



# QSIC 2010

The 10th International Conference on  
**Quality Software**

## Technical Program

July 14–15, 2010  
Wulingyuan International Resort  
Zhangjiajie, China



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## Keynote Speakers

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### **Professor Paola Inverardi**

Department of Computer Science  
 University of L'Aquila  
 Italy

Paola Inverardi is Professor in Computer Science at University of L'Aquila, where she leads the Software Engineering and Architecture Research Group. From November 2008, she is Dean of the Faculty of Science at University of L'Aquila. She is member of the Senate Board of University of L'Aquila. Paola Inverardi's main research area is in the application of formal methods to software development in order to improve software quality. Her research interest is on the correct development and management of large distributed software systems, focusing on configuration and dynamic re-configuration issues. In the last decade her research interests mainly concentrated in the field of software architectures. She has actively worked on the verification and analysis of software architecture properties, both behavioural and quantitative for component-based, distributed, and mobile systems. Recently, her research focuses on the problem of dynamically adapt software applications to contexts that can exhibit different degrees of resources availability. She has (co-)authored over one hundred publications in international journals and international conference and workshop proceedings (<http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/i/Inverardi:Paola.html>). Paola Inverardi is member (2001–) and chair (2003–) of the ESEC (European Software Engineering Conference) Steering Committee. She is member of the ICSE Steering Committee. She is member of the ACM Europe Council (<http://europe.acm.org/>). From July 2005 to July 2009, she has been member at large of the ACM SIFSOFT (ACM Special Interest Group on Software Engineering) Executive Committee (<http://www.sigsoft.org/about/execComm.htm>). She has been associate editor for ACM TOSEM. She has been co-chair of the ICSE 2009 conference. She is currently associate editor for IEE TSE.

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### **Professor Hans van Vliet**

Department of Information Management and Software Engineering  
 Vrije Universiteit  
 The Netherlands

Hans van Vliet is Professor in Software Engineering at the VU University Amsterdam, The Netherlands, since 1986. He got his PhD from the University of Amsterdam. His research interests include software architecture, knowledge management in software development, global software development, and empirical software engineering. Before joining the VU University, he worked as a researcher at the Centrum voor Wiskunde en Informatica (CWI, Amsterdam). He spent a year as a visiting researcher at the IBM Almaden Research Center in San Jose, California. He co-authored over 140 refereed articles. He is the author of "Software Engineering: Principles and Practice", published by Wiley (3rd Edition, 2008). He is a member of IFIP Working Group 2.10 on software architecture, and the Editor in Chief of the Journal of Systems and Software.

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Wing Kwong Chan City University of Hong Kong, Hong Kong

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### Local Organizer

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IEEE Reliability Society

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Arizona State University, USA

## Program Committees

### Program Committee of QSIC 2010 Conference

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Hasan Ural	University of Ottawa, Canada
Hans van Vliet	Vrije Universiteit, The Netherlands
Miroslav Velev	Aries Design Automation, USA
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Jun Wei	Chinese Academy of Sciences, China
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Xiangyu Zhang	Purdue University, USA
Jianjun Zhao	Shanghai Jiao Tong University, China
Thomas Zimmermann	Microsoft Research, USA
Hong Zhu	Oxford Brookes University, UK
Mohammad Zulkernine	Queen's University, Canada

**Program Committee of the First International Workshop on Program Debugging in China (IWPDC 2010)**

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Zhenyu Zhang	Institute of Software, Chinese Academy of Sciences, China

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**Program Committee of the International Workshop on Quality of Service-Based Systems (QSBS 2010)**

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Members

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Jerry Gao	San Jose State University, US
Yunzhan Gong	Beijing University of Posts and Telecommunications, China
Songlin Hu	Institute of Computing Technology, Chinese Academy of Sciences, China
Xiaocong Zhou	Sun Yat-Sen University, China
Hong Zhu	Oxford Brookes University, UK

**Program Committee of the First International Workshop on Embedded System Software Development and Quality Assurance (WESQA 2010)**

Chairs

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Pao-Ann Hsiung	National Chung Cheng University, Taiwan
Chih-Hung Chang	Hsiuping Institute of Technology, Taiwan

