

IDUN Project: From PhD to Profess or (and Beyond!)

Applicant Information

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Individual or Group Submission

This submission is on behalf of a group.

Public Abstract

When female professors in Informatics attain leadership positions, they may realize that they are one of few females in their departments as well as in STEM leadership. The IDUN Project, at the Department of Computer Science (IDI) at Norwegian University of Science and Technology (NTNU), aimed to improve the rates of gender balance in informatics through mentorship and networking. This project connected 9 female adjunct professors from 9 different countries and 35 mentees at the early career stage. The project ended in 2022 and produced best practices for developing mentoring programs, and recruiting, hiring, promoting, and retaining women in academia.

Can submission be considered as a Runner Up?

Yes

Can this project be considered as an exemplar of Best Practice in future IE publications?

Yes

Description of the Initiative

IDUN was named after Idun Reiten, the first female professor in the IE faculty at NTNU. The IDUN project started on 1st August 2019, and only 13.8 % of professors at the faculty level were women. The main reasons include too few women enrolled in STEM studies at the Master level, and the dropout of women increases the further up the career ladder they climb. IDUN worked to improve three different issues relating to gender balance: recruiting more women to all levels from Ph.D. to professor, helping to limit dropout of women, and increasing the number of female scientists involved in international research projects. At the completion of the project, the number of women in faculty positions at NTNU rose to over 16%.

The central measure in the project was to employ nine female adjunct professors, at least one at each of the research units that comprise IDI. These units are located at two campuses in Trondheim and in Gjøvik Norway. In the first reporting period, the focus was on the recruitment of candidates for these positions. In close collaboration with the department heads and the faculty's senior HR advisers, the project recruited 9 excellent female mentors. IDUN provided training for these professors to become role models and mentors. Each mentor was assigned 3-5 students. The research units and corresponding working groups were:

- [**Group 1: Smart Cities - interdisciplinary project combining mathematics, physics, and computer science**](#)
Department of ICT and Natural Sciences
Department of Computer Science
- [**Group 2: Representation theory of algebras**](#)
Department of Mathematical Sciences
- [**Group 3: Digital Innovation and Software Engineering Practices Fostering Social Innovation for Social Good**](#)
Department of Computer Science
- [**Group 4: Computer Science for Social Good**](#)
Department of Computer Science
- [**Group 5: Considering AI in IoT and smart cities by focusing on safety and security challenges**](#)
Department of Computer Science
- [**Group 6: Robotic control, AI and safety / explainability**](#)
Department of Engineering Cybernetics
- [**Group 7: Programmable and Human-centric Mobile Networking for Beyond 5G**](#)
Department of Information Security and Communication Technology
- [**Group 8: Future power systems: digital small grids to solve the coming challenges regarding a de-centralized grid**](#)
Department of Electric Power Engineering
- [**Group 9: Novel photonic sensors, and optical characterization techniques for biomedical and information technology applications**](#)
Department of Electronic Systems

These groups were designed based on the research initiatives of the university as well as the expertise of the recruited mentors. In addition, there was a demand for experience in these areas in industry and by students.

Building on gender equality projects

The IDUN project is built on knowledge and experience from three ongoing gender equality projects at NTNU: WeLead, The Girl Project Ada, and «Equality from below: Towards gender equality at NTNU in 2025». Based on the experiences of these three, IDUN developed as a Strategy process, a Collaborative project, and an International network.

Strategy process project

IDUN created an integrated and binding collaboration between the management and the employees at the faculty, with a focus on gender equality. An important measure against dropout is to create a mentor scheme for women at the master level to associate professor level. IDUN met this measure by designing a mentor system that consisted of regularly scheduled group meetings, IDUN project meetings, and meetings for mentors to discuss arising challenges from the process. This allowed to educate and learn from successes and failures as well as to share and develop best practices for mentoring small groups.

A collaborative project

IDUN builds on the methods used in the NTNU projects The Girl Project Ada and WeLead. The collaborative nature of the project afforded structure of mentoring and large group meetings but allowed flexibility in the design of the working group meetings. IDUN's team worked with all research unit chairs, department heads in IDI and HR. The team also provided support for the researchers, mentors, program participants, and top management.

An international network project

IDUN worked with The Girl Project Ada to strengthen the focus on gender equality among our international partners, especially in relation to Nordic5Tech - an established collaboration between the five leading technology universities in the Nordic countries. By formalizing and developing existing networks, IDUN contributed to international mentoring schemes between women in scientific positions at different levels. In addition, IDUN strengthened the faculty's gender equality in externally funded projects, such as Horizon2020, where all funded projects must have a strategy for recruiting women.

And Beyond!

In order to further the mission of IDUN, ACM Women Trondheim was founded in 2020 with the vision of fostering gender mainstreaming, as well as enhancing and advocating gender balance in computer-related scientific fields and professional sectors. This chapter was founded with the intention of becoming an umbrella for specialization clusters that gives us the opportunity to network beyond clusters, to meet people, to work across groups, and to enrich our research. In addition, ACM Women Trondheim will increase the visibility of IDI activities to the NTNU community and beyond, to provide support for female students in CS and CS-adjacent fields in all degree levels on their journey to graduation, and to provide a network for our alumni across different industrial sectors.

Evidence of Impact

The success of the IDUN Project can be seen in the changes in faculty representation and demographic composition of the participants and NTNU STEM faculty overall. First, there was an increase in female professors at the faculty level at NTNU's Computer Science department from 13.8% to over 16% in 2021.

Next, there is the change in the status of the IDUN participants. had nine mentors and 35 mentees. In the years of the program and shortly after, the number of mentees who got full time jobs are xx, the number of students who completed their masters degrees are 3. Of those, 3 began their PhDs. The mentees who completed their PhDs are 4, and the number of postdocs who are in research positions are 2. The number of participants who are now tenured are 11, and the number of program participants who are still progressing in the same position as they began IDUN 13. Those who left academia are 0. A chart with the results can be seen below.

Group Number	in Group	PhD Candidate	Assistant Prof	Assoc Prof	Postdoc	Researcher
1	3	0	0	3	0	0
2	2	1	0	0	1	0
3	2	1	0	1	0	0
4	5	1	0	4	0	0
5	4	3	0	0	0	1
6	5	4	0	0	1	0
7	6	3	0	3	0	0
8	6	6	0	0	0	0
9	2	1	0	0	1	0
total	35	20	0	11	3	1

In order to not stifle the momentum IDUN developed. ACM Women Trondheim was started as a network for IDUN and NTNU graduates. There are x IDUN members in ACM Women Trondheim, and we plan to support these people by creating opportunities for networking, hosting panels for their expertise, creating scholarships for them to share their work in Norway and abroad.

Reference list

[Best Practices: from PhD to Professor Booklet 2023](#)

[IDUN Overview](#)

[IDUN Research Groups](#)

[IDUN Mentors](#)

[IDUN Interview Booklet with the Mentors](#)