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*
  Xinhuai 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, Zhongwei 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, Shiuhyung 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)