

SSIRI 2009 Program

July 8 (Wednesday)

- 07:30 – 08:15** **Registration**
08:15 – 08:30 **Opening Ceremony**
08:30 – 10:00 **Keynote Address**

- **Probabilistic Programming With Coordination and Compensation**
Professor Ji-Feng He
Shanghai Key Laboratory of Trustworthy Computing
East China Normal University, China
- **Security Engineering: Developments and Directions**
Professor Bhavani Thuraisingham
Department of Computer Science
University of Texas at Dallas, USA

- 10:00 – 10:30** **Coffee Break**
10:30 – 12:00

Session 1A: Compositionality

- *Automated Web Service Composition System on Enterprise Service Bus*
Xinhua Tang, Sizhe Sun, Xiaozhou Yuan and Delai Chen
- *Architectural Availability Analysis of Software Decomposition for Local Recovery*
Hichem Boudali, Hasan Sozer and Marielle Stoelinga
- *Recursive Decomposition of Progress Graphs*
David Cape, Bruce McMillin, Benjamin Passer and Mayur Thakur

Session 1B: Runtime Systems

- *CacheBit: A Multisource-Multitarget Cache Instrumentation Tool*
Chao Xu, Jinghui Gu, Ling Lin, Alei Liang and Haibing Guan
- *FiLM: A Runtime Monitoring Tool for Distributed Systems*
Fuyuan Zhang, Zhengwei Qi, Xuezheng Liu, Mao Yang and Zheng Zhang
- *Semantics of Scheduling and Controlling Distributed Resource Based Computing Engines*
Pradeep Varma and Vijay Naik

Session 1C: Vulnerability Detection and Defense

- *A Trust-Based Detecting Mechanism against Profile Injection Attacks in Recommender Systems*
Qiang Zhang, Yuan Luo, Chuliang Weng and Minglu Li

- *Detection of Multiple-Duty-Related Security Leakage in Access Control Policies*
JeeHyun Hwang, Tao Xie and Vincent Hu
- *A Game Theoretic Approach to Decision and Analysis in Strategies of Attack and Defense*
Jin-Cherng Lin and Jan-Min Chen

12:00 – 13:30 Lunch

13:30 – 15:00

Session 2A: Aspect-Oriented Programming

- *Verifying Aspect-Oriented Programs using Open Temporal Logic*
Jia Lv, Jing Ying, Minghui Wu, Tao Jiang and Fanwei Zhu
- *Anchored Text For Software Weaving and Merging*
Pradeep Varma
- *A Classification of Aspect Composition Problems*
Kun Tian, Kendra Cooper, Kang Zhang and Huiqun Yu

Session 2B: Verification

- *Visualizing Multiple Program Executions to Assist Behavior Verification*
Chunying Zhao, Kang Zhang, Jie Hao and W. Eric Wong
- *On the Verification of Strong Atomicity of Programs Using STM*
Yong Li, Yu Zhang, Yiyun Chen and Ming Fu
- *State Space Reduction for Verifying Noninterference*
Conghua Zhou and Li Chen

Session 2C: Security Requirements

- *An Analysis for Understanding Software Security Requirement Methodologies*
Jing Du, Ye Yang and Qing Wang
- *An DSL Framework for Policy-based Security of Distributed Systems*
Hedi Hamdi and Mohamed Mosbah
- *Environmental Metrics for Software Security Based on a Vulnerability Ontology*
Ju An Wang, Minzhe Guo, Hao Wang, Min Xia and Linfeng Zhou

15:00 – 15:30 Coffee Break

15:30 – 17:30

Session 3A: Testing

- *Performance Testing of Mobile Applications at the Unit Test Level*
Heejin Kim, Byoungju Choi and W. Eric Wong
- *Analyzing Relation between Software Architecture Testing Criteria on Test Sequences*
Lijun Lun and Xuemei Ding

- *Six-Sigma Based Performance Verification in Early Development of Automatic Test Equipment*
Madhu Kilari, Juan Riojas and Tongdan Jin
- *A Graph-Model-Based Testing Method Compared with the Classification Tree Method for Test Case Generation*
Fevzi Belli, Axel Hollmann and Markus Kleinselbeck

