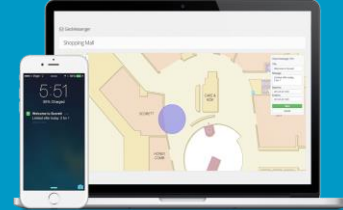


Linköping Center for Sensor Informatics and Control (LINK-SIC)

-
A VINNOVA Competence Center

Presentation and updates

Svante Gunnarsson
Center Director
Linköping University





Center partners

Linköping University
ABB Corporate Research

ABB Cranes

ABB Robotics

SAAB Aeronautics

Scania

Atlas Copco Industrial Technique

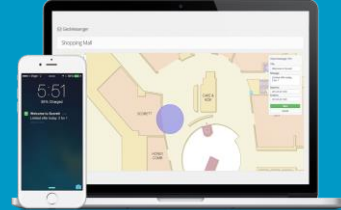
Actia Nordic

Alelion

Newton Nordic

Senion

UMS Skeldar



Basic facts

- Hosted by Linköping University, represented by the divisions of Automatic control and Vehicular systems, respectively, at the Department of Electrical Engineering.
- Started 2017-09-01, and runs for five years, with possible extension.
- The funding comes from three sources:
 - Cash funding from VINNOVA.
 - Cash and in-kind from the participating companies. The cash contribution is used for funding of one or two PhD students.
 - Cash and in-kind from the university.

Vision

The vision for LINK-SIC is to be an attractive and internationally competitive arena for industry-oriented research within Sensor Informatics and Control, contributing to growth and development of Swedish industry.

Research Strategy

- **PhD students projects (including industrial PhD students)**
- **Post docs, visiting researchers, etc.**
- **Industrial Post docs, Adjunct positions**
- **And:**
 - Core competence workshops and yearly center workshop.
 - International exchange.
 - Connection to education, e.g. via CDIO projects.
 - Student summer projects.
 - Master's theses.
 - Researchers from the LINK-SIC teams meet **all** students studying within the five year Engineering education programs at LiU.

Since last year

- Atlas Copco Industrial Technique new partner in the center.
 - Pre-study around smart batteries.
 - Pre-study around sensor based condition monitoring.
- PhD thesis by Roger Larsson, industrial PhD student from Saab.
- Two new PhD students: Filipe Barbosa and Nils Dressler (Atlas Copco)
- Journal and conference papers.
- Four student projects in collaboration with the SMEs.
- Continued collaboration with organizations for female students. Inspiration seminar with participation from ABB, Scania and Saab.
- New board member: Martin Karlsson (Atlas Copco).
- Visiting professor, Frank Willems.
- Visiting PhD student from Unicamp, Brazil.
- Pilot study around the SDGs.

Linköping Center for Sensor Informatics and Control (LINK-SIC)

Ett forskningssamarbete som driver utvecklingen av morgondagens hållbara teknologier inom robotteknik, flyg, marina tillämpningar samt avancerade fordonssystem.



EFFEKTIVISERING AV TRANSPORTSYSTEM

TILLÄMPNINGSSOMRÅDEN

ÖVERGRIPANDE MÅLSÄTTNINGAR



- Minskad bränslekonsumtion
- Emissionsreduktion
- Effektiva transporter

INDUSTRIELL KONKURENSKRAFT



- Produktionseffektivitet
- Innovationskapacitet
- Ekonomisk utveckling och tillväxt

KRITISKA SYSTEM



- Styr- och övervakningssystem
- Sensorfusion, uppkopplade system
- Samhällssäkerhet

In the pipeline

In addition to the regular activities:

- Joint work between Farnaz Adib Yaghmaie (postdoc) and Lennart Ljung (senior scientific advisor) around reinforcement learning. Workshop planned for spring 2020.
- Continued work based on the pre-studies with Atlas Copco.
- Two-year evaluation by VINNOVA and external reviewers.

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DIRECTOR



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Research Leaders & Area Coordinators

PhD Students
Senior researchers

Industrial PhD Students/Post-docs
Industrial Researchers

More information can be found via ...

- <https://liu.se/en/research/link-sic>