Minutes Meeting in Employers´ Panel for Computer Science

(BSc in Data Science, BSc in Software Development, MSc in Computer Science, MSc in Software Design, MSc in Data Science).

When: Wednesday September 24, 2025, at 17.00 – 20.30, room 3A20 IT University of Copenhagen, Rued Langgaards Vej 7, 2300 København S.

Comments to those minutes may be given within twenty working days after receiving the minutes. If no comments are given, minutes will be considered approved without further notice.
No comments received, Minutes approved.

Participants:
Members of the panel: Anne Hauberg Aakjer (chair), Maiken Lykke, Daniel Schiermer, Torben Wind Meyhoff, Ender Yüksel, Sebastian Winslow, Lasse Lund Sten Jensen, Pernille Hertel.

From ITU: Per Bruun Brockhoff, Luís Cruz-Filipe, Dan Witzner Hansen, Louise Meier Carlsen, Therese Graversen, Marco Carbone, Martin Aumüller, Michele Coscia, Camilla Rosengaard, Mahsa Varshosaz, Paolo Tell, Mette Holm Smith, Marc Kellaway, Allette Bjørn Bundgaard.

Agenda:

1. **Short presentation round**:

2. **Follow up on previous recommendations:**
   Nothing pending.

3. **Status on the Industrial MSc in Advanced Software Engineering (EKASE):** / Mahsa and Paolo
   The content of the program remains, but its structure has changed due to shifts in the political framework.
   The curriculum consists of 120 ECTS credits over three years: Year 1 is full-time study; Years 2 and 3 combine 50% employment and 50% study.
   The curriculum includes six mandatory courses (7.5 ECTS each), six elective courses (7.5 ECTS each), and a 30 ECTS thesis.
   In the first year, students will take two electives, with at least one being a project course involving a company and an ITU supervisor.
   In the second year, students can choose from a broad range of electives. Students write the thesis in close collaboration with the employer.
   There is no formal specialization; students shape their academic profile through elective choices.
   The proposed design reuses existing courses for the 2027 curriculum.
   New courses will be developed as required.

A fallback option is available: a standard 2-year MSc program covering the same 120 ECTS.

The program targets applicants with a BSc in Software Engineering, Computer Science, Informatics, or related fields.
The reform requires a reduction in intake on the existing MSc-programs. Thus, a shift in number of applications towards the EKA programs is expected.

For a beginning, ITU plans to cooperate with larger companies that can offer multiple student placements, later followed by cooperation with smaller companies.
ITU manages admission and student status, while companies select candidates from the group of admitted students.
Companies can offer study jobs to the students during the first year of study.
Financial model: Students receive SU in year 1 and are employed for 25 hours/week in years 2 and 3 without SU.

The proposal has been approved by the ITU Board of Directors.
A fast-track prequalification submission to the ministry is planned for October 2025.
The first intake will include eighteen students.
By 2029, the program aims to enroll approximately fifty students.

Comments from panel:
- The fallback solution and company collaboration are strong features.
- Will electives allow for in-depth study?
ITU: yes, just like in the other ITU-programs.
- The new 3-year model seems more attractive than the previous one, especially in allowing students to collaborate with their employer during the last two years.

4. **Status on study programs (applications, admissions, employment, etc.).**
BDS (Therese):
- The international cohort is large compared to Danish students, especially among women. International students mainly come from Romania, Bulgaria, and Poland.
- The mathematical content in BDS aligns with other Data Science programs.

Comments from Panel:
- Topics like agents and prompt development are needed in the labor market and could be integrated as electives.

KSD (Martin):
- Applications have increased, and the women ratio is now 54%.
- International student numbers have risen, especially applicants from Italy and Romania.
- Dropout rates have significantly decreased. Probably, due to improved study counselling.
- A new specialization structure has been introduced: students choose three courses from a catalog, and they are advised to also take the courses Distributes Systems, Framework and Architectures for the web, and Operating Systems and C.

KCS (Marco):
- Applicant numbers have grown steadily, most students come from BSWU, which has a low women ratio resulting in the same on KCS.
- Many international applicants are offered places, but few accept.

KDS (Luca):
- The program receives many applications, and most admitted students list KDS as their first priority. The program is attractive to international students, many coming from BDS.
- The first graduating cohort all found jobs within 1.5 years.

SWU (Dan and Louise):
- Many applicants fail to meet the Math GPA requirement of 6.0.
- No major curriculum changes have been made.
- The Heads of Programs focus on aligning core courses, reducing delays and dropouts, and improving meta-communication to students.
- GenAI is being discussed as a balanced part of the curriculum.
- The Danish Evaluation Institute (EVA). conducts a case survey on SWU as part of a large national project on teaching quality and student wellbeing.

5. Drop in applications to BSWU /Dan

There has been a dramatic drop in applications to BSWU this year, more than in comparable programs. However, other software engineering programs have also seen a decrease. Additionally, the applicants´ grade levels from high school are slightly lower than previous.
The gender distribution is around 20% women, which is lower than desired.

Causes for the drop may include:
- Possible fear among potential applicants – and their parents - that GenAI will replace IT jobs leaving no future in taking an IT-education.
- Communication to potential applicants may not be targeted enough.
- Some ITU-students express that the (lack in) use of GenAI makes SWU old-fashioned.
- Over the years, other universities developed study programs with similarities from SWU. Thus, SWU no longer have the advantage of being unique.

Target points to raise the number of applicants:
- Communication should be updated.
- Revising the program-specific criteria to SWU. The Math GPA 6.0 requirement is historically based and reduces SWU´s competitive position. Equivalent programs place the GPA requirement on the high school exam in total and not on math.
- Adjusting the quota 1/2 distribution.
- Improve content and retention without compromising quality.

Comments from panel:

- Changing the program from Danish to English, creates a risk of losing Danish applicants as a part of them prefer Danish-language programs.

6. **Certification in Security / Marco**

   At the last meeting, some panel members suggested integrating a security-certification into KCS. Instead of an external certification, ITU may acknowledge graduates in security. The question is if this will provide companies with sufficient proof of graduates´ skills in security.

   Comments from panel:

   - ITU's acknowledgment could probably serve as a useful mapping tool for companies.
   - Companies would still need an external certification; however, an ITU acknowledgement may reduce the need for post-hire training for both company and employee.
   - Why is certification in security prioritized over other CS topics?

7. **AI as competence: / Luís and Anne**

   Luís presented status of GenAI at ITU:

   - There is a gap between how AI is taught at universities and how AI competences are articulated in companies.
   - Learning the traditional way is still necessary and should be taught in some courses. Teaching and applying GenAI are relevant in other courses.
   - It is important to be clear and precise about this split in the narrative we present to students: *"You will learn the traditional skills by hand first and then you will learn about and apply GenAI later on."*
   - It is also important to communicate widely that GenAI is highly relevant and will not eliminate jobs.
     GenAI is already used in courses; the question is which aspects to teach.

   Comments from panel:

   - ITU must embrace GenAI and teach students how to use it responsibly.
   - Courses should cover GenAI fundamentals and limitations.
   - Companies employ IT-engineers, not end-users, thus, what ITU teach should target IT-engineers.
   - Students already use GenAI, and it is not realistic to ban the use of it in early courses.

8. **Any other business:**

   It would be nice if January meetings are hosted by a panel member.
   Anyone interested in hosting the next meeting please let us know.