

CHANGES TO THE TECHNICAL AND SOCIAL PROGRAM

The organisers reserve the right to adjust or change the Technical Program and/or the Social Program if necessary.

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CONFERENCE PROGRAM

Monday, September 19, 2011

8:00 a.m.–9:00 a.m.

Registration

9:00 a.m. –9:30 a.m.

Opening Session

9:30 a.m.–10:30 a.m.

Keynote Address 1

Invited Speaker: Paulo Verissimo

Faculty of Sciences, University of Lisboa, ,

10:30 a.m.–11:30 a.m.

Session 1: RAM Evaluation 1, Chair: Sandro Bologna

"The Effect of Correlated Failure Rates on the Reliability of Continuous Time 1-out-of-2 Software"

Peter Popov, Gabriele Manno

"Model-driven availability evaluation of railway control systems".

Simona Bernardi, Francesco Flammini, Stefano Marrone, José Merseguer, Camilla Papa, and Valeria V

11:30 a.m.–11:45 a.m.

Refreshments and Networking With Exhibitors

11:45 a.m.–1:15 p.m.

Session 2: Complex Systems Dependability 1, Chair: Peter Popov

"Vertical Safety Interfaces - Improving the Efficiency of Modular Certification".

Bastian Zimmer, Susanne Bürklen, Jens Höfflinger, and Mario Trapp

"DALculus – Theory and Tool for Development Assurance Level Allocation".

Pierre Bieber, Rémi Delmas, Christel Seguin

"Towards cross-domains model-based safety process, methods and tools for critical embedded

Jean-Paul Blanquart, Eric Armengaud, Philippe Baufreton, Quentin Bourrouilh, Gehrard Griessnig, Mart

1:15 p.m.–2:30 p.m.

Lunch

and Networking With Exhibitors

2:30 p.m.–3:30 p.m.

Session 3: Formal Verification 1, Chair: Francesca Saglietti

"From Probabilistic Counterexamples via Causality to Fault Trees".

Matthias Kuntz, Florian Leitner-Fischer, and Stefan Leue

"Rigorous evidence of freedom from concurrency faults in industrial control software".

Richard Bonichon, Géraud Canet, Loïc Correnson, Eric Goubault, Emmanuel Haucourt, Michel Hirschow

3:30 p.m.–3:50 p.m.

Refreshments and Networking With Exhibitors

3:50 p.m.–4:50 p.m.

Session 4: Risk and Hazard Analysis, Chair: Stefano Russo

"Evolutionary Risk Analysis: Expert Judgment".

Massimo Felici, Valentino Meduri, Bjørnar Solhaug, Alessandra Tedeschi

"Computer-Aided PHA, FTA and FMEA for Automotive Embedded Systems".

Roland Mader, Eric Armengaud, Andrea Leitner, Christian Kreiner, Quentin Bourrouilh, Gerhard Griebner

4:50 p.m.–5:50 p.m.

Session 5: Cybersecurity, Chair: Wolfgang Ehrenberger

"A statistical anomaly-based algorithm for on-line fault detection in complex software critical systems".

Antonio Bovenzi, Francesco Brancati, Stefano Russo and Andrea Bondavalli

"Security Analysis of Smart Grid Data Collection Technologies".

Luigi Coppolino, Salvatore D'Antonio, Ivano Alessandro Elia, and Luigi Romano

6:00 p.m. – 8:00 p.m.

City Sightseeing

8:00 p.m.

Welcome Reception

Tuesday, September 20, 2011

8:00 a.m.–9:15 a.m.

Registration

9:15 a.m. – 10:15 a.m.

Keynote Address 2

Invited Speaker: Gerard J. Holzmann

Computer Science Department, Pasadena, California Institute of Technology (Caltech), USA and NASA Jet Propulsion Laboratory

10:15 a.m.	–	11:15 a.m.
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Session 6: RAM Evaluation 2, Chair: Salvatore D'Antonio

"Modeling Aircrafts Operational Reliability".

Kossi Tiassou, Karama Kanoun, Mohamed Kaâniche, Christel Seguin, Chris Papadopoulos

"An integrated approach for availability and QoS evaluation in railway systems".

Antonino Mazzeo, Nicola Mazzocca, Roberto Nardone, Luca D'Acierno, Bruno Montella, Vincenzo Punzo

11:15 a.m.	–	11:45 a.m.
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Refreshments and Networking With Exhibitors

11:45 a.m.	–	1:15 p.m.
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Session 7: Case Studies, Chair: Erwin Schoitsch

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"Using a Software Safety Argument Pattern Catalogue: Two Case Studies".

Richard Hawkins, Kester Clegg, Rob Alexander, and Tim Kelly

"Integration of a system for Critical Infrastructure Protection with the OSSIM SIEM platform: a da

Luigi Coppolino, Salvatore D'Antonio, Valerio Formicola, and Luigi Romano

"A Case Study on State-Based Robustness Testing of an Operating System for the Avionic Doma

Domenico Cotroneo, Domenico Di Leo, Roberto Natella, Roberto Pietrantuono

1:15 p.m.–2:30 p.m.

