### Contents

**Testing Methodologies**

Conformance Testing with Respect to Partial-Order Specifications  
*Gregor von Bochmann*  
3

Back-to-Back Testing of Self-organization Mechanisms  
*Benedikt Eberhardinger, Axel Habermaier, Hella Seebach, and Wolfgang Reif*  
18

Test Generation by Constraint Solving and FSM Mutant Killing  
*Alexandre Petrenko, Omer Nguena Timo, and S. Ramesh*  
36

Risk-Based Interoperability Testing Using Reinforcement Learning  
*André Reichstaller, Benedikt Eberhardinger, Alexander Knapp, Wolfgang Reif, and Marcel Gehlen*  
52

A Combinatorial Approach to Analyzing Cross-Site Scripting (XSS) Vulnerabilities in Web Application Security Testing  
*Dimitris E. Simos, Kristoffer Kleine, Laleh Shikh Gholamhossein Ghandehari, Bernhard Garn, and Yu Lei*  
70

**Heuristics and Non-determinism in Testing**

Controllability Through Nondeterminism in Distributed Testing  
*Robert M. Hierons, Mercedes G. Merayo, and Manuel Núñez*  
89

Parallelizing Heuristics for Generating Synchronizing Sequences  
*Sertaç Karahoda, Osman Tufan Erenay, Kamer Kaya, Uraz Cengiz Türker, and Hüsnü Yenigün*  
106

Resolving the Equivalent Mutant Problem in the Presence of Non-determinism and Coincidental Correctness  
*Krishna Patel and Robert M. Hierons*  
123

On-the-Fly Construction of Adaptive Checking Sequences for Testing Deterministic Implementations of Nondeterministic Specifications  
*Nina Yevtushenko, Khaled El-Fakih, and Anton Ermakov*  
139
Practical Applications

Mutation-Based Test Generation for PLC Embedded Software Using Model Checking .................................................. 155
  Eduard P. Enoiu, Daniel Sundmark, Adnan Ćaušević, Robert Feldt, and Paul Pettersson

STIPI: Using Search to Prioritize Test Cases Based on Multi-objectives Derived from Industrial Practice .............................. 172
  Dipesh Pradhan, Shuai Wang, Shaukat Ali, Tao Yue, and Marius Liaaen

From Simulation Data to Test Cases for Fully Automated Driving and ADAS .............................................................. 191
  Christoph Sippl, Florian Bock, David Wittmann, Harald Altinger, and Reinhard German

Short Contributions

Searching Critical Values for Floating-Point Programs ....................... 209
  Hélène Collavizza, Claude Michel, and Michel Rueher

UTTOS: A Tool for Testing UEFI Code in OS Environment .................. 218
  Eder C.M. Gomes, Paulo R.P. Amora, Elvis M. Teixeira, Antonio G.S. Lima, Felipe T. Brito, Juliano F.C. Ciocari, and Javam C. Machado

Towards Model Construction Based on Test Cases and GUI Extraction .......... 225
  Antti Jääskeläinen

Set-Based Algorithms for Combinatorial Test Set Generation ................. 231
  Ludwig Kampel and Dimitris E. Simos

Automated Localisation Testing in Industry with Test* ..................... 241
  Mireilla Martinez, Anna I. Esparcia, Urko Rueda, Tanja E.J. Vos, and Carlos Ortega

Distribution Visualization for User Behavior Analysis on LTE Network ........ 249
  Masaki Suzuki, Quentin Plessis, Takeshi Kitahara, and Masato Tsuru

Author Index ................................................................. 257
Testing Software and Systems
28th IFIP WG 6.1 International Conference, ICTSS 2016,
Graz, Austria, October 17-19, 2016, Proceedings
Wotawa, F.; Nica, M.; Kushik, N. (Eds.)
2016, XVIII, 257 p. 62 illus., Softcover
ISBN: 978-3-319-47442-7