



ICT Platform Day

Poster Contributions Sorted by Schools and Research Groups

School of Electrical Engineering

Automatic Control Laboratory

Networked Control Systems Group

Faculty contacts: Karl Henrik Johansson, kallej@ee.kth.se, Mikael Johansson, mikaeli@kth.se, Carlo Fischione, carlofi@kth.se.

----- posters -----

Converging an Overlay Network to a Gradient Topology
Håkan Terelius, hakante@kth.se

Microsystem Technology Laboratory

Faculty contacts: Göran Stemme, stemme@s3.kth.se, Frank Niklaus, frank@kth.se, Hans Sohlström, hanss@kth.se, Joachim Oberhammer, joachim.oberhammer@ee.kth.se, Woutervan der Wijngaart, wouter@kth.se.

----- posters -----

Heterogeneous integration technology for combination of different wafer sizes using an expandable handle substrate

Fredrik Forsberg, ffors@kth.se, Niclas Roxhed, niclas.roxhed@ee.kth.se, Göran Stemme, Frank Niklaus.

Hermetic integration of liquids in MEMS by room temperature, high-speed plugging of liquid-filled cavities at wafer level

Mikael Antelius, Antelius@kth.se, Andreas Fischer, andreas.fischer@ee.kth.se, Frank Niklaus, Göran Stemme och Niclas Roxhed.

An apodized surface grating coupler enabling the fabrication of silicon photonic nanowire sensor circuits in one lithography step

Kristinn B. Gylfason, kristinn.gylfason@ee.kth.se, Mikael Antelius, Antelius@kth.se, Hans Sohlström.

Industrial Information and Control Systems Laboratory

Faculty contacts: Torsten Cegrell, torsten.cegrell@ics.kth.se, Pontus Johnson, pj101@ics.kth.se, Lars Nordström, lars.nordstrom@ee.kth.se.

----- posters -----

The Enterprise Architecture Analysis Tool
Magnus Österlind, Magnus.Osterlind@ics.kth.se.

Cyber security modeling and analysis for industrial control systems
Hannes Holm, Hannes.Holm@ics.kth.se.

Communication Networks Laboratory

Faculty contacts: Rolf Stadler, stadler@kth.se, Gunnar Karlsson, gk@ee.kth.se, Victoria Fodor, vfodor@s3.kth.se, Thomas Lindh, thomas.lindh@syd.kth.se, György Dan, gyuri@ee.kth.se, Panos Papadimitratos, papadim@kth.se.

----- posters -----

On the gain of cognition and cooperation in spectrum sharing
Liping Wang, lipingw@kth.se.

A game theoretic analysis of selfish content replication on graphs
Valentino Pacifici, pacifici@kth.se.

Network Management by Network Search
Misbah Uddin, ahmmud@kth.se.

Gossip-based Resource Management for Large Cloud Environments
Rerngvit Yanggratoke, rerngvit@kth.se.

Communication Theory Laboratory

Faculty contacts: Mikael Skoglund, skoglund@ee.kth.se, Lars Kildehøj Rasmussen, lkra@kth.se, Tobias Oechtering, oech@kth.se.

----- posters -----

The Discrete Superposition Model: Approximating AWGN Capacity
Nicolas Schrammar, nisc@kth.se, Mikael Skoglund.

Nonlinear Transmission Strategies for a General Half-duplex
AWGN Relay Channel
Ali Abbas Zaidi, zaidi@kth.se.

Compressive Sensing
Dennis Sundman, dennis.sundman@ee.kth.se.

Smartphone-based traffic information system**
(collaborative work with ICT school – Circuits and Devices)
Tao Sha stao@kth.se, Vasileios Manolopoulos, vama@kth.se,
P. Papadimitratos, Ana Rusu.

Sound and Image Processing Lab

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----- posters -----

SIFT-Based Improvement of Depth Imagery
Haopeng Li, haopeng@ee.kth.se.

Depth consistency testing for improved view interpolation
Pravin Rana, prara@kth.se.

School of Computer Science and Communication

Theoretical Computer Science Laboratory

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----- posters -----

P2P Social Networks With Cryptographically Protected Privacy
Oleksandr Bodriagov, obo@kth.se.

