

12:45-14:00: Lunch at Conference Hotel Restaurant

14:00-15:30: Session VI: Distributed Trust Management [Room Prescott]

- Chair: Elisa Bertino, Purdue University, USA
- User Behavior Identification for Trust Management in Pervasive Computing Systems Zhaoyu Liu and Dichao Peng (University of North Carolina at Charlotte, USA)
 - Economic-inspired Truthful Reputation Feedback Mechanism in P2P Networks Yufeng Wang (Nanjing University of Posts and Telecommunication, China), Yoshiaki Hori and Kouichi Sakurai (Kyushu University, Japan)
 - Design and Simulation of Trust Management Techniques for a Coalition Data Sharing Environment Srinivasan Iyer and Bhavani Thuraisingham (The University of Texas at Dallas, USA)

15:30-16:00: Coffee Break

16:00-17:30: Session VII: Service-Oriented Architecture [Room Prescott]

- Chair: Baowen Xu, Southeast University, China
- SOLj: A Domain-specific Language (DSL) for Secure Service-based Systems Ramesh Bharadwaj (Naval Research Laboratory, USA) and Supratik Mukhopadhyay (Utah State University, USA)
 - Process Specification and Modeling Language for Service-Oriented Software Development W. T. Tsai, Xiao Wei, Zhibin Cao (Arizona State University USA) Raymond Paul (DoD, USA), Yinong Chen and Jingjing Xu (Arizona State University, USA)
 - Requirement Driven Agent Collaboration based on Functional Ontology and AMD Liwei Zheng (Academy of Mathematics and System Science, Institute of Computing Technology, China) and Zhi Jin (Chinese Academy of Sciences, China)

18:30: Banquet [Room Phoenix]

Friday, March 23

8:15-09:15: Keynote Session 4 [Joint session with ISADS 2007] [Room Phoenix]

- Chair: Radu Popescu-Zeletin, FOKUS and Technical University of Berlin, Germany
- Quality Assurance for Autonomous Systems – A Review of Model-Based Methods Ina Schieferdecker, Director, Competence Center Modeling and Testing for System and Service Solutions, Fraunhofer FOKUS, and Professor of Electrical Engineering and Computer Science, Technical University Berlin, Germany

9:15-09:45: Coffee Break

9:45-11:15: Session VIII: Web Services [Room Prescott]

- Chair: Supratik Mukhopadhyay, Utah State University, USA
- A Distributed ePedigree Architecture Dijiang Huang, Mayank Verma, Archana Ramachandran and Zhibin Zhou (Arizona State University)
 - Towards Competitive Web Service Market Shuxing Cheng, Carl K. Chang, Liang-Jie Zhang and Tae-Hyung Kim (Iowa State University, USA)
 - Task Decomposition for Communication Computation Overlap to Reengineer a Web-Based System Jian Kang, Hong Zhou and Hongji Yang (De Montfort University, UK)

11:15-12:45: Session IX: Panel: Future Trends of Distributed Computing Systems [Room Prescott]

- Chair: Stephen S. Yau, Arizona State University, USA
- Panelists:
- Zhi Jin, Chinese Academy of Science, China
 - Radu Popescu-Zeletin, FOKUS and Technical University of Berlin, Germany
 - Bhavani Thuraisingham, University of Texas at Dallas, USA

12:45-2:00: Lunch at Conference Hotel Restaurant

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Kinji Mori, Tokyo Institute of Technology, Japan
Radu Popescu-Zeletin, FOKUS - Fraunhofer Institute and Technical University of Berlin, Germany