Members

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Chorng-Shiuh Koong	National Taichung University, Taiwan
Ami Marowka	Shenkar College of Engr.& design, Israeln
Trong-Yen Lee	National Taipei University of Technology, Taiwan
Marco Platzner	University of Paderborn, Germany
Marco Domenico Santambrogio	MIT, USA
Chihhsiong Shih	Tunghai University, Taiwan
Chao-Tung Yang	Tunghai University, Taiwan
Oliver Sinnen	University of Auckland, New Zealand



## QSIC 2010 Program Summary

<b>13 July, 2010</b>			
14:00-22:00	Registration		
18:00-20:00	Welcome Reception		
<b>14 July, 2010</b>			
8:00-9:00	Registration		
9:00-9:30	Opening Session		
9:30-10:30	Keynote 1: Paola Inverardi, Assessing dependability for mobile and ubiquitous systems: Is there a role for Software Architectures?		
10:30-11:00	Coffee break		
11:00-13:00	Session 1: Regression Testing	Session 2: Software Design	
13:10-14:00	Lunch		
14:00-16:00	Session 3: Fault Localization	Session 4: Quality	Workshop: WESQA
16:00-16:30	Coffee Break		
16:30-18:00	Emerging Track Session 1	Emerging Track Session 2	Workshop: IWPDC
18:00-18:30	Session 5: Journal of Systems and Software		
18:30-21:00	Conference Banquet		
<b>15 July, 2010</b>			
9:00-10:00	Keynote 2: Hans van Vliet, Knowledge Sharing in Software Development		
10:00-10:30	Coffee Break		
10:30-12:30	Session 6: Specification Based Testing	Session 7: Analysis	Workshop: QSBS
13:00-14:00	Lunch		
14:00-15:30	Session 8: Test Case Generation	Session 9: Verification	Workshop: QSBS
15:30-16:00	Coffee Break		
16:00-17:20	Session 10: Profile and Coverage	Session 11: Service Composition	Workshop: QSBS



## QSIC 2010 Program in Detail<sup>1</sup>

### 13 July 2010 (Tuesday) Afternoon

<i>Time</i>	<i>Place</i>	<i>Content</i>
14:00-22:00		Registration

### 14 July 2010 (Wednesday) Morning

<i>Time</i>	<i>Place</i>	<i>Content</i>
8:00-9:00		Registration
9:00-9:30	Taihe International Banquet Hall	<p style="text-align: center;"><b>Opening Session</b></p> <p><b>Chair: Prof. Ji Wang</b>, National Laboratory for Parallel and Distributed Processing, China</p> <hr/> <p>Welcome Remarks from the General Chair</p> <p>Overview of the Program from the Lead Program Chair</p>
9:30-10:30	Taihe International Banquet Hall	<p style="text-align: center;"><b>Keynote 1</b></p> <p><b>Chair: Prof. Ji Wang</b>, National Laboratory for Parallel and Distributed Processing, China</p> <p><b>Assessing Dependability for Mobile and Ubiquitous Systems: Is there a Role for Software Architectures?</b></p> <p><b>Paola Inverardi</b>, Department of Computer Science University of L'Aquila, Italy</p>
10:30-11:00		Coffee break
11:00-13:00	Meeting Room 1	<p style="text-align: center;"><b>Session 1: Regression Testing</b></p> <p><b>Chair: Prof. W. Eric Wong</b>, University of Texas at Dallas, USA</p> <hr/> <p><b>Regression Testing Process Improvement for Specification Evolution of Real-World Protocol Software</b></p> <p>Bo Jiang and T. H. Tse (The University of Hong Kong, Hong Kong), Wolfgang Grieskamp, Nico Kicillof, Yiming Cao, and Xiang Li (Microsoft Corp., Redmond, WA, USA and Beijing, China)</p> <hr/> <p><b>An Improved Regression Test Selection Technique by Clustering Execution Profiles</b></p> <p>Chen Zhang, Zhenyu Chen, Zhihong Zhao, Shali Yan, Jinyu Zhang, and Baowen Xu (Nanjing University, China)</p>

<sup>1</sup> The time limits: 30 minutes for each regular paper (20 minutes for oral presentation and 10 minutes for Q&A), 20 minutes for each short paper (15 minutes for oral presentation and 5 minutes for Q&A), 15 minutes for each emerging track paper (10 minutes for oral presentation and 5 minutes for Q&A).

