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Nordic Semiconductor

Nordic Semiconductor is a fabless semiconductor company headquartered in Trondheim, focusing on low-power wireless communications devices. Starting with ASIC design, the company was formed in 1983 by four post-graduates from NTH (now NTNU). In 1996, the firm went public on the Norwegian stock exchange.

Today, Nordic Semiconductor plays a key role in the realization of the wireless future with their ultra-low power wireless technology. The number of employees has exceeded 1.300.

During the Hub's Yearly meeting Nordic's Product Director for Cellular IoT, Kristian Sæther presented the company's state-of-the-art product portfolio.

2022 Yearly meeting in Trondheim

The Hub's fifth Yearly meeting took place on 28-29 November in Trondheim.

Apart from the progress report from the Hub management the focus was on student related topics. In parallel sessions the students could learn how-to do-good elevator pitches of their research and got training for their post-PhD career, e.g. improving their CV or LinkedIn appearances.

Being organized in Trondheim the agenda also included a presentation of NTNU's lab facilities, e.g., the 5g lab and the Industrial robotic lab. By the end of the first day all the students were offered a guided tour at the labs.

NTNU's EU Adviser, Filip Jessen, presented the latest news from EU's IoT related research programmes.

A total new focus is the European chips Act. It is an EU initiative intended to secure European production of, and access to semiconductors. The budget of around EUR 40 billion includes support for research and testing centres, for the production of advanced technology, grants to small and medium-sized enterprises and the implementtation of security systems.

In general EU,s policy on IoT is targeting:

- The next generation Internet of Things
- Traffic moving from cloud to edge, avoiding unnecessary communication and storage
- Overcome challenge of diverse and large volumes of devices
- Need for trusted IoT and edge computing platforms

26 participants were registerred for the Yearly meeting.

Aalto University, FI
Lund University, SE
Norwegian University of Science and Technology, NO
Royal Institute of Technology, SE
Technical University of Denmark, DK

NordForsk

Joint project LTH – DTU

With the project ”5G emergency-medical IT health bridge” DTU-NET is collaborating with Zealand University Hospital and LTH-EIT to investigate, whether it is possible to jointly develop a project to upgrade the teledata communication, making it possible to send large amounts of data, e.g., scan images, from the ambulance to the hospital. This would allow the commencement of a complex treatment already in the ambulance, thus saving valuable time for the patient.

1st of June was the first day that ambulance #3881 from Falck in Næstved drove around with a network scanner from the project.

This was the initial exercise towards mapping the strength of the network in the region.

Upgrading to 5G teledata communication is specifically about developing a secure, reliable and stable data connection that supports large amounts of data in the form of telemedicine with video and sound over distances.

The upgrade will allow transfer of patient data, including data from data-heavy scans from ambulances to the region's servers, simultaneously allowing dialogue between specialists, practitioners and possibly patients, and complex treatment can begin already in the ambulance.

2023 planning

At the end of the Yearly meeting a brainstorming among the students led to the following list of desired focus during the last year of the Hub:

- A joint focus period (as inspired by the Swedish ELLIIT project)
- Common study tour to advanced research infrastructures
- More focus on writing joint papers
- Student driven activities