**Nov. 10 2011 (Thursday)**

|  |
| --- |
| **Breakfast: 7:00 AM – 8:30 AM (Royal Palm Foyer)** |
| **Conference Opening : 8:30 AM – 8:45 AM (Parlor II & III)** |
| **Keynote Speech I****8:45 AM – 9:45 AM (Parlor II & III)****Marine Renewable Energy: HASE ChallengesHoward P. Hanson, Ph.D.** |
| **Coffee Break: 9:45 AM – 10:00 AM (Royal Palm Foyer)** |
| **Parallel Morning Sessions: 10:00 AM – 12:00 PM** |
| **Location: Parlor II & III** | **Location: Salon A & B** |
| **Session A: Software Testing and Validation****Chair: Ray Paul*****Regular: (25 minutes each)***32: A Testing Service for Lifelong Validation of Dynamic SOA. Andrea Ceccarelli, Andrea Bondavalli and Marco Vieira.50: Supporting Iterative Development of Robust Operation Contracts in UML Requirements Models. Wuliang Sun, Robert B. France and Indrakshi Ray.102. Improve the Effectiveness of Test Case Generation on EFSM via Automatic Path Feasibility Analysis. Rui Yang, Zhenyu Chen, Baowen Xu, W. Eric Wong and Jie Zhang.***Short: (20 minutes each)***49: Model Driven Validation of System Architectures. Andre Pflüger, Wolfgang Golubski and Stefan Queins.64: Regression Testing of Component-based Software: A Systematic Practise based on State Testing. Chuanqi Tao, Jerry Gao and Bixin Li. | **Session B:** **Modeling Checking and Verification I****Chair: John C. Sloan*****Regular: (30 minutes each)***12: A Unifying Approach to Validating Specification-Oriented XML Constraints. Yongxin Zhao, Zheng Wang, Hao Xiao, Jing Ping, Geguang Pu, Jifeng He and Huibiao Zhu.46: An Event-B Interpretation for SPARDL Model. Jianwen Li, Zheng Wang, Yongxin Zhao, Geguang Pu, Bin Gu and Yanxia Qi.35: [A Behavioral Analysis Approach for Efficient Partial Order Reduction](http://www.easychair.org/conferences/review_for_paper.cgi?a=c000d5a0a179;paper=789524). Yingying Zhang, Emmanuel Rodriguez, Hao Zheng, and Chris Myers. ***Short: (20 minutes each)***67: [Animating the Approach of Deriving Operational Semantics from Algebraic Semantics for Web Services](http://www.easychair.org/conferences/review_for_paper.cgi?a=c000d5a0a179;paper=791550). Qian Wang and Huibiao Zhu. |
| **Lunch break: 12:15 PM – 13:30PM (Boca Ballroom)** |

|  |
| --- |
| **Parallel Afternoon Sessions: 1:30 PM – 3:30 PM** |
| **Location: Parlor II & III** | **Location: Salon A & B** |
| **Session C: Applications and Technologies****Chair: Mladen Vouk*****Regular: (30 minutes each)***23:Combining Goal Models, Expert Elicitation, and Probabilistic Simulation for Qualification of New Technology. Mehrdad Sabetzadeh, Davide Falessi, Lionel Briand, Stefano Di Alesio, Dag Mcgeorge, Vidar Åhjem and Jonas Borg.105: On High-Assurance Scientific Workflows. Mladen A. Vouk and Pierre A. Mouallem16: Integrating Legacy Applications for High Availability: a Case Study. Ali Kanso, Anik Mishra, Maria Toeroe and Ferhat Khendek. ***Short: (20 minutes each)***70: Personal Health Record System and Integration Techniques with Various Electronic Medical Record Systems. Vishesh Ved, Vivek Tyagi, Ankur Agarwal and Dr Abhijit Panday.