		<p><b>Mining Performance Regression Testing Repositories for Automated Performance Analysis</b> King Chun Foo, Zhen Ming Jiang, Bram Adams, and Ahmed E. Hassan, Ying Zou (Queen's University, Canada), and Parminder Flora (Research In Motion, Canada)</p> <p><b>A Simulation Study on Some Search Algorithms for Regression Test Case Prioritization</b> Sihan Li, Naiwen Bian, Zhenyu Chen, Dongjiang You, and Yuchen He (Nanjing University, China)</p>
	<p><i>Meeting Room 2</i></p>	<p style="text-align: center;"><b>Session 2: Software Design</b> <b>Chair: Prof. Hong Zhu</b>, Oxford Brookes University, UK</p> <p><b>A Business Process Driven Approach for Generating Software Architecture</b> Xulin Zhao and Ying Zou (Queen's University, Canada)</p> <p><b>Factors for Effective Use of Deployed Design Patterns</b> T.H. Ng and Y.T. Yu (City University of Hong Kong), and S.C. Cheung (The Hong Kong University of Science and Technology, Hong Kong)</p> <p><b>Implementing Self-Adaptive Software Architecture by Reflective Component Model and Dynamic AOP: A Case Study</b> Yuankai Wu, Yijian Wu, Xin Peng, and Wenyun Zhao (Fudan University, China)</p> <p><b>Towards An Empirical Reuse Approach for the Software Evolution: A Case Study</b> Ziyou Wang, Minghui Zhou, and Hong Mei (Peking University, China)</p> <p><b>Generating Provably Correct Algorithmic Programs from Formal Specifications</b> Haihe Shi, and Jy Xue (Chinese Academy of Sciences, China)</p>
<p><b>13:10-14:00</b></p>		<p><b>Lunch</b></p>



**14 July 2010 (Wednesday) Afternoon**

<i>Time</i>	<i>Place</i>	<i>Content</i>
<b>14:00-16:00</b>	<b>Meeting Room 1</b>	<b>Session 3: Fault Localization</b> <i>Chair: Dr. Zhenyu Chen</i> , Nanjing University, China
		<b>A Grouping-Based Strategy to Improve the Effectiveness of Fault Localization Techniques</b> Vidroha Debroy, W. Eric Wong, and Xiaofeng Xu (University of Texas at Dallas, USA), and Byoungju Choi (Ewha Womans University, South Korea)
		<b>Fault Localization Based on Dynamic Slicing and Hitting-set Computation</b> Franz Wotawa (Technische Universität Graz, Austria)
		<b>Increasing System Availability with Local Recovery based on Fault Localization</b> Hasan Sozer (University of Twente, The Netherlands), Rui Abreu (University of Porto, Portugal), Mehmet Aksit (University of Twente, The Netherlands), and Arjan J.C. van Gemund (Delft University of Technology, The Netherlands)
		<b>On the Impact of Design Flaws on Software Defects</b> Marco D'Ambros, Alberto Bacchelli, and Michele Lanza (Faculty of Informatics - University of Lugano, Switzerland)
	<b>Meeting Room 2</b>	<b>Session 4: Quality</b> <i>Chair: Dr. Y. T. Yu</i> , City University of Hong Kong, Hong Kong
		<b>Software Quality Prediction Models Compared</b> Rüdiger Lincke, Tobias Gutzmann, and Welf Löwe (Linnaeus University, Sweden)
		<b>Prioritizing Tests for Software Fault Localization</b> Alberto Gonzalez-Sanchez, Eric Piel, Hans-Gerhard Gross, and Arjan J.C. van Gemund (Delft University of Technology, The Netherlands)
		<b>A Methodology for Continuous Quality Assessment of Software Artefacts</b> Moisés Rodríguez (Alarcos Quality Center S.L., Spain), Marcela Genero, Damiano Torre, Belen Blasco, and Mario Piattini (University of Castilla-La, Spain)
		<b>Data Unpredictability in Software Defect-Fixing Effort Prediction</b> Zhimin He, Fengdi Shu, Ye Yang, Wen Zhang, and Qing Wang (The Chinese Academy of Sciences, China)
	<b>Meeting Room 3</b>	<b>The First Workshop on Embedded System Software Development and Quality Assurance (WESQA 2010)</b> <i>Chair: Prof. William Chu</i> , Tunghai University, Taiwan
		<b>Leveraging Performance and Power Savings for Embedded Systems using Multiple Target Deadlines</b> Edward Y. Y. Kan (The University of Hong Kong, Hong Kong), W. K. Chan (City University of Hong Kong, Hong Kong), T. H. Tse (The University of Hong Kong, Hong Kong)
		<b>Supporting Tool for Embedded Software Testing</b> Chorng-Shiuh Koong, Hung-Jui Lai (National Taichung University, Taiwan),

