board makes a decision!
- EECS organized summer schools for PhD students.
  - · Lunch-to-lunch.
  - First round 2022.
  - From 2024: Three summer schools, for 1st year, 2nd year and 3rd year students
- Bi-annual retreat for all E2DOC students, 2024, 2026, ...



# **E2DOC Policy document, on relieving unnecessary stress for doctoral students**

- · Appoint a local mentor for each new PhD student
- Discuss expectations early Use the Expectation form
- · Frequent discussions of the ISP
- Insight into departmental duties
  - What did you do last year that counts as departmental duties?
  - What is planned for next year?
  - Document in the ISP
- · Criteria for the salary ladder



## **Expectation form**

- Use early!
- · Supervisor and student fills in separately
- Meet, compare and discuss together
- Mostly no right or wrong
- The discussion often more important than the questions



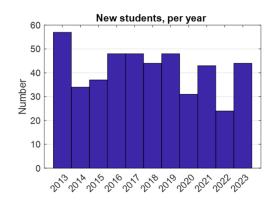
## **Salary Ladder**

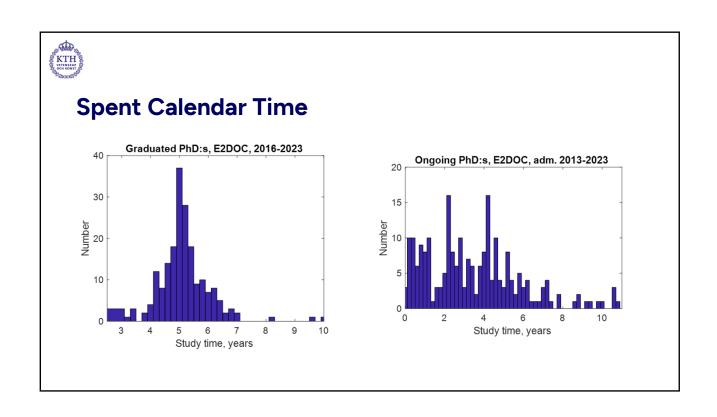
- · Salary levels
  - Initial salary: 30 800/month
  - "After 30%": 31 600/month
  - "After 50%": 33 800/month
  - "After 80%": 35 100/month
- Two main options
  - · Agree on criteria. Document these in the ISP
  - If no explicit and objective criteria in the ISP: Salary based purely on time!
- Recommendation to organize seminars at 30%, 50% (if no licentiate), 80%

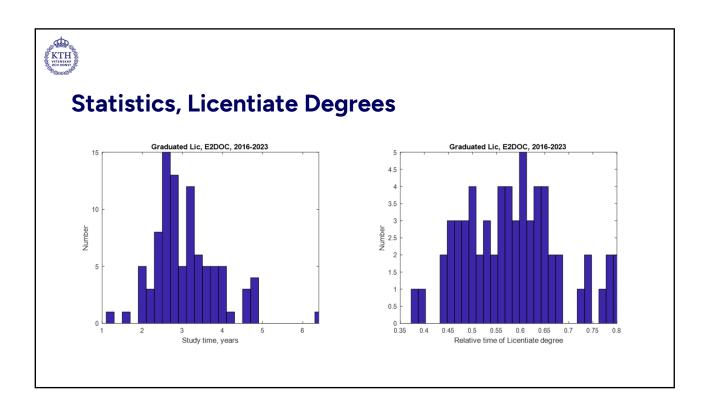


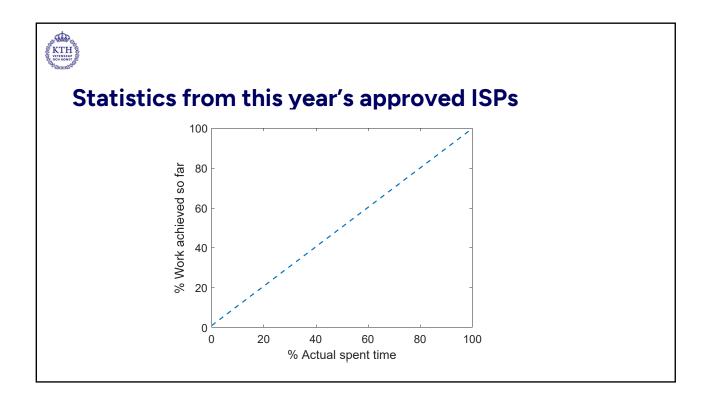
#### Some Statistics, Students Admitted 2013-2023

- 458 Admitted
- 197 Graduated with PhD, whereof 63 (32% with Licentiate)
- 97 Licentiate Degrees
- 35 Discontinued (whereof 8 after licentiate)
- ~40% monographs, 60% collection of papers, for PhD theses.
- ~65% monographs, 35% collection of papers, for licentiate theses.











