

ELLIIT Annual Workshop

22-23 October 2018

Linköping University

Program 22 October

10.00 Registration & coffee

Location: C4, C-house, Campus Valla

10.45 ELLIIT

Location: C4, C-house, Campus Valla

Introduction: Erik G Larsson

New recruitments: Jonas Unger

11.15 Project highlights

Chair: Oscar Gustafsson

Location: C4, C-house, Campus Valla

- Johan Eker - Edge Computing for Internet of Things
- Martin Karlsson - Robot Programming by means of Lead-Through and Haptic Feedback
- Emil Björnsson - The Road to Unlimited Wireless Capacity
- Liang Liu - Digital Baseband SoC for Distributed MIMO Systems

12.15 Lunch

Location: Kårallen

13.00 Keynote: Joakim Jaldén “Cell Detection by Functional Inverse Diffusion and Nonnegative Group Sparsity – Or How to Solve a Biotech Data Analysis Problem with Compressed Sensing”

Chair: Martina Maggio

Location: C4, C-house, Campus Valla

Abstract and Biography

14.00 Coffee and Poster session

Location: Research and Education Arena “Visionen”, B-house, Campus Valla

15.45-17.00 Parallel tracks

	Connectivity	Architectures	Intelligence
Speakers	Jiang Yang Alexey Vinel Petru Eles	Jörn W. Janneck Tomas Nordström Atila Alvandpour	Meysam Sadeghi Patrick Doherty Oskar Ljungqvist
Chair	Nahid Shahmehri	Zain-ul-Abdin	Gustaf Hendeby Daniel Axehill
Location	Algoritmen, B-house	Systemet, B-house	Ada Lovelace, B-house
	Details	Details	Details

19.00 Conference dinner

Location: Scandic Frimurarehotellet, St Larsgatan 14, Linköping

Program 23 October

9.00 Keynote: Slawomir Stanczak “Machine Learning in 5G Radio Access Networks”

Chair: Emil Björnsson

Location: A2, A-house, Campus Valla

Abstract and biography

10.00 Coffee

Location: Outside A2

10.30 Mini workshops

5G wireless (Open) Link to program

Coordinator: Ove Edfors

Location: Alan Turing, E-house

Open

Can Hardware Distortion Correlation be Neglected When Analyzing Uplink SE in Massive MIMO?

Emil Björnsson, LiU

An application-specific instruction-set processor for massive MIMO

Steffen Malkowsky, LU

Energy efficient analog front ends: Scaling laws and applications

Muris Sarajlić, LU

Co-Design of Robust and Secure Networked Embedded Control Systems

Coordinator: Anton Cervin

Location: Nollstället, B-house

Internal

Stream Computing Infrastructures

Coordinator: Jörn Janneck

Location: Visionen, B-house small conference room

Internal

Decision Support for Efficient and Effective Lean Testing

Coordinator: Nauman bin Ali

Location: Allen Newell, E-house

Internal

Scalable Language Tools for Cyber-Physical Systems

Coordinator: Görel Hedin

Location: Herbert Simon, E-house

Internal

Collaborative Robotic Systems

Coordinator: Patrick Doherty

Location: Transformen, B-house

Open, [Link to program](#)

Deep Vision: Multiple Object Tracking

Coordinator: Michael Felsberg

Location: Filtret, B-house (12 pers)

Internal

Local Positioning Systems

Coordinator: Kalle Åström

Location: Täljaren, B-house

Internal

Visual Decision Support

Coordinator: Anders Ynnerman

Location: Thomas Bayes, B-house

Open

Scalable Optimization for Control Systems

Coordinator: Anders G Hansson

Location: Nämnaren, B-house

Internal

Online Optimization and Control towards Autonomous Vehicle Maneuvering

Coordinator: Anders Robertsson

Location: John von Neumann, B-house

Internal

12.00 Lunch and conference ending

Location: Kårallen

12.00 ELLIIT Board Meeting

Location: Visionen, Big conference room, B-house