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Testing of Software and Communicating Systems

20th IFIP TC 6/WG 6.1 International Conference, TestCom 2008
8th International Workshop, FATES 2008
Tokyo, Japan, June 10-13, 2008
Proceedings

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Preface

This volume contains the proceedings of TESTCOM/FATES 2008, a joint conference of two communities: TESTCOM was the 20th edition of the IFIP TC6/WG6.1 International Conference on Testing of Communicating Systems and FATES was the 8th edition of the International Workshop on Formal Approaches to Testing of Software. TESTCOM/FATES 2008 was held at the Campus Innovation Center in Tokyo, Japan during June 10–13, 2008.

Testing is one of the most important techniques for validating and checking the correctness of communication and software systems. Testing, however, is also a laborious and very cost-intensive task during the development process of such systems. TESTCOM is a series of international conferences addressing the problems of testing communicating systems, including communication protocols, services, distributed platforms, and middleware. FATES is a series of international workshops discussing the challenges of using rigorous and formal methods for testing software systems in general. TESTCOM/FATES aims at being a forum for researchers, developers, and testers to review, discuss, and learn about new approaches, concepts, theories, methodologies, tools, and experiences in the field of testing of communicating systems and software.

TESTCOM has a long history. Previously it was called the International Workshop on Protocol Test Systems (IWPTS) and changed its name to the International Workshop on Testing of Communicating System (IWTCS) later. The previous conferences were held in Vancouver, Canada (1988); Berlin, Germany (1989); McLean, USA (1990); Leidschendam, The Netherlands (1991); Montréal, Canada (1992); Pau, France (1993); Tokyo, Japan (1994); Evry, France (1995); Darmstadt, Germany (1996); Cheju Island, Korea (1997); Tomsk, Russia (1998); Budapest, Hungary (1999); Ottawa, Canada (2000); Berlin, Germany (2001); Sophia Antipolis, France (2002); Oxford, UK (2004); Montréal, Canada (2005); New York, USA (2006) and Tallinn, Estonia (2007).

FATES also has its history. The previous workshops were held in Aalborg, Denmark (2001); Brno, Czech Republic (2002); Montréal, Canada (2003); Linz, Austria (2004); Edinburgh, UK (2005); Seattle, USA (2006), and Tallinn, Estonia (2007). TESTCOM and FATES became a joint conference in 2007.

In addition, FORTE 2008, the 28th IFIP International Conference on Formal Methods for Networked and Distributed Systems, was also held at the same place and time, as it did last year. Thus, the co-location of TESTCOM/FATES and FORTE fostered the collaboration between different communities. The common spirit of both conferences was underpinned by joint opening and closing sessions, invited talks, as well as joint social events.

TESTCOM/FATES received a reasonable number of submissions this year. Initially 58 abstracts were submitted, from which 42 research full papers were elaborated. The Program Committee finally selected 18 papers for presentation at the

conference. Together with the invited presentations by Yutaka Yasuda from KDDI Corporation, Japan, and Paul Baker from Motorola, UK, they formed the contents of the proceedings. In addition, the conference contained another invited presentation on behalf of FORTE by Wolfram Schulte from Microsoft Research, USA. Moreover, presentations on industrial best practices and work-in-progress presentations rounded off the conference. A tutorial day preceded the conference.

It took tremendous efforts to organize this event. We would like to thank all the contributors for the success of TESTCOM/FATES 2008. In particular we are grateful to the Steering Committee of IFIP TESTCOM, the Program Committee, and all reviewers for their support in selecting papers of high quality. Without these contributions, these proceedings would not exist. We thank the International Communications Foundation, Support Center for Advanced Telecommunications Technology Research, Foundation, Microsoft Research, and KDDI Corporation for their financial support and Springer for publishing the proceedings. Last but not least, we would also like to express our thanks to the members of the Local Arrangements team from KDDI R&D Laboratories Inc., The University of Electro-Communications, Osaka University, and the Nara Institute of Science and Technology for their continuous support of this conference.

March 2008

Kenji Suzuki
Teruo Higashino
Andreas Ulrich
Toru Hasegawa

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Table of Contents

Invited Talks

All-IP Based Ultra 3G Network/Service Development in a Competitive Market	1
<i>Yutaka Yasuda</i>	
Models and Testing – A Recipe for Improved Effectiveness?	5
<i>Paul Baker</i>	

General Software Testing

Runtime Verification of C Programs	7
<i>Klaus Havelund</i>	
Test Construction for Mathematical Functions	23
<i>Victor Kuliamin</i>	
Model-Based Testing Service on the Web.....	38
<i>Antti Jääskeläinen, Mika Katara, Antti Kervinen, Henri Heiskanen, Mika Maunumaa, and Tuula Pääkkönen</i>	

Testing Continuous and Real-Time Systems

Using Disparity to Enhance Test Generation for Hybrid Systems	54
<i>Thao Dang and Tarik Nahhal</i>	
Modeling Property Based Stream Templates with TTCN-3	70
<i>Juergen Grossmann, Ina Schieferdecker, and Hans-Werner Wiesbrock</i>	
<i>THOTL</i> : A Timed Extension of <i>HOTL</i>	86
<i>Mercedes G. Merayo, Manuel Núñez, and Ismael Rodríguez</i>	

Network Testing

Model-Based Firewall Conformance Testing	103
<i>Achim D. Brucker, Lukas Brügger, and Burkhart Wolff</i>	
VCSTC: Virtual Cyber Security Testing Capability – An Application Oriented Paradigm for Network Infrastructure Protection	119
<i>Guoqiang Shu, Dongluo Chen, Zhijun Liu, Na Li, Lifeng Sang, and David Lee</i>	

Performance Test Design Process and Its Implementation Patterns for Multi-services Systems	135
<i>George Din, Ina Schieferdecker, and Razvan Petre</i>	

Test Generation

Generating Checking Sequences for Partial Reduced Finite State Machines	153
<i>Adenilso Simão and Alexandre Petrenko</i>	
Testing Systems Specified as Partial Order Input/Output Automata	169
<i>Gregor v. Bochmann, Stefan Haar, Claude Jard, and Guy-Vincent Jourdan</i>	
Test Purpose Concretization through Symbolic Action Refinement	184
<i>Alain Faivre, Christophe Gaston, Pascale Le Gall, and Assia Touil</i>	

Concurrent System Testing

Implementation Relations for the Distributed Test Architecture	200
<i>Robert M. Hierons, Mercedes G. Merayo, and Manuel Núñez</i>	
Modular System Verification by Inference, Testing and Reachability Analysis	216
<i>Roland Groz, Keqin Li, Alexandre Petrenko, and Muzammil Shahbaz</i>	
Test Plan Generation for Concurrent Real-Time Systems Based on Zone Coverage Analysis	234
<i>Farn Wang and Geng-Dian Huang</i>	

Applications of Testing

Applying Model-Based Testing to HTML Rendering Engines – A Case Study	250
<i>Jens R. Calamé and Jaco van de Pol</i>	
Model-Based Generation of Testbeds for Web Services	266
<i>Antonia Bertolino, Guglielmo De Angelis, Lars Frantzen, and Andrea Polini</i>	
Real-Time Testing with TTCN-3	283
<i>Diana Alina Serbanescu, Victoria Molovata, George Din, Ina Schieferdecker, and Ilja Radusch</i>	

Author Index	303
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