

**The Second IEEE International Conference on
Secure System Integration and Reliability Improvement (SSIRI 2008)**

<http://paris.utdallas.edu/ssiri08>

**July 14-17, 2008
Yokohama, Japan**

PROGRAM

July 14, Monday

9:30 – 10:00 Opening Session

- General Chair: Professor Shuichi Fukuda
- Program Chair: Professor W. Eric Wong
- Local Arrangement Chair: Professor Masakai Shiratori

10:00 – 11:00 Keynote I

Comprehensive Strategy for Creating Science and Technology Driven Innovation in Japan:
Bridging Knowledge Creation and Socio-Economic Value

Dr. Ayao Tsuge.

President, Shibaura Institute of Technology
Executive Member, Science Council of Japan
Board Member, Engineering Academy of Japan

11:00 – 12:00 Keynote II

Reliability Engineering in the Next Generation

Professor Michael Pecht
University of Maryland

12:00 – 14:00 Lunch

14:00 – 18:00 Tutorial I

eFuse Design and Reliability

William R. Tonti

IBM Semiconductor Research and Development Corporation

18:30: Conference Reception at the Kaseiro Hanten Chinese Restaurant

July 15, Tuesday

9:30 – 11:00 Security (1)

- *Vulnerability analysis of HD photo image viewer applications*
Clifford C. Juan, James Bret Michael, and Christopher S. Eagle
- *A pollution attack resistant multicast authentication scheme tolerant to packet loss*
Warren W. Lin, Shiuhyng Shieh and Jia-Chun Lin
- *Evaluation of power-constant dual-rail logic as a protection of cryptographic applications in FPGAs*
Sylvain Guilley, Laurent Sauvage, Jean-Luc Danger, Tarik Graba and Yves Mathieu

9:30 – 11:00 Testing (1)

- *An experimental evaluation of the reliability of adaptive random testing methods*
Yu Liu and Hong Zhu
- *Pairwise testing in the presence of configuration change cost*
Shin Kimoto, Tatsuhiro Tsuchiya and Tohru Kikuno
- *Historical value-based approach for cost-cognizant test case prioritization to improve the effectiveness of regression testing*
Hyuncheol Park, Hoyeon Ryu, and Jongmoon Baik

11:00 – 11:30 Coffee Break

11:30 – 13:00 Reliability (1)

- *Validating UML statechart-based assertions libraries for improved reliability and assurance*
Doron Drusinsky, James Bret Michael, Thomas W. Otani and Man-Tak Shing
- *Ensuring reliability and availability of soft system bus*
Mohammad Reza Selim, Yuichi Goto, and Jingde Cheng
- *A method of reliability assessment based on deterministic chaos theory for an open source software*
Yoshinobu Tamura and Shigeru Yamada

11:30 – 13:00 Real-time and Embedded Systems

- *Reliability improvement of real-time embedded system using checkpointing*
Sang-Moon Ryu
- *Dynamic performance analysis for software system considering real-time property in case of NHPP task arrival*
Koichi Tokuno and Shigeru Yamada
- *Shortening test case execution time for embedded software*
Valdivino Santiago, Wendell P. Silva and N.L. Vijaykumar

13:00 – 14:30 Lunch

14:30 – 16:00: Security (2)

- *A blind watermarking scheme based on wavelet tree quantization*
Wei-Hung Lin, Yuh-Rau Wang and Shi-Jinn Horng
- *Lightweight, distributed key agreement protocol for wireless sensor networks*
Che-Cheng Lin, Shiu-Pyng Shieh and Jia-Chun Lin

14:30 – 16:00: Automation and Product Lifetime

- *Automated fault diagnosis in embedded systems*
Peter Zoeteweij, Jurryt Pietersma, Rui Abreu, Alexander Feldman and Arjan J.C. Van Gemund
- *Two methods for estimating product lifetimes from only warranty claims data*
Kazuyuki Suzuki, Mesbahul Alam, Takuji Yoshikawa and Wataru Yamamoto
- *Adaptive car plate recognition in QoS-aware security network*
Pei-Chen Tseng, Jiun-kuei Shiung, Chun-Ting Huang, Shih-Mine Guo and Wen-Shyang Hwang

9:30 – 16:00 Tutorial II

Mechanical System Reliability and Assurance

Richard L. Doyle

16:00 – 16:30 Coffee Break

16:30 – 17:00 Award and Planning Session

- **Best paper award for SIIRI 2008**
- **Recognition of SSIRI 2008 organizers and PC members**
- Presentation of SSIRI 2009: July 6-9, 2009, Shanghai, China

July 16, Wednesday

9:30 – 11:00 Testing (2)

- *GUI test script organization with component abstraction*
Woei-Kae Chen, Zheng-Wen Shen and Che-Ming Chang
- *Which spot should I test for effective embedded software testing?*
Jooyoung Seo, Yuhoon Ki, Byoungju Choi and Kwanghyun La