Approximating the Restricted Santa Claus Problem in
Quasipolynomial Time
Lukáš Poláček, polacek@csc.kth.se, Ola Svensson, osven@kth.se.

Efficiency limitations for sigma-protocols
Björn Terelius, terelius@kth.se, Douglas Wikström, dog@csc.kth.se.

Robotics and Computer Vision Laboratory

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----- posters -----

Robotics and Computer Vision
Alper Aydemir aydemir@kth.se and Niklas Bergstrom nbergst@kth.se.

Computational Biology Laboratory

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----- posters -----

Signal Processing of High-throughput Sequencing Data
Nicolas Innocenti, njain@kth.se.

An abstract Model of the basal ganglia, reward learning and action selection
Pierre Berthet^{1,2}, berthet@kth.se, Anders Lansner ^{1,2,3}
1 Stockholm Universitet 2 Stockholm Brain Institute 3 Kungliga Tekniska Högskolan

Speech, Music and Hearing Laboratory

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Interactive sonification of elite rowers

Gaël Dubus, dubus@kth.se.

Human Computer Interaction Laboratory, Media Technology and Graphics Art and VIC

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----- posters -----

Usability Evaluation in Software Development practice

Marta Kristín Lárusdóttir, Marta@hr.is.

Moving from high flowing information systems to the limited world of mobility

Marcus Nilsson, marcuni@KTH.se.

Towards Empirical User Interface Modeling

Filip Kis, fkis@kth.se.

EVERT -energy representations for probing electric vehicle practice

Anders Lundström, andelund@kth.se.

CESC

Faculty contacts: Mattias Höjer, mattias.hojer@abe.kth.se.

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Hacking for sustainability

Jorge Zapico, zapico@kth.se.

E-science at CSC-, SCI, BIO and ITM Schools

Dept. of Theoretical Chemistry, BIO-School

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Dept. of Mechanics, SCI-School

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Dept. of Applied Material Physics, ITM – School

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PDC

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CERC

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VIC

Faculty contacts: Björn Thuresson, thure@csc.kth.se.

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The Visualisation Studio at KTH/CS

Leif Handberg leifh@csc.kth.se, Björn Thuresson thure@csc.kth.se.

Theoretical modeling of Electronic Structure within
the Swedish E-science Research Center

Bogdan Frecus bogdanf@TheoChem.kth.se, Hans Ågren, Anna Delin.

Adaptive runtime control and automatic performance analysis for large-scale scientific
simulations

Xavi Aguilar xaguilar@pdc.kth.se, Michael Schliephake michs@kth.se.

Cyclic bursts in rotating wall turbulence

Geert Brethouwer geert@mech.kth.se, Liang Wei wei@mech.kth.se.

School of Information and Communication Technology

Dept. for Electronic Systems

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Embedded System Synthesis from Formal Models

Ingo Sander, Johnny Öberg

Deployment of a Spinning Space Web in a Micro-Gravity Environment

Ingo Sander, Johnny Öberg

Dynamically Reconfigurable Resource Array - Architecture

Mohammad Ali Shami, shami@kth.se, Mohammad Badawi, badawi@kth.se, Adeel Tajammul, tajammul@kth.se.

Dynamically Reconfigurable Resource Array - Methodology

Li Shuo shuol@kth.se, Omer Malik, omerm@kth.se.

A Real-time Emulator for RF/Analog Front End and Radio Channels

Jamshaid Sarwar Malik, jamshaid47@hotmail.com.

Bioinformatics Personal Supercomputer

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Resource Management for Massively Parallel Architectures

Syed M A H Jafri, jafri@kth.se.

Dept. for Devices and Circuits

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Graphene-Modeling Strain Effects on Band Structure

Anderson Smith, andsmi@kth.se, Jiantong Li, jiantong@kth.se, Sam Vaziri vaziri@kth.se.

Graphene-Device Fabrication and Prospective Applications

Anderson Smith, andsmi@kth.se, Jiantong Li, jiantong@kth.se, Sam Vaziri vaziri@kth.se.