		<p>Chih-Hung Chang (Hsiuping Institute of Technology, Taiwan), William C. Chu (Tunghai University, Taiwan), Nien-Lin Hsueh (Feng Chia University, Taiwan), Pao-Ann Hsiung (National Chung Cheng University, Taiwan), Chihhsiong Shih, and Chao-Tung Yang (Tunghai University, Taiwan)</p> <p><b>From Applications, to Models and to Embedded System Code: A Modeling Approach in Action</b></p> <p>Hsin-Yu Tung (Tunghai University, Taiwan), Chih-Hung Chang (Hsiuping Institute of Technology, Taiwan), William C. Chu (Tunghai University, Taiwan), Hongji Yang (De Montfort University, England), and Chih-Wei Lu (Hsiuping Institute of Technology, Taiwan)</p> <p><b>Building Multi-Kernel Embedded System on PAC Multi-core Platform</b></p> <p>Jing Chen, Chung-Ping Young, Da-Wei Chang, Guan-Ying Huang, Chung-Yuan Ke, Shih-Tun Yen, Tsang-Shuo Kuo (National Cheng Kung University, Taiwan)</p> <p><b>Modeling and Analysis of the Behavior of uCOS Kernel based on CSP</b></p> <p>ZhenHong Xu (East China Normal University, China)</p> <p><b>Adaptive Interaction Fault Location Based on Combinatorial Testing</b></p> <p>Ziyuan Wang, Baowen Xu, Lin Chen (Nanjing University, China)</p>
<p><b>16:00-16:30</b></p>		<p><i>Coffee Break</i></p>
<p><b>16:30-18:00</b></p>	<p><i>Meeting Room 1</i></p>	<p><b>Emerging Track Session 1</b></p> <p><i>Chair: Prof. Atsushi Ohnishi</i>, Ritsumeikan University, Japan</p> <p><b>An Integrated Support for Attributed Goal-Oriented Requirements Analysis Method and Its Implementation</b></p> <p>Motoshi Saeki and Shinpei Hayashi (Tokyo Institute of Technology, Japan), and Haruhiko Kaiya (Shinshu University, Japan)</p> <p><b>An MDE Based Approach for Generating Software Architecture Models from Formal Specifications</b></p> <p>Yi Zhu, Zhiqiu Huang, Zining Cao, Hang Zhou, and Min Yuan (Nanjing University of Aeronautics and Astronautics, China)</p> <p><b>Mapping UML Activity Diagrams to Analyzable Petri Net Models</b></p> <p>Nianhua Yang, Huiqun Yu, Hua Sun, and Zhilin Qian (East China University of Science and Technology, China)</p> <p><b>Towards Runtime Plug-and-Play Software</b></p> <p>Tao Wang, Xiaowei Zhou, Jun Wei, Wenbo Zhang (Chinese Academy of Sciences, China)</p> <p><b>Good Practices as a Quality-Oriented Modeling Assistant</b></p> <p>Vincent Le Gloahec (Alkante SAS, France), Regis Fleurquin (INRIA/Triskell, Campus Universitaire de Beaulieu, France), and Salah Sadou (Université de Bretagne-Sud, France)</p>
	<p><i>Meeting Room 2</i></p>	<p><b>Emerging Track Session 2</b></p> <p><i>Chair: Prof. Jianjun Zhao</i>, Shanghai Jiao Tong University, China</p> <p><b>A Refinement-Based Validation Method for Programmable Logic Controllers</b></p> <p>Hai Wan (Tsinghua University, China), Xiaoyu Song (Portland State University, USA), Gang Chen (Lingcore Laboratory, USA), and Ming Gu (Tsinghua University,</p>

