



## Systems, Software and Safety 2017

System and software safety in electronic systems is becoming increasingly central in many industries and indeed as part of often critical societal infrastructure. The systems become ever more complex, connected and autonomous — and the software continues to grow. Some stakeholders are quite mature in the handling of safety, whereas others have only recently started their safety journey.

The Scandinavian conference on safety critical systems and software has become a central meeting place for Scandinavian safety experts from industry, public and academic organizations. It is an opportunity to share experiences and make new contacts. The conference features a first day with overview presentations, followed by a day of parallel workshops about different challenges, techniques, standards and methods. In the workshops there will be a mix of new presentations and follow up discussions of presentations from day 1 led by a moderator. At the end of the first day there is conference dinner with opportunities to establish further contacts among the participants.

Warm Welcome!

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**TIME** 22-23 May 2017

**PLACE** Spårvagnshallarna, Stockholm

**ORGANIZERS** Addalot Consulting AB, KTH and ICES

**COST (excl. VAT):** **Early bird\*\*** **Late**

Two days*	3300:-	3950:-
Only Day 1*	1900:-	2300:-
Only Day 2	1400:-	1700:-

\*Conference dinner is included.

\*\*Early bird price before 17 March

Final registration: 15 May

**Full program and registration**

<http://safety.addalot.se/>

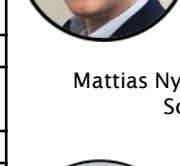
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 Innovative Centre for Embedded Systems

Version 170116

**Monday 22 May - Plenary day**

Time	Content	Presenter
08:00-09:00	Registration and coffee	
09:00-09:10	Welcome and introduction	Nicolas Martin-Vivaldi/ Martin Törngren
09:10-10:10	<b>Keynote: Engineering Safety and Security in the era of the Industrial Internet of Things</b>	Dr Robert Oates, Rolls-Royce
10:10-10:30	Coffee	
10:30-11:05	Requirements specification tool for safety critical systems based upon Linked Data	Prof. Mattias Nyberg, Scania
11:05-11:40	Agility and Resilience	Tor Stålhane, NTNU
11:40-12:40	Lunch	
12:40-13:40	<b>Keynote: Safety of digital health technologies</b>	Prof. Farah Magrabi, Macquarie University, Australia
13:40-14:15	Documenting the architecture	Even-André Karlsson, Addalot
14:15-14:50	Lessons learned: How to write good safety plans	Dr. Henrik Thane, Safety Integrity AB
14:50-15:15	Coffee	
15:15-15:50	Updated FMV handbook on Safety Critical Software	Björn Koberstein, FMV
15:50-16:25	Bridging Functional Safety Analysis and Software Architecture Assessment	Mirosław Staron, Chalmers / University of Gothenburg
16:25-17:00	Challenges for ensuring functional safety for connected autonomous vehicles	Fredrik Warg, RISE Research Institutes of Sweden

Nicolas Martin-Vivaldi  
Addalot ConsultingMartin Törngren  
KTHRobert Oates  
Rolls-RoyceMattias Nyberg  
ScaniaTor Stålhane  
NTNUFarah Magrabi  
Macquarie University  
Australia**Tuesday 23 May - Parallel workshops 08:30-17:00****Techniques for safety development**

Prof. Mattias Nyberg: Requirements specification tool for safety critical systems based upon Linked Data,  
Henrik Thane: Lessons learned: How to write good safety plans,  
Jingyue Li: Safety and security analysis using STPA,  
Vikash Katta: Using traceability information for building safety cases,  
Narges Khakpour: Provably Secure Self-Protecting Systems  
**Lunch 12:00 - 13:00**

**Combining Agile and Safety**

Interactive workshop where the challenges with combining Safety and Agile methods will be discussed  
Workshop will be facilitated by Tor Stålhane and Nicolas Martin-Vivaldi

**Cooperative functions in safety-critical System-of-Systems scenarios**

Hans Hansson: Introduction,  
Irfan Slijivo: Facing design and assurance challenges of security-informed safety-critical vehicle platoons via FLAR2SAF,  
Ileana Cerasani: CO-CPS: A sample XSTAMPP usage in V2I traffic management scenario based on STAMP model  
**Break 10:30 - 11:00**

**Safety and software architectures**

Ilya Verbitskiy: Architectural Risk Analysis,  
Mohammad Mousavi: Safety Analysis of Automotive Software: From Functional Safety to Component Testing,  
Even-André Karlsson: Documenting the architecture,  
Andreas Platschek: An Approach to Performing a Layers of Protection Analysis for Complex Software,  
Nicholas Mc Guire: Diversity Approaches Investigated for the SIL2LinuxMP Architecture,  
Mirosław Staron: Bridging Functional Safety Analysis and Software Architecture Assessment - Safety scenarios in Architecture Trade-off Analysis Method (ATAM),  
Alex Wilson: Use of COTS OS with Lock Step for Rail Safety,  
Joakim Strandberg: Ada 2012 and SPARK 2014

**Where are the Safety Standards going?**

Barbara Gallina: Towards an ISO 26262-compliant OSLC-based Tool Chain Enabling Continuous Self-assessment,  
Illya Rudkin: Standardizing Technologies for Safety Critical Systems,  
Even-André Karlsson: Comparing 26262 and ASPICE,  
Andrzej Wardzinski: Managing safety case relations to system models,  
Björn Koberstein: Updated FMV handbook on Safety Critical Software  
**Lunch 12:00 - 13:00**

**Architecture and Safety for Autonomous Systems**

Masoumeh Parseh: From hazard analysis to verification, real and imagined gaps when preparing for autonomy in the automotive domain,  
John Birch: Safety Assurance Argument Strategies for Vehicle Autonomy,  
Martin Törngren and Viktor Kaznov: Architecting and safety of autonomous vehicles - preliminary findings from the Archer project,  
Naveen Mohan: ATRIUM: Design method for architecting under uncertain information,  
Fredrik Warg: Challenges for ensuring functional safety for connected autonomous vehicles

Even-André Karlsson  
Addalot ConsultingHenrik Thane  
Safety Integrity ABBjörn Koberstein  
FMV  
Mirosław Staron  
Chalmers  
University of  
GothenburgFredrik Warg,  
RISE Research  
Institutes of Sweden

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