Session 3B: Modeling, Analysis, and Forensics

- *A New Method to Model and Analyze the WS-BPEL Process under the Dead-Path-Elimination Semantics*
Chunxiang Xu, Hanpin Wang, Wanling Qu, Jiaqi Zhu and Yu Huang
- *Software Reliability Prediction and Analysis Using Queuing Models with Multiple Change-Points*
Tsui-Ying Hung and Chin-Yu Huang
- *ReconBin: Reconstruct Binary File from Execution for Software Static Analysis*
Lingyun Ying, Purui Su, Dengguo Feng, Xianggen Wang, Yi Yang and Yu Liu
- *A Comparative Study of Forensic Science and Computer Forensics*
Ryan Hankins, Tetsutaroh Uehara and Jigang Liu

Session 3C: Security

- *Provable Secure AKA Scheme with Reliable Key Delegation in UMTS*
Yu-Lun Huang, C. Y. Shen, Shiuhyng Shieh, Hung-Jui Wang, and Cheng-Chun Lin
- *An Efficient and Secure Multi-Secret Image Sharing Scheme with General Access Structure*
Ching-Fan Lee and Justie Su-Tzu Juan
- *Efficient Multi-secret Sharing Scheme Using Room Square*
Ming-Jheng Li, Ying-Hsuan Chang and Justie Su-Tzu Juan

18:00 – 19:30 Conference Reception (Hengshan Hotel)

July 9 (Thursday)

07:30 – 08:30 **Registration**

08:30 – 10:00 **Keynote Address**

- **Automatic Test Data Generation: Who, When and Where?**

Professor Jeff Offutt
School of Information and Technology
George Mason University, USA

- **Reliability for Software-based Systems**

Dr. Frances Paulisch
Siemens AG Corporate Technology
München, Germany

10:00 – 10:30 **Coffee Break**

10:30 – 12:00

Session 4A: Short Papers I

- *Checking Service Instance Protection for AMF Configurations*
Pejman Salehi, Ferhat Khendek, Maria Toeroe, Abdelwahab Hamou-Lhadj and Abdelouahed Gherbi
- *Security Variability Design and Analysis in an Aspect Oriented Software Architecture*
Lirong Dai
- *Web Services Test Data Generation Based on Contract Mutation*
Ying Jiang, Yingna Li and Shanshan Hou

Session 4B: Fast Abstracts I

- *A Turing Machine-Based Model for Computer Forensic Re-construction*
Ryan Hankins, Tetsutaroh Uehara and Jigang Liu
- *Implementation of the Privacy Protection in Video Surveillance System*
Hae Min Moon and Sung Bum Pan
- *An Approach to Improving Reliability for Distributed Video-Based Monitoring Systems*
Michael Jiang

Session 4C: Student Doctoral Program I

- *Research and Evaluation on Modularity Modeling in Community Detecting of Complex Network Based on Information Entropy*
Xiaolong Deng and Bai Wang
- *Semantic ACP2P Information Retrieval Method*
Haibo Yu, Tsunenori Mine and Makoto Amamiya
- *A Fast and Flexible Platform for Fault Injection and Evaluation in Verilog-based Simulations*
David Kammler, Junqing Guan, Gerd Ascheid, Rainer Leupers and Deinrich Meyr

12:00 – 13:30 Lunch
13:30 – 15:00

Session 5A: Panel

Evolving Software Models for Global Organizations
Moderator: Vivek Gupta

Session 5B: T4CIA Workshop I

- *Systematic Cooperation between Industry and Universities –The Experience from Siemens IT Solutions and Services*
Rudolf Siebenhofer
- *Improving Test Quality by a Test Type Analysis Based Method*
Qin Liu
- *A Safe Approach to Shrink Email Sample Set while Keeping Balance between Spam and Normal*
Lili Diao

