

SAFECOMP 2015 Conference Programme

September 23-25, 2015
 TU Delft Congress Centre
 Mekelweg 5
 2628 CC Delft

Wednesday, 23 rd September 2015	
8:45 - 9:00	Welcome and Opening
9:00 - 10:00	Keynote: Does IoT stands for Internet of Threats and other stories -by <i>Andrey Nikishin</i> (Kaspersky Labs, UK)
10:00 – 10:50	Session 1: Flight Systems (Session chair: Friedemann Bitsch)
<u>10:00-10:25</u>	Modeling Guidelines and Usage Analysis Towards Applying HiP-HOPS Method to Airborne Electrical Systems <i>Carolina D. Villela, Humberto H. Sano, Juliana M. Bezerra</i>
<u>10:25-10:50</u>	The Formal Derivation of Mode Logic for Autonomous Satellite Flight Formation <i>Anton Tarasyuk, Inna Pereverzeva, Elena Troubitsyna, and Timo Latvala</i>
10:50 – 11:20	Coffee/Tea Break
11:20 – 13:00	Session 2: Automotive embedded systems (Session chair: Erwin Schoitsch)
<u>11:20-11:45</u>	Simulation of Automotive Security Threat Warnings to Analyze Driver Interpretations and Emotional Transitions <i>Robert Altschaffel, Tobias Hoppe, Sven Kuhlmann, Jana Dittmann</i>
<u>11:45-12:10</u>	Improving Dependability of Vision-Based Advanced Driver Assistance Systems Using Navigation Data and Checkpoint Recognition <i>Ayhan Mehmed, Sasikumar Punnekkat, Wilfried Steiner, Giacomo Spampinato, Martin Lettner</i>
<u>12:10-12:35</u>	Safely Using the AUTOSAR End-to-End Protection Library <i>Thomas Arts and Stefano Tonetta</i>
<u>12:35-13:00</u>	A Structured Validation and Verification Method for Automotive Systems considering the OEM/Supplier Interface <i>Kristian Beckers, Isabelle Côté, Thomas Frese, Denis Hatebur, and Maritta Heisel</i>
13:00 – 14:00	Lunch Break
14:00 – 15:15	Session 3: Automotive software (Session chair: Maritta Heisel)
<u>14:00-14:25</u>	Model-based analysis for safety critical software <i>Stefan Gulan, Jens Harnisch, Sven Johr, Roberto Kretschmer, Stefan Rieger, Rafael Zalman</i>
<u>14:25-14:50</u>	Integrated Safety Analysis Using Systems-Theoretic Process Analysis and Software Model Checking <i>Asim Abdulkhaleq and Stefan Wagner</i>
<u>14:50-15:15</u>	Back-to-Back Fault Injection Testing in Model-Based Development <i>Peter Folkesson, Fatemeh Ayatollahi, Behrooz Sangchoolie, Jonny Vinter, Mafijul Islam, Johan Karlsson</i>
15:15 – 15:45	Coffee/Tea Break

15:45 – 16:10	Session 4: EWICS (Session Chair: Floor Koornneef)
<u>15:45-16:10</u>	EWICS presentations on the European Workshop on Industrial Computer Systems and its current working groups
16:10 – 17:00	Session 5: Error detection (Session chair: Peter Bishop)
<u>16:10-16:35</u>	Understanding the Effects of Data Corruption on Application Behavior Based on Data Characteristics <i>Georgios Stefanakis, Vijay Nagarajan, Marcelo Cintra</i>
<u>16:35-17:00</u>	A multi-layer anomaly detector for dynamic service-based systems <i>Andrea Ceccarelli, Tommaso Zoppi, Massimiliano Itria, Andrea Bondavalli</i>
17:00	CLOSURE DAY 1
18:00-20:00	Welcome Reception at the Town Hall
Thursday, 24th September 2015	
9:00 - 10:00	Keynote: Medical devices, Electronic Health Records and assuring Patient Safety: future Challenges? -by <i>Cor Kalkman</i> (Utrecht University Medical Centre)
10:00 – 10:50	Session 6: Medical safety cases (Session chair: Geoff Duke)
<u>10:00-10:25</u>	Safety Case Driven Development for Medical Devices <i>Alejandra Ruiz, Paulo Barbosa, Yang Medeiros and Huascar Espinoza</i>
<u>10:25-10:50</u>	Towards An International Security Case Framework for Networked Medical Devices <i>Anita Finnegan, Fergal McCaffery</i>
10:50 – 11:20	Coffee/Tea Break
11:20 – 13:00	Session 7: Medical systems (Session chair: Jérémie Guiochet)
<u>11:20-11:45</u>	Systems-theoretic Safety Assessment of Robotic Telesurgical Systems <i>Homa Alemzadeh, Daniel Chen, Andrew Lewis, Zbigniew Kalbarczyk, Jaishankar Raman, Nancy Leveson, and Ravishankar Iyer</i>
<u>11:45-12:10</u>	Towards Assurance for Plug & Play Medical Systems <i>Andrew L. King, Lu Feng, Sam Procter, Sanjian Chen, Oleg Sokolsky, John Hatcliff, Insup Lee</i>
<u>12:10-12:35</u>	Risk Classification of Data Transfer in Medical Systems <i>Dagmar Rosenbrand, Rob de Weerd, Lex Bothe, and Jan Jaap Baalbergen</i>
<u>12:35-13:00</u>	Requirement Engineering for Functional Alarm System for Interoperable Medical Devices? <i>Krishna K. Venkatasubramanian, Eugene Y. Vasserman, Vasiliki Sfyrla, Oleg Sokolsky, and Insup Lee</i>
13:00 – 14:00	Lunch Break
14:00 – 15:15	Session 8: Architectures & testing (Session chair: Francesca Saglietti)
<u>14:00-14:25</u>	The Safety Requirements Decomposition Pattern <i>Pablo Oliveira Antonino, Mario Trapp, Paulo Barbosa, Edmar C. Gurjão, Jeferson Rosário</i>
<u>14:25-14:50</u>	Automatic architecture hardening using safety patterns <i>Kevin Delmas, Rémi Delmas, and Claire Pagetti</i>
<u>14:50-15:15</u>	Modeling the impact of testing on diverse programs <i>Peter Bishop</i>
15:15 – 15:45	Coffee/Tea Break