		<p>China)</p> <p><b>Designing Test Coverage for Gray Box Analysis</b> Faizah Omar and Suhaimi Ibrahim (University Teknologi Malaysia, Malaysia)</p> <p><b>Control and Data Complexity Metrics for Web Service Compositions</b> Chengying Mao (Jiangxi University of Finance and Economics, China)</p> <p><b>Evaluating Website Quality: A Statistical Approach</b> Isabella Biscoglio, Alessandro Coco, Fabrizio Fabbrini, Mario Fusani, Giuseppe Lami, and Gianluca Trentanni (SSEC – ISTI–CNR, Italy)</p> <p><b>Requirement Checking: Generating Uses Cases out of Navigational Logs in Web Applications</b> Zuohua Ding and Mingyue Jiang (Zhejiang Sci-Tech University, China), Geguang Pu, and Jing Liu (East China Normal University, China)</p> <p><b>Testing Long-lived Web Services Transactions Using a Risk-based Approach</b> Ruben Casado and Javier Tuya (University of Oviedo, Spain), and Muhammad Younas (Oxford Brookes University, UK)</p>
	<b>Meeting Room 3</b>	<p><b><i>The First International Workshop on Program Debugging in China (IWPDC 2010)</i></b></p> <p><b><i>Chair: Prof. T.H. Tse</i></b>, The University of Hong Kong, Hong Kong</p> <p>Welcome Remarks from the Workshop Organizer</p> <p><b><i>On the Integration of Test Adequacy, Test Case Prioritization, and Statistical Fault Localization</i></b> Bo Jiang (The University of Hong Kong, Hong Kong) and W. K. Chan (City University of Hong Kong, Hong Kong)</p> <p><b><i>Isolating Suspiciousness from Spectrum-Based Fault Localization Techniques</i></b> Xiaoyuan Xie, Tsong Yueh Chen (Swinburne University of Technology, Australia), and Baowen Xu (Nanjing University, China)</p> <p><b><i>A Debugging Approach for Java Runtime Exceptions Based on Program Slicing and Stack Traces</i></b> Shujuan Jiang, Hongchang Zhang, Qingtan Wang, and Yanmei Zhang (China University of Mining and Technology, China)</p> <p><b><i>A Novel Approach to Automatic Test Case Generation for Web Applications</i></b> Yuan-Hsin Tung, Shian-Shyong Tseng, Tsung-Ju Lee, and Jui-Feng Weng (National Chiao Tung University, Taiwan)</p>
<b>18:00-18:30</b>	<b>Meeting Room 1</b>	<p><b><i>Session 5: Journal of Systems and Software</i></b></p> <p><b><i>Chair: Prof. Hans van Vilet</i></b>, Vrije University, Netherlands</p>
<b>18:30-21:00</b>	<b>Taihe International Banquet Hall</b>	<p><b><i>Conference Banquet</i></b></p> <p><b><i>A Talk from the General Chair of QSIC 2011</i></b></p>