|  |  |
| --- | --- |
|  |  |

 | **Session D: High Assurance Distributed Systems** **Chair: Si Liu*****Regular: (30 minutes each)***34: The OASIS kernel: a framework for high dependability real-time systems. Stephane Louise, Matthieu Lemerre, Vincent David and Christrophe Aussagues.17: Conflict Detection and Lifecycle Management for Access Control in Publish/Subscribe Systems. Patrick Hein, Debmalya Biswas, Leonardo A. Martucci and Max Mühlhäuser.58: Discriminatively Fortiﬁed Computing with Reconﬁgurable Digital Fabric. Mingjie Lin, Yu Bai, and John Wawrzynek.***Short: (20 minutes each)***24: Enumerating software failures to build dependable distributed applications. Ingrid Buckley and Eduardo B. Fernandez.10: Leader-Determined Membership Protocol. Wenbing Zhao, Peter Michael Melliar-Smith and Louise E. Moser. |
| **Coffee Break: 3:30 PM – 4:00 PM (Royal Palm Foyer)** |
| **Parallel Afternoon Sessions: 4:00 PM – 5:30 PM** |
| **Location: Parlor II & III** | **Location: Salon A & B** |
| **Session E: Model Checking and Verification II****Chair: Victor Winter*****Regular: (25 minutes each)***25: Reducing State Explosion with Context Modeling for Model-Checking. Philippe Dhaussy, Frédéric Boniol and Jean-Charles Roger.19: Guidelines for Formal Domain Modeling in Event-B. Atif Mashkoor and Jean-Pierre Jacquot.***Short: (20 minutes each)***5: Patterns for Representing FMEA in Formal Specification of Control Systems. Ilya Lopatkin, Alexei Iliasov, Alexander Romanovsky, Yuliya Prokhorova, and Elena Troubitsyna.4. Monarch: A High-Assurance Java-to-java (J2j) Source-code Migrator. Victor Winter, Jonathan Guerrero, Carl Reinke and James Perry. | **Session F: High Assurance Networked Systems and Services****Chair: Michael Melliar-Smith*****Short: (20 minutes each)***13: A Calculus for Mobile Ad Hoc Networks from a Group Probabilistic Perspective. Si Liu, Yongxin Zhao, Huibiao Zhu, and Qin Li.71. A Real Time Window-based Local Call Admission Control Algorithm for IP Networks. Sami Alwakeel and Shaker Alghanmi.53. Anytime Available Single IP Address Cluster. Hajime Fujita and Yutaka Ishikawa.

|  |  |
| --- | --- |
|  |  |

 |
| **Reception and Poster Presentations: 6:00PM – 8:30PM (Boca Ballroom)****Chair: Taghi M. Khoshgoftaar**3: Autonomous Online Expansion Technology for ZigBee Wireless Sensor Networks. Md. Emdadul Haque, Fan Wei, Takehiro Gouda, Xiaodong Lu and Kinji Mori.28: A Security Modelling Framework for Systems of Embedded Components. Antonio Maña and Jose Francisco Ruiz.41: On the Relationship between Preprocessor based Software Variability and Software Defects. Kunming Nie and Li Zhang.45: Towards a Security Domain Model for Embedded Systems. Simin Nadjm-Tehrani and Maria Vasilevskaya.48: A Task-Based Code Review Process and Tool to Comply with the DO-278/ED-109 Standard for Air Traffic Managment Software Development – A Case Study. Mario Bernhart, Stefan Reiterer, Kilian Matt, Andreas Mauczka and Thomas Grechenig.57: Self-Healing Data Exchange Process Under Evolving Schemas: a New Mapping Adaptation Approach based on Self-Optimization. Hicham Assoudi and Hakim Lounis.61: Comparison and Analysis of Cryptographic Algorithms Aiming Performance Improvement in Secure Web Services. Douglas Rodrigues, Daniel Pigatto, Julio Cezar Estrella and Kalinka Regina Castelo Branco.

|  |
| --- |
|  |

 |

**Nov. 11 2011 (Friday)**

|  |
| --- |
| **Breakfast: 7:00 AM – 8:30 AM (Royal Palm Foyer)** |
| **Keynote Speech II****8:30 AM – 9:30 AM (Parlor II & III)****Are High-Assurance Computing Clouds Possible?Mladen Vouk, PhD** |
| **Coffee Break: 9:30 AM – 10:00 AM (Royal Palm Foyer)** |
| **Parallel Morning Sessions: 10:00 AM – 12:00 PM** |
| **Location: Parlor II & III** | **Location: Salon A & B** |
| **Session G: Safety-critical Systems****Chair: I-Ling Yen*****Regular: (30 minutes each)***107: Using SysML for Modeling of Safety-Critical Software-Hardware Interface Drivers: Guidelines and Industry Experience. Mehrdad Sabetzadeh, Shiva Nejati, Lionel Briand Anne-Heidi Evensen Mills.106: An Early Design Stage UML-Based Safety Analysis Approach for High Assurrance Software Systems. Chetan Mutha, Carol Smidts.54: Worst Case Temporal Consistency in Integrated Modular Avionics Systems. Michaël Lauer, Frédéric Boniol, Jérôme Ermont and Claire Pagetti. 22: High-Assurance Reconfigurable Multicore Processor Based Systems. Manasi Peshave, Farokh Bastani and I-Ling Yen. | **Session H: High Assurance Ocean Systems****Chair: John C. Sloan*****Regular: (30 minutes each)***20: Ensemble Coordination for Discrete Event Control. John Sloan and Taghi Khoshgoftaar. 38: Using Feature Selection to Determine Optimal Depth for Wavelet Packet Decomposition of Vibration Signals for Ocean System Reliability. Randall Wald, Taghi Khoshgoftaar and John Sloan.30: A Dynamometer for an Ocean Turbine Prototype -- Reliability Through Automated Monitoring. Janell Duhaney, Taghi Khoshgoftaar, John Sloan, Bassem Alhalabi and Pierre-Philippe Beaujean.51: Smart Vibration Monitoring System for an Ocean Turbine. Mustapha Mjit, Pierre-Philippe J. Beaujean and David J. Vendittis. |
| **Lunch Break: 12:15 PM – 13:30 PM (Boca Ballroom)** |

