

Greetings from the Directors

ELLIIT 15 years: 2010-2025! It's now 11 years since the last external evaluation, where we came out very well. It has been impressive to see how the environment has succeeded, evolved, and grown since then. The next evaluation is expected either later this fall, or early in 2026, and we are all starting to prepare for it. We now celebrate 15 years with a temporary logo, that you can see in the newsletter and on the homepage!

Erik G. Larsson, director
Fredrik Tufvesson, co-director

ELLIIT Focus Period Fall 2025: Robot learning

Robot learning focuses on developing algorithms and methods that enable robots to learn from interactions with their environment, simulated experiences, as well as humans. This year's ELLIIT fall focus period seeks to review state-of-the-art techniques, address current and future challenges, and forecast the societal and industrial impacts of robot learning.

The focus period takes place in Lund from November 3rd to December 5th. The focus period symposium is November 18th to 20th.

> **Read more about the upcoming focus period**

> **See the invited speaker, so far**

> **Meet the visiting scholars, so far**

The robotics lab at Lund University is an ELLIIT infrastructure, open to ELLIIT researchers >>

News

Open ELLIIT Call: Call G

ELLIIT call G for Ph.D. student projects to run 2026-2030 is open a few more days, deadline to submit is September 1st.

[Read more on the ELLIIT homepage.](#)

Open Call: Hosting focus period spring or fall 2027

ELLIIT is now inviting proposals by potential organizers willing to host focus periods in the spring or autumn of 2027. Deadline to submit proposals is October 6th.

[Read more on the ELLIIT homepage.](#)

Gender & Diversity Projects 2025

Proposals for gender & diversity projects fall 2025 are accepted until August 30th, and reviewed during September.

[Read the call text here.](#)

Robot interaction in action

Robots in our every day environments place new demands on communication and movement planning. A collaboration between the Department of Culture and Communication, the Department of Computer and Information Science, and the Department of Electrical Engineering at Linköping University deployed a robot in the students' center to collect data and showcase the ongoing research. The students' center building is described as a great place to study interaction and behaviors of both robot and humans, as it gathers a diverse group of people from all over the university. Researchers involved in the development of the robot are Franziska Babel, Hannah Pelikan, Björn Olofsson and Ola Johansson.

See the robot in a video on Linköping University's LinkedIn.



Photo: Simon Höckerbo

Meet the Humanoid Robot Traffic Police

Professor Alexey Vinel, Halmstad University, heads a collaborative project on humanoid robots for traffic safety. Find out more about the test where researchers looked at how elementary school students reacted to a so called traffic robot – a humanoid robot that is supposed to ensure the safe crossing of children across the road in front of schools.

Read more about the project in a feature from Halmstad University.



Photo: Marek Galinski

Events



ELLIIT Workshop 2024 in Lund.

ELLIIT Annual Workshop - Register

The annual ELLIIT Workshop 2025 will take place in Norrköping, October 21st to 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.

Awards

2025 Sven Berggren Prize

Professor Anders Ynnerman, LiU, has received the 2025 Sven Berggren Prize of Kungliga Fysiografiska Sällskapet in Lund, an Academy of Natural Sciences, Medicine and Technology founded in 1772. The society presents the award for his leadership in scientific visualization and computer graphics, heading internationally recognized research in the field. Through his work in visualization, Anders Ynnerman has contributed to research and innovation across a broad range of areas relevant to the society.

The Sven Berggren prize winner gives a lecture open to the public, the event takes place at Grand Hotel in Lund on October 8th, at 18:30.



*Anders Ynnerman
Photo: LiU*

2025 Aaron D. Wyner Distinguished Service Award

The IEEE Information Theory Society 2025 Aaron D. Wyner Distinguished Service Award has been presented to **John B. Anderson**, Senior Professor in Digital Communication at Lund University. The award honors an individual who has shown outstanding leadership in, and provided long-standing, exceptional service to, the Information Theory community.