Session 5C: Short Papers II

- *Adaptation Strategies for Performance Failure Avoidance*
Hong Sun, Vincenzo De Florio, Ning Gui and Chris Blondia
- *Java Card Performance Optimization of Secure Transaction Atomicity based on Increasing the Class Field Locality*
Johannes Loinig, Christian Steger, Reinhold Weiss and Ernst Haselsteiner
- *Generating Test Cases for Timed Systems from Controlled Natural Language Specifications*
Matthias Schnelte

15:00 – 15:30 Coffee Break
15:30 – 17:30

Session 6A: 2010 planning session

Session 6B: T4CIA Workshop II

- *Automatic Test Data Generation for C Programs*
Prasad Bokil, Priyanka Darke, Ulka Shrotri and R Venkatesh
- *Reliability Prediction of Web Service Composition Based on DTMC*
Yingxin Ren, Qing Gu, Keqiang Cao, Jingxian Qi and Daoxu Chen
- **Panel (16:30 – 17:30)**
Increase Industry and Academy Cooperation in Testing Technologies and Tools for Critical Industry Applications
Moderator: Bao Tang

Session 6C: MVV Workshop

- *Temporal Specification and Deductive Verification of a Distributed Component Model and Its Environment*
Alessandro Basso, Alexander Bolotov and Vladimir Getov
- *Communication Sequence Graphs for Mutation-Oriented Integration Testing*
Fevzi Belli, Axel Hollmann and Sascha Padberg
- *Towards a lightweight and dynamically evolving test prioritization and selection scheme*
Rajesh Subramanyan
- *Directed Acyclic Graph Modeling of Security Policies for Firewall Testing*
Tugkan Tuglular, Ozgur Kaya, Can Arda Muftuoglu and Fevzi Belli

18:00 – 20:00 Conference Banquet

July 10 (Friday)

07:30 – 08:30 **Registration**

08:30 – 09:30 **Keynote Address**

“Complexity – Interoperability – Deployment of Software”: Are We on the Right Way of Progress in the Software Industry?

Rudolf Siebenhofer
COO of Siemens IT Solutions and Services, China

09:30 – 10:00 **Coffee Break**

10:00 – 12:00

Session 7A: Short Papers III

- *A New Method to Generate Attack Graphs*
Anming Xie, Guodong Chen, Yonggang Wang, Zhong Chen and Jianbin Hu
- *A Comparative Study of Access Control Languages*
Sathish Pinagapani, Dianxiang Xu and Jun Kong
- *JPEG 2000 and Digital Watermarking Technique using in Medical Image*
Sung Jin Lim, Hae Min Moon, Seung-Hoon Chae, Yongwha Chung, and Sung Bum Pan
- *A Developed Dynamic Environment Fault Injection Tool for Component Security Testing*
Binbin Qu, Yin Huang and Yansheng Lu

Session 7B: Student Doctoral Program II

- *Multidimensional Approach to Quality Analysis of IPSec and HTTPS Applications*
Marcin Barylski and Henryk Krawczyk
- *Software Stability Model (SSM) for Building Reliable Real Time Computing Systems*
Eugene Xavier P and E R Naganathan
- *Extending Model Driven Architecture with Software Security Assessment*
Xucheng Tang and Beijun Shen

Session 7C: Fast Abstracts II

- *Path-based Approach to Integration Testing*
Jueliang Hu, Zuohua Ding and Geguang Pu
- *Simplifying Parameterization of Bayesian Networks in Prediction of System Quality*
Aida Omerovic and Ketil Stølen
- *Port Based Reliability Computing For Service Composition*
Zuohua Ding
- *Improvement of QoS in Process Centric Software Development Using ANP*
Ajit Srividya, Kovur Krishna Mohan and Ajit Kumar Verma

12:00 – 13:30 Lunch

15:30 – 19:30 Conference Excursion

Shanghai Yuyuan Garden

(http://www.travelchinaguide.com/attraction/shanghai/yuyuan_garden.htm)

Shanghai Chenghuang Temple

(http://www.chinaculture.org/library/2008-02/04/content_24349.htm)