

What if AI can help save the climate?

ELLIIT Focus Period Fall 2024: Machine Learning for Climate Science

From mid-September to mid-October 2024, Linköping University hosted the autumn five-week-long focus period. The ambitious guest researcher program aimed for high inter-disciplinarity on the theme of machine learning for climate science. The symposium of the period was organized 8-10th of October 2024.



> **Read more about the focus period**

> **See program and download slides from the symposium**

> **Download slides from visiting scholar seminar series**

Linköping University news **reported** about the focus period, talking to Michael Felsberg, Fredrik Lindsten and Tove Kvarnström from the planning committee.

Read an article featuring visiting focus period scholars **here** on the ELLIIT homepage.

Video on the Linköping fall 2024 Focus Period topic (in Swedish) >>



Peeking in to the black box

ELLIIT Focus Period Spring 2025: Visualization-Empowered Human-in-the-Loop Artificial Intelligence

The spring 2025 focus period took place April 28th to May 30th at Linköping University, Norrköping Campus.

Once again bringing leading researchers in the field together, the focus period enabled in depth work on the theme, addressing questions on what the implications in terms of trust into the analytical results are, and potential biases that may occur. How should visualization research react and adapt to increase trust and call our attention to critical biases to avoid them? The focus period symposium was organized 13-15th of May.

> **Read more about the focus period**

> **See program and download slides from the symposium**

> **Download slides from visiting scholar seminar series**

> **Thoughts on the focus period from a visiting scholar**

Focus Period Lund Fall 2025: Robot Learning

In fall 2025, the focus period in Lund will center around **robot learning**. Main organizer is **Yiannis Karayiannidis**.

The focus period takes place November 3rd to December 5th, 2025. The Focus period symposium will be 18-20th of November.

News

Open ELLIIT Call: Call G

ELLIIT call G for Ph.D. student projects to run 2026-2030 is now open to anyone at LiU, LU, BTH, and HH, irrespective of department affiliation or current/previous associations with ELLIIT. Pre-proposal of two pages and CV's are to be submitted September 1st the latest.

More information on the ELLIIT homepage.

From simulation to reality with autonomous cars

Read more about a **novel platform** for smoother transition from simulation to reality for autonomous vehicles. The platform is available at Visionen, a research arena for experimental research and teaching at Linköping university, funded by ELLIIT.



“Much of our research is currently being developed and evaluated in virtual environments, but simulations can’t fully capture the real-time demands and limitations that arise in physical interaction with the outside world,” says Theodor Westny.

Industrial Advisory Board Day 2025: Focus on Collaboration and Future Talent Supply



The industrial advisory board of ELLIIT gathered in Linköping on May 19th for an exchange between the ELLIIT and its industrial partners.

Taking place for the second time, the advisory board got an overview and insight in the advancements of ELLIIT since 2022, and looked into future impacts beyond academia.

Magnus Frodigh, VP and Head of Ericsson Research, advisory board member.

Funding decision: Gender & Diversity Project Grants 2025

The Gender & Diversity Group of ELLIIT has decided on funding for the following projects:

- AI Code Quest 4 Girls [BTH].
- Seminar series on gender equality issues in game development [BTH].
- PhD student and advisor seminars and workshops on gender/diversity biases [HH].
- Conference workshop on “Exploring the human norm in design” [HH].
- Attracting Underrepresented Groups to Electronics and Integrated Circuits design; continuation [LiU].
- Matematiksamarbete med skola i glesbygd; continuation [LU].
- Seminar series on underrepresented gender and science theory and methods [LU].

Events

WiOpt 2025



Nikolaos Pappas, LiU.

The 23rd International Symposium on Modeling and Optimization in Mobile, Ad hoc, and Wireless Networks, **WiOpt 2025**, took place in Linköping in May. General chair was **Nikolaos Pappas**.

The focus of the conference includes but is not limited to mobile networks, edge computing, intelligent networks, content-driven networks, cognitive networks, vehicular networks, robotic systems, and Internet. The event was sponsored by ELLIIT and technically co-sponsored by International Federation for Information Processing (IFIP), IEEE Control System Society, and IEEE Information Theory Society.

ELLIIT Distinguished Lecture

Technical University Lund 2025 Honorary Doctor Margaret-Anne Storey gave an ELLIIT Distinguished Lecture on May 21st in Lund.

Title of the talk was: “Measuring the Un-measurable, a design Science Approach to Understanding and Improving Developer Productivity.”

See a recording of the talk on the ELLIIT outreach page, under videos.

ELLIIT Workshop registration open

The annual ELLIIT Workshop 2025 will take place in Norrköping, October 21-22nd.

The program is available **here**.

Registration **is open here**. Deadline for registration is 1st of October.

Program chair is **Ingrid Hotz**, together with co-chairs Jonas Unger and Ehsan Miandji.

Publications

A short selection of recent ELLIIT environment publications and doctoral dissertations in 2025:

In what ways could cellular massive MIMO be improved? [Read an article](#) on Technical Faculty of Lund University homepage about an ELLIIT publication.

Doctoral dissertations

Narges Mohammadi Sarband:

> [Energy-Efficient Implementation of Communication Algorithms through Complexity Reduction.](#)

Cheolyong Bae:

> [Implementation and Design of High-Speed FIR Filters for Chromatic Dispersion Compensation](#)

Vu Nguyen:

> [Code-based Cryptography: Attacking and Constructing Cryptographic Systems](#)

Michiel Sandra:

> [Exploiting multiple antennas in maritime radio channels](#)

Meet the Recruited Faculty



Onur Günlü

To tackle the grand challenge of post-quantum cryptography (PQC) transition, Onur Günlü was granted the SSF 2024 Industrial Ph.D. grant.

We spoke with him about randomized algorithms, diversity and inclusion projects, and his ambition to establish a highly innovative research group in information and computation theory.

[Meet Onur Günlü >>](#)

Did you know...

...that most ELLIIT Alumni stay in Sweden?