**15 July 2010 (Thursday) Morning**

<i>Time</i>	<i>Place</i>	<i>Content</i>
<b>9:00-10:00</b>	<b>Taihe International Banquet Hall</b>	<b>Keynote 2</b>
		<b>Chair: Prof. W. K. Chan</b> , City University of Hong Kong, Hong Kong <b>Knowledge Sharing in Software Development</b> <b>Hans van Vliet</b> , Department of Information Management and Software Engineering, Vrije University, Netherlands
<b>10:00-10:30</b>		<b>Coffee Break</b>
<b>10:30-12:30</b>	<b>Meeting Room 1</b>	<b>Session 6: Specification Based Testing</b>
		<b>Chair: Prof. Ahmed E. Hassan</b> , Queen's University, Canada
		<b>Test Sequence Generation from Communicating UML State Charts: An Industrial Application of Symbolic Transition Systems</b> Christian Schwarzl (Virtual Vehicle Competence Center, Austria) and Bernhard Peischl (Techn. Universität Graz, Austria)
		<b>Scenarios-based Testing of Systems with Distributed Ports</b> Rob Hierons (Brunel University, United Kingdom), Mercedes Merayo, and Manuel Nunez (Universidad Complutense de Madrid, Spain)
		<b>Specification-based Testing of Intrusion Detection Engines using Logical Expression Testing Criteria</b> Frédéric Massicotte (Communications Research Centre Canada, Canada) and Yvan Labiche (Carleton University, Canada)
	<b>Meeting Room 2</b>	<b>An Experiment with Algebraic Specifications of Software Components</b> Hong Zhu (Oxford Brookes University, UK) and Bo Yu (National University of Defense Technology, China)
		<b>Session 7: Analysis</b>
		<b>Chair: Prof. Kai-Yuan Cai</b> , Beijing University of Aeronautics and Astronautics, China
		<b>Secure Information Flow in Java via Reachability Analysis of Pushdown System</b> Cong Sun, Liyong Tang, and Zhong Chen (Peking University, China)
		<b>Correlating Context-Awareness and Mutation Analysis for Pervasive Computing Systems</b> Huai Wang, Ke Zhai, and T.H. Tse (The University of Hong Kong, Hong Kong)
<b>Meeting Room 2</b>	<b>Automating Reusable-Procedure Discovery through Developer's Action Analysis</b> Zhang Nuyun, Huang Gang, Zhang Ying, Ning Jiang, Mei Hong (Peking University, China)	
	<b>Slicing Concurrent Programs Based on Program Reachability Graphs</b> Xiaofang Qi, Xiaoyu Zhou, and Xiaojing Xu (Southeast University, Nanjing, China), and Yingzhou Zhang (Nanjing University of Posts and Telecommunications, China)	
	<b>Active Monitoring for Control Systems Under Anticipatory Semantics</b> Changzhi Zhao, Wei Dong, and Zhichang Qi (National University of Defense Technology, China)	

	<p><b>Meeting Room 3</b></p>	<p style="text-align: center;"><b><i>International Workshop on Quality of Service-Based Systems (QSBS 2010)</i></b></p> <p><b><i>Chair: Prof. Zhiyong Feng</i></b>, Tianjin University, China</p> <hr/> <p><b><i>Develop Web Services for Reliable Cross-Platform Web Applications</i></b> Jiang Liu (Bradley University, USA)</p> <hr/> <p><b><i>Design of BDI Agent for Adaptive Performance Testing of Web Services</i></b> Bo Ma (Beijing University of Posts and Telecommunications &amp; Tsinghua University, China), Bin Chen, Xiaoying Bai (Tsinghua University, China) and Yunzhan Gong (Beijing University of Posts and Telecommunications, China)</p> <hr/> <p><b><i>NPE - A Conceptual Model and Language for the Representation of Norms</i></b> Andrew Douglas, Robert Walters and Gary Wills (University of Southampton, UK)</p> <hr/> <p><b><i>An Executable Concurrent Model for OWL-S Process Models</i></b> Zhenhua Duan and Cong Tian (Xidian University, China)</p>
<p><b>13:00-14:00</b></p>		<p><b>Lunch</b></p>