15:45 – 16:35	Session 9: Safety cases (Session chair: Nick Chozos)
<u>15:45-16:10</u>	A Model for Safety Case Confidence Assessment <i>J�r�mie Guiochet, Quynh Anh Do Hoang, and Mohamed Kaaniche</i>
<u>16:10-16:35</u>	Towards a Formal Basis for Modular Safety Cases <i>Ewen Denney and Ganesh Pai</i>
16:35	CLOSURE DAY 2
16:45-22:00	Departure of busses and Conference Dinner
Friday, 25th September 2015	
9:00 - 10:00	Keynote: Cyber (In-)security of Industrial Control Systems: a Societal Challenge -by <i>Eric Luijff</i> (TNO, NL)
10:00 – 10:50	Session 10: Security attacks (Session chair: Rolf Schumacher)
<u>10:00-10:25</u>	Quantifying Risks to Data Assets Using Formal Metrics in Embedded System Design <i>Maria Vasilevskaya and Simin Nadjm-Tehrani</i>
<u>10:25-10:50</u>	ISA2R: Improving Software Attack and Analysis Resilience via Compiler-level Software Diversity <i>Rafael Fidler, Sebastian Banescu, and Alexander Pretschner</i>
10:50 – 11:20	Coffee/Tea Break
11:20 – 13:00	Session 11: Cyber security & integration (Session chair: Thomas Pfeiffenberger)
<u>11:20-11:45</u>	Barriers to the Use of Intrusion Detection Systems in Safety-Critical Applications <i>Chris W. Johnson</i>
<u>11:45-12:10</u>	Stochastic modeling of safety and security of the e-Motor, an ASIL-D device <i>Peter T. Popov</i>
<u>12:10-12:35</u>	Organisational, Political and Technical Barriers to the Integration of Safety and Cyber-Security Incident Reporting Systems <i>Chris W. Johnson</i>
<u>12:35-13:00</u>	A Comprehensive Safety, Security, and Serviceability Assessment Method <i>Georg Macher, Andrea H�ller, Harald Sporer, Eric Armengaud, and Christian Kreiner</i>
13:00 – 14:00	Lunch Break
14:00 – 15:45	Session 12: Programming and compiling (Session chair: Coen van Gulijk)
<u>14:00-14:25</u>	Source-Code-to-Object-Code Traceability Analysis for Avionics Software: Don't Trust Your Compiler <i>J�rg Brauer, Markus Dahlweid, Tobias Pankrath, and Jan Peleska</i>
<u>14:25-14:50</u>	Automated Generation of Buffer Overflow Quick Fixes using Symbolic Execution and SMT <i>Paul Muntean, Vasantha Kommanapalli, Andreas Ibing, and Claudia Eckert</i>
<u>14:50-15:15</u>	Software-based Error Detection Technique for Monitoring the Program Execution of RTUs in SCADA <i>Navid Rajabpour, Yasser Sedaghat</i>
<u>15:15-15:45</u>	Real-World Types and Their Application <i>Jian Xiang, John Knight and Kevin Sullivan</i>
15:45	CLOSING CEREMONY