# Results of the PhD Chapter's Survey (focus on EE)

December 1, 2023

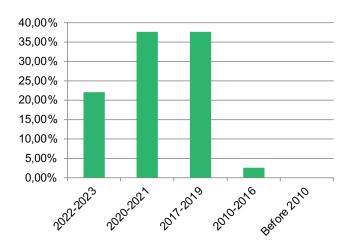
## Background and Basic Information

- Open from May 8, 2023
- Sent to <u>doctoral-students@eecs.kth.se</u>
- Questions: 106
- Responses: 211 (30 not employed by KTH) (≅ 44%)
- Responses in EE: 77

#### Access the whole survey.



#### Q: When did you start your doctoral studies?

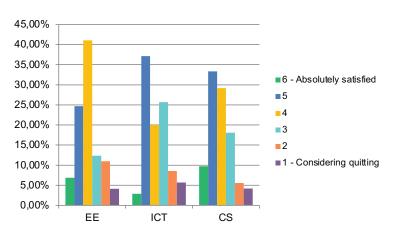


## Education

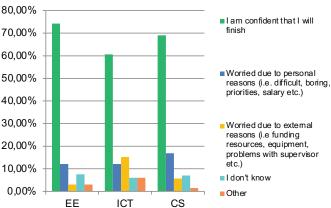
**Courses and Supervision** 

## Satisfaction

Q: How satisfied are you in general with your thirdcycle studies over the past year?



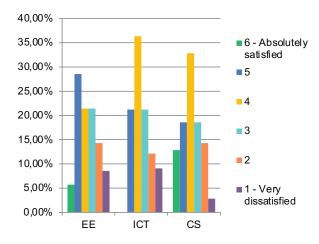
Q: How confident are you that you will continue your third-cycle studies until completion?



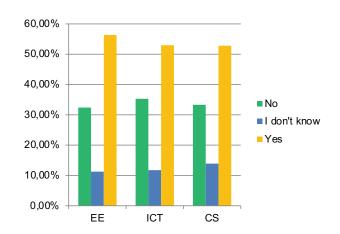
Dec 1, 2023 5

#### Courses

Q: How satisfied are you with the quality of the thirdcycle courses (provided by KTH) you have taken during the last year?



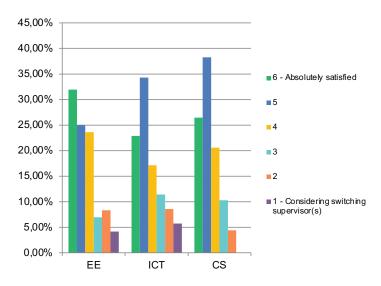
Q: Have you been able to find suitable third-cycle courses for your studies in a timely manner suitable to your study plan?



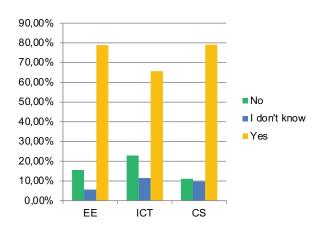
Dec 1, 2023

## Supervision

Q: How satisfied are you with your KTH-supervisor(s)?



Q: Do you feel that at least one of your supervisors is sufficiently engaged in your research and your topic to give you supervision at an adequate scientific level?

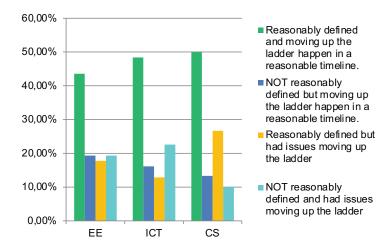


## Supervision

Many think that supervisors lack insights into:

- The guidelines on doctoral studies,
- the expectation form,
- the general syllabi of the doctoral programs, and,
- the collective agreements on doctoral candidate salaries.

Q: Has the progression in the salary steps (30%-50%-80%) been defined reasonably (what research output constitute each stage) in eISP and moving up the ladder took place in a reasonable time line (roughly one step every 12-15 months)?



Dec 1, 2023

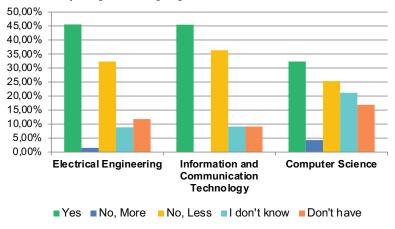
## Employment

Departmental Duties and Occupational Health

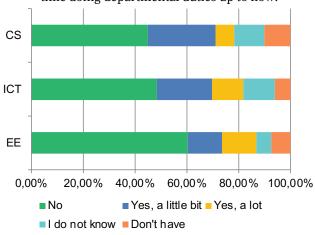
## Departmental Duties

As per the Higher Education Ordinance (Ch.5.) - Departmental duties is defined as: Work to a limited extent (<= 20 %) with education, research, artistic research and administration

Q: Does your eISP include the right percentage of time you spend doing departmental duties?