|  |
| --- |
| **Parallel Afternoon Sessions: 1:30 PM – 3:30 PM** |
| **Location: Parlor II & III** | **Location: Salon A & B** |
| **Session I: Performance, Reliability and Availability Analysis****Chair: Mladen Vouk*****Regular: (30 minutes each)***62: An Availability Model of a Virtual TMR System with Applications in Cloud/Cluster Computing. Ricardo Paharsingh and Olivia Das. 108: Efficient System Reliability with Correlated Component Failures. Lance Fiondella, Sanguthevar Rajasekaran, and Swapna S. Gokhale103: Benchmarking Embedded Software Development Project Performance. Michael F. Siok and Jeff Tian***Short: (20 minutes each)***36: Modeling Recovery Strategies in Service-Oriented Architecture Using a Markov Decision Process. Dongeun Lee, Eunjeong Park and Heonshik Shin. | **Session J: Monitoring****Chair: Ankur Agarwal*****Regular: (30 minutes each)***14: Multi-layer Monitoring for Cloud Computing. Javier Gonzalez, Antonio Muñoz and Antonio Maña. 40: Using Automated Control Charts for the Runtime Evaluation of QoS Attributes. Ayman Amin, Alan Colman, and Lars Grunske. ***Short: (20 minutes each)***39: VMDetector: A VMM-based Platform to Detect Hidden Process by Multi-view Comparison. Ying Wang, Chunming Hu and Bo Li.63: Validation of Object Recognition Framework on Android Mobile Platform. Vivek Tyagi, A.S. Pandya, Ankur Agarwal, and Bassem Alhalabi. |
| **Coffee Break: 3:30 PM – 4:00 PM (Royal Palm Foyer)** |
| **Panel****4:00 PM – 5:30 PM (Parlor II & III)****High Assurance Systems: State of the Art and Practice.****Moderator:****Taghi M. Khoshgoftaar****Panelists:****Bojan Cukic, Konji Mori, Ray Paul, Carlos Perez, Sahra Sedigh,** **John Sloan, Mladen Vouk, Victor Winter, I-Ling Yen** |
| **Banquet 6:30PM – 9:00PM (Boca Ballroom)** |

Nov. 12, 2011 (Saturday)

|  |
| --- |
| **Breakfast: 7:00 AM – 8:30 AM (Royal Palm Foyer)** |
| **Keynote Speech III****8:30 AM – 9:30 AM (Parlor II & III)****In Pursuit of Software Faults: Status and Challenges****Bojan Cukic, PhD****Robert C. Byrd Professor****Computer Science and Electrical Engineering****West Virginia University** |
| **Coffee Break: 9:30 AM – 10:00 AM (Royal Palm Foyer)** |
| **Parallel Morning Sessions: 10:00 AM – 12:00 PM** |
| **Location: Parlor II & III** | **Location: Salon A & B** |
| **Session K: Bugs and Fault Localization I****Chair: Sahra Sedigh*****Regular: (25 minutes each)***31: On the Effectiveness of the Tarantula Fault Localization Technique for Different Fault Classes. Aritra Bandyopadhyay and Sudipto Ghosh.101: GUI Software Fault Localization Using N-gram Analysis. Zhongxing Yu, Hai Hu, Chenggang Bai, Kai-Yuan Cai1, and W. Eric Wong104: Software-Based Instrumentation for Localization of Faults Caused by Electrostatic Discharge. Pratik Maheshwari, Byong-Su Seol, Jong-Sung Lee, Jae-Deok Lim, Sahra Sedigh, and David Pommerenke.55: Bug Signature Minimization and Fusion. David Lo, Hong Cheng and Xiaoyin Wang.***Short: (20 minutes each)***7: So Much to Learn from One Accident Crash of 737 on 25 February 2009. Herbert Hecht. | **Session L: Security and Privacy****Chair: Bojan Cukic*****Regular: (30 minutes each)***42: Effects of user habituation in keystroke dynamics on password security policy. Zahid Syed, Sean Banerjee, Qi Cheng, and Bojan Cukic.66: Formal Analysis of the DNS Bandwidth Amplification Attack and its Countermeasures Using Probabilistic Model Checking. Tushar Deshpande, Panagiotis Katsaros, Stylianos Basagiannis and Scott Smolka.18: Transforming Privacy Policies to Auditing Specifications. Debmalya Biswas and Valtteri Niemi.***Short: (20 minutes each)***44: Verification of Interoperability Security Policies By Model Checking. Mazen El Maarabani, Ana Cavalli, Iksoon Hwang and Fatiha Zaidi. |
| **Conference Closing** |