11:00 – 11:30 Coffee Break

11:30 – 13:00 Reliability (2)

- *Two-dimensional software reliability assessment with testing-coverage*
Shinji Inoue and Shigeru Yamada
- *A study of estimation for the three-parameter Weibull Distribution based On doubly type-2 censored data using a least squares method*
Hideki Nagatsuka
- *Proposal for a communication link model based on resonance frequency of network users*
Masato Uwajima, Toru Sasaki, Chisa Takano and Masaki Aida

13:00 – 14:30 Lunch

14:30 – 16:00 Fast Abstract (1)

- *Towards an interface causing discomfort for security: a user survey on the factors of discomfort*
Yasuhiro Fujihara, Hitomi Oikawa and Yuko Murayama
- *Improving software integration from requirements process with a model-based object oriented approach*
Chih-Hung Chang, Chih-Wei Lu, and William C. Chu
- *An enhanced model for early software reliability prediction using software engineering metrics*
K. Saravana Kumar and R.B. Misra
- *Application to artificial hip stem design of an emergent design system applicable in the early process of design*
Koichiro Sato, Yoshiki Ujiie and Yoshiyuki Matsuoka
- *Application of design for Six Sigma in third party intensive programs*
Subramanyam Ranganathan and Cvetan Redzic
- *Risk-driven software testing and reliability*
Norm Schneidewind and Mike Hinchey

9:30 – 16:00 Tutorial III

Six Sigma Contributions to Reliability

Sam Keene

18:30: Conference Banquet

July 17, Thursday

9:30 – 11:00 Fast Abstract (2)

- *A model of bug dynamics for open source software*
Fengzhong Zou and Joseph Davis
- *Co-simulation of networked embedded system: Verification Approach*
Nikhil Damle and A.G. Keskar
- *Text extraction in video images*
Shwu-Huey Yen, Chun-Wei Wang, Jih-Pin Yeh, Meng-Ju Lin, and Hwei-Jen Lin
- *A study of visibility evaluation for the combination of character color and background color on a web page*
Nobuyuki Nishiuchi, Kimihiro Yamanaka and Kunie Beppu
- *An ant colony optimization approach to multi-objective supply chain model*
Ruoying Sun, Xingfen Wang and Gang Zhao
- *Development of fuzzy software operational profile*
K. Saravana Kumar, Ravindra Babu Misra and Neeraj Kumar Goyal
- *Effect of creep properties on pressure induced tin whisker formation*
Tadahiro Shibutani, Qiang Yu, and Masaki Shiratori

11:00 – 11:30 Coffee Break

11:30 – 13:00 Fast Abstract (3)

- *Design of experiments is the sweet spot of Six Sigma*
Samuel Keene
- *Verifiable aspect composition in UML models*
Eunjee Song and Nathan V. Roberts
- *A new method for measuring single event effect susceptibility of L1 cache unit*
Yongbin Zhou, Jun Yang and Yueke Wang
- *Detecting emotions and dangerous actions for better human-system team working*
Shuichi Fukuda
- *Estimation of the change point for failure-censored data via Bayesian information criterion*
Nobuyuki Tamura, Tetsushi Yuge and Shigeru Yanagi
- *Dependable mechatronic products: closing the intelligence gap*
Nico Wolf and Jan C. Aurich
- *System-bus fault injection framework in system C design platform*
Kun-Chun Chang, Yi-Chinag Wang, Chung-Hsien Hsu, Kuen-Long Leu and Yung-Yuan Chen

13:00 – 14:30 Lunch

14:30 – 16:00 Fast Abstract (4)

- *Strategic usage of test case generation by combining two test case generation approaches*
Haruka Nakao and Robert Eschbach
- *An experimental study on latch up failure of CMOS LSI*
Hideo Kohinata, Masayuki Arai and Satoshi Fukumoto
- *Conception for integrated availability in design for nuclear systems*
Vasile Anghel
- *An estimation model of vulnerability for embedded microprocessors*
Yung-Yuan Chen, Shu-Hao Hsu and Kuen-Long Leu
- *Early reliability prediction: an approach to software reliability assessment in open software adoption stage*
Wangbong Lee, Boo-Geum Jung and Jongmoon Baik
- *Automation of look-up tables for system integrity protection systems in Taiwan Power System*
Shih-En Chien, I-Ta Cherng and Chih-Wen Liu
- *Face detection based on skin color segmentation and SVM classification*
Hwei-Jen Lin, Shwu-Huey Yen, Jih-Pin Yeh, and Meng-Ju Lin

9:30 – 16:00 Tutorial IV

Dependable and Trustworthy Systems

J. Bret Michael
U.S. Naval Postgraduate School