

## A new start – post-Covid-19

Hopefully the Covid-19 pandemic is behind us. This means that the Hub is coming back to normal operation, i.e., offering physical lectures and encouraging the students to travel and visit their fellow students (inside the Hub with financial support)

Anyway, we will probably see a new normal, where many events are offered in a hybrid way. The hybrid

option will allow you to select specifically those conference presentations that are the most interesting for your thesis work.

However, don't forget that conferences and meetings also bring possibilities to mingle with your global fellow colleagues. Your international network is essential for your carrier options!

## Hub events during 2021

The Hub students prefer "physical events"

Hopefully 2021 will be the last year strongly impacted by the Covid-19 restrictions. In the shadow of the pandemic the Hub organized seven events, that was mainly offered on-line:

- Hub student seminar – 1 June 2021 (on-line)
- Hub student Hackathon: 17-18 Jun 2021 (on-line)
- Aalto: CS Research Day 2021, 7 Oct 2021 (on-line)
- Nordic IoT Hub annual meeting, 2-3 Nov 2021, Copenhagen
- Fog Computing for Industrial IoT, 8 October 2021 (on-line)

- SEC 2021 – Trustworthy Edge Computing Workshop, 17 December 2021 (on-line)
- LinkedIn training for PhD students, 5 Oct 2021, Copenhagen (Hybrid)

The feed-back received from the students is that they strongly prefer physical events (see also the below survey carried out by Aalto).

## Student visiting Aalto

Henrik Midtun from NTNU enjoyed a semester at Aalto writing his thesis

Our NTNU student, Henrik Sang Midtun, went to Aalto for one semester to write his thesis. The exchange was organised through the Nordic IoT Hub and during his work he had a main supervisor from NTNU and a co-supervisor from Aalto.

Henrik says: "I highly appreciated my stay in Finland and would recommend any person from the Hub to visit Aalto University". I mostly worked from home due to the pandemic, however I still felt included by and as part of the university staff and students.

The HI2OT group at Aalto was very supportive and I was invited to some of their regular online social events. It was a lot of fun to meet them because they are both humorous and light-hearted.

Especially I appreciated the inspiring student culture at Aalto University. Each degree at Aalto has their own guild that is responsible for social events. The guilds have been very active in their work despite the pandemic, and they made it possible to quickly gain a social circle at a foreign university. To the students that consider going to Aalto, I can assure you that you will be in good hands.

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## Student statistics

The Hub started in January 2018 with 28 PhD students. Regular enrolments increased the affiliated number of students to today's 54.

The students are grouped in four thematic areas:

- Networking
- Fog/Edge computing
- Cloud computing
- Data analytics & machine learning

Currently 17 Hub students have finished their dissertation.

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## Survey on education provision

In March 2020 when the pandemic started none or only few teachers had experience in providing on-line teaching. Firstly, they had to change their training material to on-line methodologies and secondly, they needed to acquire experience with the on-line provision.

By the end of 2020, Aalto therefore made a survey among the Hub teachers to identify problems and experiences arising from the on-line lectures.

At that time, 82% of the teachers reported that they were using on-line course provisions (solely or partly).



The most frequently used provision form was by means of “live remote lectures” (89%) and “recorded lectures” (78%) One third of the teachers reported that the tools used were “limiting their teaching abilities”. And 55% found that the tools require a lot of extra work to use.

Finally, the teacher’s complaint that they were offered little or no education to better exploit and use the tools (82%).

In the Hub we assume that the situation has somehow improved during 2021.

Anyhow, the general feedback received from the students is that they strongly prefer physical education!

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## New EU proposal

The Nordic Industrial IoT (IIoT) Roadmap that was developed by the Hub in 2020-21 demonstrates the Nordic countries’ strong position with respect to sustainability and digitalization. The Hub partners believe that there is a unique opportunity to leverage these competences (trustworthiness, digitalization-AI, 5G, cloud and edge computing, and the IoT – and CPS) to enable and promote sustainability and a circular economy.

The Nordic IIoT Roadmap outlines several research areas where progress is needed to enable these directions. Examples include: Automated driving for sustainable mobility & transport, Self-powering systems for IoT & energy-efficient sensor networks, Safety, security, and privacy by design, Reduction of the energy consumption of HPC and datacenters and wearables for healthcare and wellbeing.

To maintain and strengthen the Nordic leading position, the Hub is currently drafting a proposal targeting the Marie Skłodowska-Curie Action

[The Nordic IIoT Roadmap forms the basis for an innovative EU Training Network proposal](#)