Carbon Technologies

Anderson Smith, andsmi@kth.se, Jiantong Li, jiantong@kth.se, Sam Vaziri vaziri@kth.se.

Fully etched grating couplers for atomic layer deposited horizontal slot waveguide.
Maziar Manouchehry, mamn@kth.se.

Experimental study of in situ Si oxidation for ALD high-k/metal gate stacks
Eugenio Dentoni Litta, eudl@kth.se, Per-Erik Hellström, pereh@kth.se,
Christoph Henkel, chenkel@kth.se, Mikael Östling

Smartphone-based traffic information system

Tao Sha stao@kth.se, Vasileios Manolopoulos, vama@kth.se,
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Dept. for Communication Systems

Radio Communication Systems Laboratory

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----- posters -----

Interference Management in Future Mobile Broadband Systems

Du Ho Kang, dhkang@kth.se.

Energy and Cost Efficient Ultra High Capacity Wireless Access

Sibel Tombaz, sibel@kth.se.

A model for aggregate adjacent channel interference in TV White Space

Evanny Obregon, ecog@kth.se.

QUASAR – Quantitative Assessment of Secondary Spectrum use

Lei Shi, lshi@kth.se.

Network Coding based on Product Codes in Cellular/Relay Systems

Tafzeel Ur Rehman Ahsin, tafzeel@kth.se.

Selfish dynamic spectrum access in multichannel wireless networks
Ali Özyagci, ozyagci@kth.se.

Mobile Services Laboratory

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Network- and Quality of Experience (QoE)-aware Resource Management Schemes for Video Streaming Services
Ali Yavari, mail@aliyavari.com.

Towards a context- and privacy-aware framework for mobile video content delivery: Enabling rich QoE to mobile users while protecting their privacy
Alisa Devlic, devlic@kth.se.

Towards a Novel Resource Management Scheme in Wireless Networks Based on Quality of Experience
Luis Guillermo Martinez Ballesteros, lgmb@kth.se.

COSEM - Convergent and Semantic Wireless networks
Pietro Lungaro, pietro@kth.se.

SL - Semantic Light
Pietro Lungaro, pietro@kth.se.

The **Next Generation Optical Networks** laboratory

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NEGONET - Next Generation Optical Networks
Lena Wozinska, Wosinska@kth.se, Paolo Monti, pmonti@kth.se, Cicek Cavdar, cavdar@kth.se, Jawwad Ahmed, jawwad@kth.se, Pawel Wiatr, wiatr@kth.se.

Research Activities in Optical Backbone Networks
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Selected Research Activities in Optical Access Networks
Cicek Cavdar, cavdar@kth.se, Jawwad Ahmed, jawwad@kth.se, Pawel Wiatr, wiatr@kth.se.

How to Cut the Electric Bill in Optical WDM Networks with Time-zones
C. Cavdar, A. Yayimli and L. Wosinska

Effect of Delay Tolerance in WDM Network with Differentiated Services
A. Muhammad, C. Cavdar, L. Wosinska and R. Forchheimer

Telecommunication Systems Laboratory

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Carenet: Extending Dedicated Healthcare Networks
Bruce Zamaere, bsiza@kth.se.

Libnetvirt: the network virtualization library
Daniel Turull, danieltt@kth.se.

Offloading Packet Processing in a Combined Router/Server
Voravit Tanyingyong, voravit@kth.se.

Dept. for Software and Computer Systems

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----- posters -----

Sepidar: MarketBased Live Streaming on the Gradient Overlay Network
Amir H. Payberah, amir@sics.se, Jim Dowling, Fatemeh Rahimian, Seif Haridi

Vinifera: a gossip-based hybrid overlay for content-based publish/subscribe
Fateme Rahimian, fa.rahimian@gmail.com, Šarunas Girdzijauskas, sarunas@sics.se, Amir Payberah, Seif Haridi.

Self-Management for Large Scale Distributed Systems
Ahmad Al-Shishtawy, ahmadas@kth.se.

Experiencing traffic data
Pedro Sanches, sanches@kth.se, Magnus Boman.

Software process improvement.
Natalja Nikitina, nikitina@kth.se, Mira Kajko-Mattsson.