Best Paper Awards

At the 2025 ACM SIGPLAN International Conference on Software Language Engineering (SLE), Anton Risberg Alaküla, Niklas Fors and Christoph Reichenbach were awarded with the Distinguished Artifact Award for their artifact connected to the paper Dynamic Dependency-Based Purity Checking.

Anton Risberg Alaküla, Niklas Fors, and Christoph Reichenbach. 2025. Dynamic Dependency-Based Purity Checking. In Proceedings of the 18th ACM SIGPLAN International Conference on Software Language Engineering (SLE '25) >>



Anton Risberg Alaküla

The IEEE Antennas and Propagation Edward E. Altshuler Prize Paper Award has been awarded to Johan Lundgren and Mats Gustafsson, LU. The prize is awarded to recognize the best contribution published in the IEEE Antennas and Propagation Magazine in the preceding calendar year.

The paper studied modes of radiating objects, and showed that the number of significant characteristic modes is limited and can be estimated from simple, measurable quantities: large objects are governed by the average shadow they cast when illuminated, small objects are constrained by their polarizability. The finding bridges theory and practice, helping engineers quickly determine whether an antenna design region is making full use of its physical potential.

M. Gustafsson and J. Lundgren, "Degrees of Freedom and Characteristic Modes: Estimates for radiating and arbitrarily shaped objects," in IEEE Antennas and Propagation Magazine, vol. 66, no. 6, pp. 18-28, Dec. 2024.



Xuesong Cai, Erik L. Bengtsson, Ove Edfors and Fredrik Tufvesson, LU, have been awarded The IEEE Antennas and Propagation **2025 Harold A. Wheeler Applications Prize Paper Award**, presented to the authors of the best application paper published in the IEEE Transactions on Antennas and Propagation during the previous year.

X. Cai, E. L. Bengtsson, O. Edfors and F. Tufvesson, "A Switched Array Sounder for Dynamic Millimeter-Wave Channel Characterization: Design, Implementation, and Measurements," in IEEE Transactions on Antennas and Propagation, vol. 72, no. 7, pp. 5985-5999, July 2024.

Upcoming Defenses

Doctoral Defense:

Ashkan Sheikhi, Communications Engineering

Time: September 19, at 09:15

Place: Lund LTH, E:1406 (E-building)

Jianan Bai, Communication Systems

Time: October 3, at 9:15

Place: Linköping, Planck (B-building, Campus Valla)

Johan Edstedt, Computer Vision

Time: October 8, at 09:15

Place: Linköping, Zero (Zenit building)

Licentiate Seminar:

Lo Gullstrand Heander, Software Development and Environments

Time: September 11, at 13:15

Place: Lund LTH, E:C (E-building)

Ashkan Sheikhi

>> Scaling massive MIMO with imperfect transceivers

Jonas Hansson

>> Scalable Control Design for Networked Systems: Coordination Through Local Cooperation

Alexandru Dura

>> Fully Declarative Specification of Static Code Checkers

Joel Oskarsson

>> Modeling Spatio-Temporal Systems with Graph-based Machine Learning

Frans Skarman

>> Improved Tooling for Digital Hardware Development: Spade, Surfer, and more

Huynh Khanh Vi Tran

>> Characterizing and Assessing Test Case and Test Suite Quality

Licentiate:

Nada Ali

>> Exploring Architectures for Accelerating Advanced Massive MIMO Algorithms and Applications



Jürgen Börstler

As one of the first ELLIIT-associated researchers since 2010, Jürgen Börstler has had a renowned career in Software Engineering. We talked to him about human factors in software development, issue management, and AI-generated podcasts based on research papers.

[Meet Jürgen Börstler >>](#)

Did you know...

...that between **2010** and **2023**, ELLIIT researchers were involved in a total of

4115



journal articles and conference papers?

48% of them are publications with international co-authorship

