

Table of Contents

Invited Keynote Talks

Requirements-Driven Log Analysis	1
<i>Klaus Havelund</i>	
Active Learning of Extended Finite State Machines	5
<i>Frits Vaandrager</i>	

Testing in Practice

Efficient and Trustworthy Tool Qualification for Model-Based Testing Tools	8
<i>Jörg Brauer, Jan Peleska, and Uwe Schulze</i>	
Managing Execution Environment Variability during Software Testing: An Industrial Experience	24
<i>Aymeric Hervieu, Benoit Baudry, and Arnaud Gottlieb</i>	
A Technique for Agile and Automatic Interaction Testing for Product Lines	39
<i>Martin Fagereng Johansen, Øystein Haugen, Franck Fleurey, Erik Carlson, Jan Endresen, and Tormod Wien</i>	
CaPTIF: Comprehensive Performance TestIng Framework.....	55
<i>Daniel A. Mayer, Orie Steele, Susanne Wetzels, and Ulrike Meyer</i>	

Test Frameworks for Distributed Systems

Towards a TTCN-3 Test System for Runtime Testing of Adaptable and Distributed Systems	71
<i>Mariam Lahami, Fairouz Fakhfakh, Moez Krichen, and Mohamed Jmaiel</i>	
Passive Interoperability Testing for Request-Response Protocols: Method, Tool and Application on CoAP Protocol	87
<i>Nanxing Chen and César Viho</i>	
Using Knapsack Problem Model to Design a Resource Aware Test Architecture for Adaptable and Distributed Systems.....	103
<i>Mariam Lahami, Moez Krichen, Mariam Bouchakwa, and Mohamed Jmaiel</i>	

Testing of Embedded Systems

Off-Line Test Case Generation for Timed Symbolic Model-Based Conformance Testing	119
<i>Bouthaina Bannour, Jose Pablo Escobedo, Christophe Gaston, and Pascale Le Gall</i>	
Querying Parametric Temporal Logic Properties on Embedded Systems	136
<i>Hengyi Yang, Bardh Hoxha, and Georgios Fainekos</i>	
State Estimation and Property-Guided Exploration for Hybrid Systems Testing	152
<i>Thao Dang and Noa Shalev</i>	

Test Optimization

Extending Coverage Criteria by Evaluating Their Robustness to Code Structure Changes	168
<i>Angelo Gargantini, Marco Guarnieri, and Eros Magri</i>	
Using Behaviour Inference to Optimise Regression Test Sets	184
<i>Ramsay Taylor, Mathew Hall, Kirill Bogdanov, and John Derrick</i>	

New Testing Methods

Machine Learning Approach in Mutation Testing	200
<i>Joanna Strug and Barbara Strug</i>	
Lightweight Automatic Error Detection by Monitoring Collar Variables	215
<i>João Santos and Rui Abreu</i>	
Protocol Testing and Performance Evaluation for MANETs with Non-uniform Node Density Distribution	231
<i>Akihito Hiromori, Takaaki Umedu, Hirozumi Yamaguchi, and Teruo Higashino</i>	
Parameterized GUI Tests	247
<i>Stephan Arlt, Pedro Borromeo, Martin Schäfer, and Andreas Podelski</i>	
Author Index	263