Lunch

and Networking With Exhibitors

2:30 p.m.–3:30 p.m.

Session 8: Formal Verification 2, Alessandro Fantechi

"Formal Methods for the Certification of Autonomous Unmanned Aircraft Systems".

Matt Webster, Michael Fisher, Neil Cameron, and Mike Jump

"Verifying functional behaviors of automotive products in EAST-ADL2 using UPPAAL-PORT".

Eun-Young Kang, Pierre-Yves Schobbens, and Paul Pettersson

3:30 p.m.–3:50 p.m.

Refreshments and Networking With Exhibitors

3:50 p.m.– 4:30 p.m. EWICS TC7 PRESENTATIONS

4:30 p.m.– 5:30 p.m.

Poster Session

"Establishing Confidence in the Usage of Software Tools in Context of ISO 26262".	
<i>Joachim Hillebrand, Peter Reichenpfader, Irenka Mandic, Hannes Siegl, and Christian Peer</i>	
"Fault-Based Generation of Test Cases from UML-Models – Approach and Experiences".	
<i>Wolfgang Herzner, Rupert Schlick, Elisabeth Jöbstl</i>	
"ISO/IEC 15504-10: Motivations for Another Safety Standard".	
<i>Giuseppe Lami, Fabrizio Fabbrini, Mario Fusani</i>	
"Automatic Synthesis of SRN Models from System Operation Templates for Availability Analysis	
<i>Kumiko Tadano, Jiangwen Xiang, Masahiro Kawato and Yoshiharu Maeno</i>	
"A Collaborative Event Processing System for Protection of Critical Infrastructures From Cyber A	
<i>Leonardo Aniello, Giuseppe A. Di Luna, Giorgia Lodi, and Roberto Baldoni</i>	
"	A Fault-Tolerant, Dynamically Sc
<i>Hananeh Aliee, Hamid R. Zarandi</i>	
"FloGuard: Cost-aware Systemwide Intrusion Defense via Online Forensics and On-demand IDS	
<i>Saman A. Zonouz, Kaustubh R. Joshi, and William H. Sanders</i>	
"Reducing Complexity of Data Flow Testing in the Verification of a IEC-62304 Flexible Workflow S	
<i>Federico Cruciani and Enrico Vicario</i>	
"Improvement of Processes and Methods in Testing Activities for Safety-Critical Embedded Syst	
<i>Giuseppe Bonifacio, Pietro Marmo, Antonio Orazio, Ida Petrone, Luigi Velardi, Alessio Venticinque</i>	

6:00 p.m. –8:00 p.m.

Guided Tour

8:00 p.m.

Conference Dinner

Wednesday, September 21, 2011

8:00 a.m.–9:00 a.m.

Registration

9:00 a.m.–10:00 a.m.

Keynote Address 3

Invited Speaker: Andrea Bondavalli

Dipartimento di Sistemi ed Informatica, University of Firenze, Firenze, Italy and
ResilTech Srl, Cascina (PI), Italy

10:00 a.m.–11:30 a.m.

Session 9: Formal Verification 3, Chair: Massimo Felici

"On the adoption of Model Checking in safety-related software industry".

Alessandro Fantechi and Stefania Gnesi

"Equivalence Checking between Function Block Diagrams and C Programs using HW-CBMC".

Dong-Ah Lee and Junbeom Yoo

"A framework for simulation and symbolic state space analysis of non-Markovian models".

Laura Carnevali, Lorenzo Ridi, Enrico Vicario

11:30 a.m. – 12:00 a.m.

Refreshments and Networking With Exhibitors

12:00 a.m. – 1:00 p.m.

Session 10: Optimization Methods, Chair: Concetta Pragliola

"Model-Based Multi-Objective Safety Optimization".

Matthias Gdemann and Frank Ortmeier

"Tradeoff exploration between reliability, power consumption, and execution time".

Ismail Assayad, Alain Girault, and Hamoudi Kalla

1:00 p.m.–2:30 p.m.

Lunch

and Networking With Exhibitors

2:30 p.m.–3:30 p.m.

Session 11: Complex Systems Dependability 2, Chair: Frank Ortmeier

"Criticality-Driven Component Integration in Complex Software Systems".

Antonio Pecchia, Roberto Pietrantuono, and Stefano Russo

"On the use of semantic technologies to model and control Security, Privacy and Dependability i

Andrea Fiaschetti, Francesco Lavorato, Vincenzo Suraci, Andi Palo, Andrea Taglialatela, Andrea Morga

3:30 p.m.–3:50 p.m.

Coffee and Wrap up

3:50 p.m.

Best Presentation Awards Session 2012 and Closing Session