

COMPUTER SCIENCE DEPARTMENT STRATEGY

Version 2 of 2022-03-22, approved 2022-04-04

Values – who we are and want to remain

1. We offer challenging, rewarding and well-taught education programs.
2. We conduct internationally recognized research.
3. Our core competences are computer science, software engineering and data science.
4. We value collaboration with other branches of research.
5. We seek impact and interest beyond academia, including industry and government.
6. We have no internal barriers to collaboration.
7. We have an attractive and inclusive work environment.
8. We have efficient, rational, and transparent procedures.

ITU CS strategic focus areas 2022-2025

- A. Unite the department.
- B. Improve PhD scientific environment and recruiting.
- C. Acquire more research funding to have more PhD students and postdocs.
- D. Strengthen the relation to the rest of ITU, including executive management.
- E. Maintain our education programs' attractiveness to students and employers.

A. Unite the department

The coherence of the department is in general quite good, but in recent years it has suffered from (a) the recurring pandemic lockdowns, (b) the strong growth in both faculty, PhD students, postdocs, and other colleagues, and (c) the split into two buildings. Soon (a) should be history, and (b) should calm down somewhat, but the split of location continues to be a challenge for collaboration between groups and disciplines.

The CS department will strive to (1) improve knowledge sharing across all groups and centres, (2) thereby increase the likelihood of new synergies between groups and fields, and (3) improve co-location and collaboration opportunities for everybody.

B. Improve PhD scientific environment and recruiting

The CS department will prioritize creating rich computer science content for the courses of the PhD school. By the end of the strategy period, it should be possible for most CS PhD students to graduate earning 80% of course ECTS points at the IT University. We should attract PhD students from other Danish universities to most courses and to CS department researchers as external co-supervisors.

The CS department will contribute to streamlining ITU internal processes for competitiveness with other universities, both national and international.

This will require: (1) ensuring more representation of the department in the PhD Council; (2) promoting development of new PhD courses in CS; (3) continued attention to the search, hiring and onboarding processes for PhD students.

C. Acquire more research funding

The CS department works actively to strengthen its research activities and its reputation. The number of PhD students should be increased. The department strives to further support faculty members in attracting external funding, especially from research grants and collaboration with industry. Within the given government base funding, the CS department will contribute to maximising the university's main outputs – education and research – so base funding can be spent wisely to support a large amount of externally funded research.

D. Strengthen the relation to the rest of ITU

The CS department will assume more responsibility for the overall functioning and development of the IT University through contributions to the management structure, simplification of administrative procedures, general efficiency, and implementation of the overall university strategy.

This will likely require that faculty gets further involved in cross-cutting forums and processes, such as the PhD School, union work, IT infrastructure council, IT security group, and so on, and we should seize opportunities to improve things and help each other internally at the IT University.

E. Maintain our education programs' attractiveness to students and employers

We aim to maintain and improve the high quality and attractiveness of our education programs by (1) working with management to advance our common goal of offering ambitious STEM educations; (2) continued student recruiting efforts focusing on competent, ambitious, and motivated people selected from a large pool of applicants; (3) continued attention to diversity and inclusion; (4) continued focus on retention and on avoiding discrepancies between recruiting materials and the form and contents of education programs; and (5) continued updates of the content and structure of education programs based on scientific depth and industrial relevance.

Relation to ITU's overall strategy for 2022-2025

ITU strategy goal 1 (educate more IT professionals and IT researchers) is supported by CS goals B, C and E, and CS values 1, 2, 3, 4, 5 and 7; ITU strategy goal 2 (engage in research and educational activities that help share a sustainable digital future) is supported by CS goals C and E, and CS values 1, 2, 3, 4 and 5; and ITU strategy goal 3 (enable all students and staff to thrive and excel together) is supported by CS goals A, B, C, D and E and CS values 1, 6, 7 and 8.

Sources for this department strategy

- ITU workplace assessment December 2020, documented in Rambøll reports.
- Early CS department draft strategy (in department wiki), discussed in ad hoc department board 18 Jan 2021; in faculty meetings 19 Jan and 26 Jan 2021; and in an anonymous survey conducted Jan-Feb 2021.
- CS department retreat September 2021, documented in Teams channels *Retreat follow-up 1-5, n*.
- Ad hoc department board meetings 29 Oct, 29 Nov, 17 Dec 2021, 25 Jan 2022; faculty meetings 23 Nov, 7 Dec, 21 Dec 2021; workshops 9 Dec 2021; drafts and discussions in Teams channel *CS department strategy* Dec 2021 - Jan 2022.