EECS Staff meeting

12 October
Agenda

- Communication manager Sturle Hauge Simonsen hosts the meeting.
- Head of School Ann Lantz presents general news about the school’s activities.
- Director of First and Second Cycle Education Markus Hidell presents the admission statistics.
- Head of Administration Joakim Palestro shares news from the University administration.
- Rossen Apostolov from BioExcel presents the centre of excellence.
- David Olgart presents Cybercampus Sverige.
- Q & A.
New employees

- Administrative officers: 16
- Affiliated professor: 1
- Promotion to professor: 2
- Lecturer (Adjunkt): 1
- Docent: 1
- Summer workers: 33
- Postdoc: 20
- Research engineers/assistants: 38
- Researchers: 8
- Doctoral students: 26
- Undergraduate assistants (Amanuens): 81

Number of hired employees: 211
- Women: 47
- Men: 158
- Other/not specified: 6
New on the job

New Head of Department at the Department of Human Centred Technology

Jarmo Laasolahti

New Head of the Division of Media technology and interaction design

Cristian Bogdan
JML group at EECS

Seminar on Accessible Digital Systems.
Jan Gulliksen, KTH EECS.
Stefan Johansson, KTH EECS and Begripsam AB.
Course on digital accessibility – create and publish content.

Link to recorded seminar and presentation

Seminar on Reasonable accommodation for people with disabilities – what does the law say?

Sabina Hellborg. Senior lecturer at Stockholm University.

For all employees at EECS
27 November, 12:00 - 13:00 at Digital Futures Osquars backe 5, floor 2 and via Zoom.
KTH – University board agenda fall 2023, updates

• Economy in balance (ongoing).

• Model for resource allocation (ongoing).

• Collegial organisation (decision in November).

• Campus review (decision in November).

• Vision and goal (decision in November).
The President and Deputy President visited the EE department on 11 October
An update from 1st and 2nd Cycle Education

New registered students to EECS programmes 2023
Markus Hidell, Director of First and Second Cycle Education
EECS programmes, fall 2023

**Electrical Engineering**
- Electromagnetism, Fusion and Space Engineering
- Electric Power Engineering
- Nanotechnology
- Information and Network Engineering
- InnoEnergy (EIT)

**Computer Science**
- Embedded Systems
- Systems, Control, and Robotics
- ICT Innovation (EIT+local)
- Communication Systems
- Computer Science
- Software Engineering of Distributed Systems
- Interactive Media Technology
- Machine Learning
- Cybersecurity

**Institutes and Centres**
- CELTE
- TIELA
- TIEDB
- CINTE
- TCOMK
- TIDAB
- CDATE
- CMETE
## Registered students in EECS programmes 2023

<table>
<thead>
<tr>
<th>Programme</th>
<th>#Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc Eng Media technology</td>
<td>80</td>
</tr>
<tr>
<td>MSc Eng Computer science and engineering</td>
<td>223</td>
</tr>
<tr>
<td>MSc Eng Information and communication technology</td>
<td>67</td>
</tr>
<tr>
<td>MSc Eng Electrical engineering</td>
<td>104</td>
</tr>
<tr>
<td>BSc Eng Computer engineering</td>
<td>92</td>
</tr>
<tr>
<td>BSc Eng Electronics and computer engineering</td>
<td>43</td>
</tr>
<tr>
<td>BSc Eng Electrical engineering</td>
<td>60</td>
</tr>
<tr>
<td>BSc Information and communication technology</td>
<td>45</td>
</tr>
<tr>
<td>EECS Master’s programmes</td>
<td>557</td>
</tr>
<tr>
<td><strong>Total registered 2023</strong></td>
<td><strong>1271</strong></td>
</tr>
</tbody>
</table>
Increase in registered non-fee-paying students

President's decision “Economy in balance” as of 7 February 2023
• Investigate possibilities to increase admission numbers
• The numbers below are non-fee-paying registered students
  • Financed through governmental grants

<table>
<thead>
<tr>
<th>Programme categories</th>
<th>#Students (estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in EECS MSc programmes HT22→HT23</td>
<td>21 (30)</td>
</tr>
<tr>
<td>Increase in EECS MSc Eng programmes HT22→HT23</td>
<td>22 (10)</td>
</tr>
<tr>
<td>Increase in EECS BSc Eng and BSc programmes HT22→HT23</td>
<td>22 (10)</td>
</tr>
<tr>
<td>Total increase non-fee paying HT22→HT23</td>
<td>65 (50)</td>
</tr>
</tbody>
</table>

We have also increased the number of incoming exchange students with around 40
University Administration 2024

Joakim Palestro, Head of Administration
What’s going on

• Coordination of the faculty board meetings.
• Enhancement of the financial unit.
• Economic savings on University administration for 2024.
• Organise new service functions.
• University administration development plan for 2024.
BioExcel Centre of Excellence

Driving Computational Biomolecular Research in Europe

Rossen Apostolov
rossen@kth.se
Extreme-scale computing for Life Sciences

- Understanding proteins and drugs
- A 1 μs simulation: 10 exaflop
- Many structural transition: many simulations needed
- Study effect of several bound drugs
- Study effect of mutations
- All this multiplies to >> zettaflop
- Question: how far can we parallelize?

Large-scale free-energy-based drug screening (GROMACS & PMX)

- Transformational turnaround
  - 3 months ⇒ 3 days
  - Rapid computational exploration
  - Connection with experiment
- Accuracy ~ 1 kcal/mol - leading commercial software
- 500 ligand-receptor affinities in
- 3 state of the art force fields
- Routine multi-user production use ⇒ exascale
EuroHPC Joint Undertaking
19 European Centres of Excellence
BioExcel is funded by the European Union Horizon 2020 program under grant agreements 675728 and 823830 and Horizon Europe program under grant agreement 101093290
Application areas

- Drug discovery
- Lipids & Membranes
- Biomarkers
- Biomaterials
- Biophysics
- Biochemistry
- Genomics
- Neuroscience

BioExcel
Core Competence
Mission of the centre

- Provide Life Science researchers with high-quality, user-friendly software
- Increase their expertise and skills
- Strengthen the community
Why are CoEs important for EECS/KTH?

- Flagship European projects with long-term prospects
- Very high profile in the scientific HPC ecosystem
- As coordinators, we can ensure successful implementation of the program and build trust among partners and the community
- Raise the brand of KTH as a leading research and technology institution
- More collaboration opportunities, more funding (public and private), stronger research and technology developments
Cybercampus Sverige | Sweden

David OLGART  |  Director

olgart@kth.se
The Never-Ending Story ... Cyber Insecurity
Cybercampus Sverige | Sweden

The Initiative

Working Together

Support

The Planning Process
Mission Statement

- Carry out **agile** and **cutting-edge** cyber defence and security **research, education** and **innovation** vital for a resilient Sweden.
- Beyond what is possible for any one organization.
- Universities, institutes, authorities and industry, together.
Next meeting

11 December, Sal C, KTH Kista
Questions?