Software Center

CHALMERS

Welcome to the
Software Center reporting workshop
December 5, 2019: Gothia Towers, Gothenburg

10:00-10.15: Welcome & introduction: Jan Bosch

10:15-10.45: Industrial perspectives:
up-dates from Software Center partners on the impact of digitalization:

- Wärtsilä: Tomi Voullet
- Scania: Viktor Kaznov

10:45-11.15 Theme presentations and overview of projects:

- Continuous Delivery: Kristian Sandahl
- Continuous Architecture: Jan Carlson
- Metrics: Miroslaw Staron
- Customer Data- and Ecosystem-Driven Development: Helena Holmström Olsson

11.15-12.30: Software Center exploration space
& coffee – overview of Software Center projects

12:30-13.30 Lunch (at own expense)

13:30-15.00 In-depth community sessions
(see detailed program on second page)

- Product management (Room G1):
  Helena Holmström Olsson
- Software engineering (Room R11):
  Miroslaw Staron, Kristian Sandahl, Jan Carlsson
- Systems engineering (Room R12):
  Anders Kvist & Magnus Timmerby

15.00-15.15: Coffee

15:15-16:15: AI and Machine learning in Software Center: AI4SE, SE4AI, & Data management (Room G1):

- 15:15-15:25 Opening: Jan Bosch
- 15:25-15:35 AI for SE and systems management: Miroslaw Staron and Wilhelm Meding
- 15:35-15:45 Unsupervised learning for test case diversity: Francisco Gomes
- 15:45-15:55 AI and Data-driven development: Helena Holmström Olsson
- 15:55-16:05 Non-Functional Requirements for Machine Learning & Human Factors in Autonomous Drive: Jennifer Horkoff
- 16:05-16:15 AI research & CHAIR – Ivica Crnkovic

16.15-16.45: Company perspectives on AI (Room G1)

- AI-powered R&D at Ericsson:
  Henric Stenhoff, Head of DSI Analytics (DU Networks)
- Saab: Emil Rosenberg
- Bosch Sensortec & AI: Staffan Lindgren, Teamleader
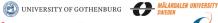- CEVT: Shafiq Urréhman
- Volvo Cars: Ashok.C Koppisetty

16.45-17.00: Summary and closing: Jan Bosch

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Contact us
Jan Bosch, Director,
jan.bosch@software-center.se
031-7725716

In-depth community sessions:

Projects

Product management: Room G1
Chair: Helena Holmström Olsson
- 13:30 – 13:40 Opening – Jan Bosch
- 13:40 – 13:50: Requirements Engineering for Large-Scale Agile System Development (#27): Eric Knauss
- 13:50 – 14:00: Accelerating Digitalization Through Data (#5): Helena H. Olsson
- 14:00 – 14:10: Data-Driven Continuous Evolution of Autonomous Systems of Systems (#19): David Issa Mattos
- 14:10 – 14:20: Volvo Cars
- 14:20 – 14:30: Wärtsilä
- 14:30 – 14:40: Axis Communications
- 14:40 – 15:00: Discussion and closing

Software engineering: Room R11
Chairs: Miroslaw Staron, Kristian Sandahl, Jan Carlsson
- 13.30 – 13.45: Investigation of exploratory testing with several companies: Torvald Mårtensson
- 13.45 – 14.00: Flaky tests detector + analysis of test smells at two companies: Azeem Ahmad
- 14.00 – 14.15: Test prioritization using machine learning: Khaled Al-Sabbagh
- 14.15 – 14.30: Combinatorial testing: Eduard Enoiu
- 14.30 – 14.45: Managing Architectural Technical Debt: Antonio Martini
- 14.45 – 15.00: Managing Modelling Inconsistencies: Robbert Jongeling

Systems engineering: Room R12
Chairs: Anders Kvist & Magnus Timmerby
- Re-visit workshop from last sprint on AB Volvo: All participants
- Model-Driven Iterative Development of Cyber-Physical System: Marjan Sirjani
- Goals for coming sprint: Anders Kvist
- Coming workshop on Tetra Pak: Magnus Timmerby

Cont. Architecture
- #34, Safety Assurance in Continuous Deployment:
- Managing Architectural Technical Debt: Antonio Martini, Terese Besker
- Managing Modelling Inconsistencies: Jan Carlson, Robbert Jongeling

Cont. Delivery
- #29, Modeling and Analyzing Collaborating Machines: Marjan Sirjani, Ali Sadaghat
- #18, Data Visualization for Continuous Integration: Kristian Sandah, Azeem Ahmad
- #6, Enterprise Scale Continuous Integration and Delivery: Daniel Ståhl, Torvald Mårtensson
- #30, Aspects of automated testing: Kristian Sandahl, Azeem Ahmad, Francisco Gomes
- Human aspects of project development (associated project): Robert Feldt, Per Lenberg

Ecosystems
- #26, API Strategies: Jennifer Horkoff, Juho Lindman, Eric Knauss
- #5, Accelerating Digitalization Through Data: Helena H. Olsson
- #27, Requirements Engineering for Large-Scale Agile System Development: Eric Knauss, Jennifer Horkoff, Rashidah Kasauli, Jan-Phillip Steghofer, Rebekka Wohlrab
- #19, Data-Driven Continuous Evolution of Autonomous Systems of Systems: David Issa Mattos
- #9, Strategic Ecosystem-Driven R&D Management: Helena H. Olsson
- #33, HoliDev: Ivica Crnkovic

Metrics
- Continuous Product and Organizational Performance: Miroslaw Staron, Gul Calikli
- Longitudinal Measurement of Agility and Group Development: Lucas Gren
- Quasar@Car - Quantifying meta-model changes: Miroslaw Staron, Darko Durisic
- DeVeLOP: Machine learning components in modern cars: Miroslaw Staron, Darko Durisic
- RAWFP - Resource Aware Functional Programming: Patrik Jansson
- Size and Quality between Software Development Approaches: Regina Hebig
- VISEE - Verification and Validation of ISO 26262 requirements at the complete EE system level: Rakesh Rana

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ERICSSON · BOSCH · VOLVO · SIEMENS · SAAB · JEPPESEN · SCANIA · AXIS COMMUNICATIONS · CEVT

Rooms: 2nd floor (Conference level

**G1
Plenary**

WC

Exploration space, posters & coffee

**Gothia
Conference
Infodesk**

**Svenska mässan
Exhibition hall**

R11

R12

R11: Software engineering

R12: Systems engineering

G1: Plenary

Exploration space, posters & coffee

R11 & R 12 in Tower 3, same floor as plenary/G1

R11: Software engineering
R12: Systems engineering