15 July 2010 (Thursday) Afternoon

<i>Time</i>	<i>Place</i>	<i>Content</i>
14:00-15:30	Meeting Room 1	<b>Session 8: Test Case Generation</b> <i>Chair: Prof. Yvan Labiche</i> , Carleton University, Canada
		<b>Prioritizing Unit Test Creation for Test-Driven Maintenance of Legacy Systems</b> Emad Shihab, Zhen Ming Jiang, Bram Adams, and Ahmed E. Hassan (Queen's University, Canada), and Robert Bowerman (Research In Motion, Canada)
		<b>Adaptive Random Testing by Exclusion through Test Profile</b> Huai Liu (Swinburne University of Technology, Australia), Xiaodong Xie, Jing Yang, and Yansheng Lu (Huazhong University of Science and Technology, China), and Tsong Yueh Chen (Swinburne University of Technology, Australia)
	Meeting Room 2	<b>Session 9: Verification</b> <i>Chair: Prof. Zuohua Ding</i> , Zhejiang Sci-Tech University, China
		<b>Automated Conformance Verification of Hybrid Systems</b> Harald Brandl, Martin Weiglhofer, and Bernhard K. Aichernig (Graz University of Technology, Austria)
		<b>An Extension to Data-Flow-Oriented Formal Specification Language for Specifying Concurrent Software Systems</b> Yuting Chen (Shanghai Jiao Tong University, China), Shaoying Liu (Hosei University, Japan), and Linzhang Wang (Nanjing University, China)
		<b>Automated Program Verification Using Generation of Invariants</b> Jianying Xing and Mengjun Li (National University of Defense Technology, China), and Zhoujun Li (Beihang University, China)
		<b>Formal Modeling and Verification of Low-Level Software Programs</b> Björn Bartels and Sabine Glesner (Technische Universität Berlin, Germany)
	Meeting Room 3	<b>International Workshop on Quality of Service-Based Systems (QSBS 2010) – Panel</b> <i>Chair: Prof. Xiaoying Bai</i> , Tsinghua University, China
		Prof. Paola Inverardi, University of L'Aquila, Italy
		Prof. Hong Zhu, Oxford Brookes University, UK
		Prof. Hongji Yang, De Montfort University, UK
Prof. W.K. Chan, City University of Hong Kong, Hong Kong		
15:30-16:00		<b>Coffee Break</b>
16:00-17:20	Meeting Room 1	<b>Session 10: Profile and Coverage</b> <i>Chair: Dr. Huai Liu</i> , Swinburne University of Technology, Australia
		<b>Software Operational Profile Modeling and Reliability Prediction with an Open Environment</b> Xiaofeng Lei, Chenggang Bai, and Liang Su (Beihang University, China)
		<b>Visualized Scenario Classification Method</b> Yusaku Yoshida and Atsushi Ohnishi (Ritsumeikan University, Japan)
		<b>Open Code Coverage Framework: A Consistent and Flexible Framework for Measuring Test Coverage Supporting Multiple Programming Languages</b>

		Kazunori Sakamoto, Hironori Washizaki, and Yoshiaki Fukazawa (Waseda University, Japan)
		<b>Event Handler-Based Coverage for GUI Testing</b> Lei Zhao and Kai-Yuan Cai (Beijing University of Aeronautics and Astronautics, China)
<b>Meeting Room 2</b>	<b>Session 11: Service Composition</b>	
	<b>Chair: Prof. T.Y. Chen</b> , Swinburne University of Technology, Australia	
	<b>Performance Prediction of WS-CDL Based Service Composition</b> Yunni Xia, Hongchao Xue, Xiuwu Wang (Chongqing University, China)	
	<b>A Fault-Tolerant Strategy for Improving the Reliability of Service Composition</b> Huiqun Yu and Guisheng Fan (East China University of Science and Technology, China), Liqiong Chen (Shanghai Institute of Technology, China), Dongmei Liu (East China University of Science and Technology, China)	
	<b>Web Services Testing Based on Stream X-machine</b> Chunyan Ma, JunSheng Wu, and Tao Zhang (NorthWestern Polytechnical University, China), and Fei Hu (Shang Hai Jiao Tong University, China)	
	<b>A Type System for Behavior Consistent Service Substitution in Service Compositions</b> JunQing Chen and LinPeng Huang (Shang Hai Jiao Tong University, China)	
<b>Meeting Room 3</b>	<b>International Workshop on Quality of Service-Based Systems (QSBS 2010)</b>	
	<b>Chair: Prof. Hongyu Zhang</b> , Software Institute, Tsinghua University, China	
	<b>Algebraic Specification of Web Services</b> Hong Zhu (Oxford Brookes University, UK) and Bo Yu (National University of Defense and Technology, China)	
	<b>Point-of-Interest Aware Test Case Prioritization: Methods and Experiments</b> Ke Zhai (The University of Hong Kong, Hong Kong) and W.K. Chan (City University of Hong Kong, Hong Kong)	
	<b>A Probabilistic QoS Model-Checking for Dynamic Routing Protocol</b> Hongli Yang, Liang Zhou, Kang He, Chen Deng (Beijing University of Technology, China), Xiangpeng Zhao (Microsoft, China), and Zongyan Qiu (Peking University, China)	
		<b>Web Service Security Analysis Model Based on Program Slicing</b> Xiaohong Li , Yan Cao, Zhiyong Feng and Ran Liu (Tianjin University, China)

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