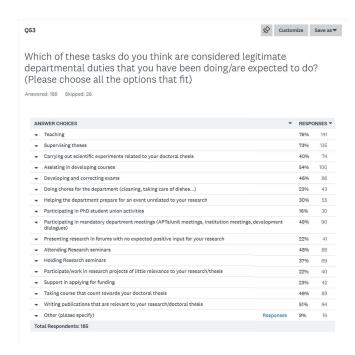
Q: On average, did you spend more than 20% of your time doing departmental duties up to now?



Dec 1, 2023

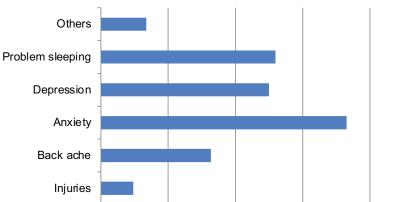
## Departmental Duties

- There seems to be confusion about what counts as departmental duty.
- As shown by the survey done in 2023, students aren't familiar with the terms and conditions of their employment.



## Occupational Health

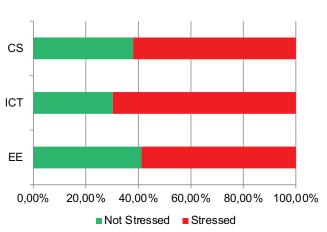
Q: Have you experienced any of these health issues listed below during the last year caused by your doctoral studies?



40,00%

20,00%

Q: Have you experienced unhealthy levels of occupational stress during the last year as a doctoral student?



12

Dec 1, 2023 ■ EE

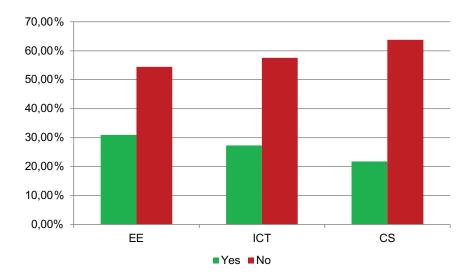
80,00%

60,00%

## Occupational Health

0,00%

Q: Have you sought professional help to deal with any of the above mentioned health issues during the last year (2023)?



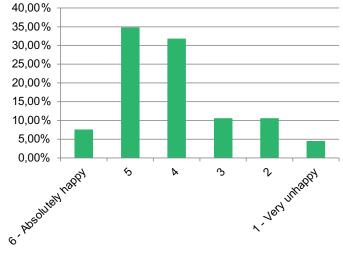
## Summary

- Majority of the students are satisfied with their doctoral education, but there is room for improvement
- 26% of students in EE feel that they will not be able to finish their degrees
- Courses: course offerings still remain an issue
  - o More high-quality courses at PhD level
  - o More structured course offerings so students can plan ahead big source of stress
- Need to ensure that the **students and supervisors** are aware of the current guidelines and regulations
- Mental Health: Most of respondents from the EE program indicated that they had unhealthy levels
  of stress
  - O Causes may include lack of structured course offerings, lack of awareness of expectations and regulations, lack of clear definition of responsibilities (e.g., departmental duties)

Dec 1, 2023

## To Conclude

Q: How would you rate your overall happiness with your position as a third-cycle student at KTH?





## **Group Work 1**

- How work with 30%, 50%, 80% salary levels
- How work with 30%, 50%, 80% seminars? Format? Organization?
- Have you used the expectation form? Experiences?
- Document and report back!



## **Activities of other doctoral programs at EECS**

- Advisory panels. Presentation by Dilian Gurov, PA for the Computer Science programme.
- Thesis proposal (both for licentiate and PhD)
- Summer retreat



# How Supervisory Group Meetings are Organized at TCS (brief summary of Dilian's oral presentation)

- Once a year, usually in connection with the ISP updates
- Every PhD student meets two faculty member different than their supervisor(s)
  - Not necessarily the same every year
  - The student can suggest names
  - Matching done by the PA
- Explicitly stated purpose: Not to put pressure on the student, but to help
- Basis for discussion: a "self declaration" with 12 questions
- The supervisory group informs the PA about the outcome of the meeting
  - · May take own actions
  - Typically "everything is fine"
- PA keeps track and tries to push meetings that didn't happen



#### **Group Work 2**

- · How work with advisory panels?
- Other ideas to improve for our students?
- Document and report back!



#### Planned Changes, New General Study Plan

- Introduce official specializations. Will be printed on the degree diploma.
  - Electromagnetics, 60cr courses
  - Electric Power , 60cr courses
  - Information and Signal Processing , 75cr courses
  - Micro Systems , 60cr courses
  - Plasma Physics , 60cr courses
  - Decision and Control Systems, 75cr courses
- Required #course credits reduced 75cr → 60cr for most of the specializations.
- Relaxed admission requirements 120cr → 60cr at master's level.
- Currently under revision after feedback from KTH Utbildningsnämnd.