ISADS & FTDCS 2007 Technical Program Overview			
3/20/2007			
18:00 – 19:30	Registration		
3/21/2007	Room Phoenix	Room Tucson	Room Prescott
07:30 - 19:00	Registration		
08:15 - 08:30	Opening Remarks		
08:30 - 8:45	Kanai Award Presentation		
08:45 - 09:30	ISADS & FTDCS Joint Session Keynote Address 1: Larry Smarr OptIPuter-A High Performance SOA LambdaGrid Enabling Scientific Applications		
09:30 - 10:00	Coffee Break		
10:30 - 12:00	ISADS Session 1	AHSP Session 1	FTDCS Session I
12:00 - 13:30	Lunch at Conference Hotel Restaurant		
13:30 - 14:30	ISADS & FTDCS Joint Session Keynote Address 2: Elisa Bertino A Service-oriented Approach to Security - Concepts and Issues		
14:30 - 15:00	Coffee Break		
15:00 - 16:30	FTDCS Session II	AHSP Session 2	ISADS Session 2
16:30 - 18:00	FTDCS Session III	AHSP Session 3	ISADS Session 3
18:30	Reception		
3/22/2007	Room Phoenix	Room Tucson	Room Prescott
08:00 - 19:00	Registration		
08:15 - 09:15	ISADS & FTDCS Joint Session Keynote Address 3: Yoshinobu Tonomura Environment of Intellect: What we need to think about for the future		
09:15 - 09:45	Coffee Break		
09:45 - 11:15	ISADS Session 4	ISADS Session 5	FTDCS Session IV
11:15 - 12:45	ISADS Session 6	ISADS Session 7	FTDCS Session V
12:45 - 14:00	Lunch at Conference Hotel Restaurant		
14:00 - 15:30	ISADS Session 8	ISADS Session 9	FTDCS Session VI
15:30 - 16:00	Coffee Break		
16:00 - 17:30	ISADS Session 10	ISADS Session 11	FTDCS Session VII
18:30	Banquet		
3/23/2007	Room Phoenix	Room Tucson	Room Prescott
08:00 - 15:00	Registration		
08:15 - 09:15	ISADS & FTDCS Joint Session Keynote Address 4: Ina Schieferdecker Quality Assurance for Autonomous Systems - A Review of Model-Based Methods		
09:15 - 09:45	Coffee Break		
09:45 - 11:15	ISADS Session 12	ISADS Session 13	FTDCS Session VIII
11:15 - 12:45	ISADS Session 14	ISADS Session 15	FTDCS Session IX Panel
12:45 - 14:00	Lunch at Conference Hotel Restaurant		
14:00 - 16:00	ISADS Session 16	ISADS Session 17	ISADS Session 18
16:00 - 16:30	Coffee Break		
16:30 - 18:00	ISADS Session 19 Panel		

Eighth International Symposium on



Autonomous Decentralized Systems ISADS 2007

- Sponsored by
- IEEE Computer Society
 - The Institute of Electronics, Information and Communication Engineers, Japan
 - Information Processing Society of Japan
 - The Society of Instrument and Control Engineers of Japan



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March 21-23, 2007, Sedona, Arizona, U.S.A.

Wednesday, March 21

8:15 - 9:30 Opening Session

[Joint session with FTDCS 2007]

[Room Phoenix]

- Opening Remarks Kane Kim, ISADS 2007 General Chair
Stephen S. Yau, FTDCS 2007 General Chair and FTDCS Steering Committee Chair
Kinji Mori, ISADS Steering Committee Chair
Kanai Award 2007 Presentation
Michael R. Williams, IEEE Computer Society President
- Keynote Address 1: OptIPuter - A High Performance SOA LambdaGrid Enabling Scientific Applications
Larry Smarr, Director, California Institute for Telecommunications and Information Technology, and Professor of Computer Science and Engineering, University of California San Diego, USA

09:30-10:00 Coffee Break

10:30 - 12:00 Session 1: Service Orientation: Service Composition/Collaboration [Room Phoenix]

- Chair: Eckhard Moeller, Fraunhofer FOKUS, Germany
- RobustBPEL2: Transparent Automization in Business Processes through Dynamic Proxies Onyeka Ezenwoye and S. Masoud Sadjadi (Florida International University, USA)
 - Towards Distributed Web Service Composition Snehit Prabhu (IBM Software Labs, USA)
 - Collaboration Policy Generation in Dynamic Collaborative SOA W.T. Tsai, Qian Huang, Bingnan Xiao, Yinong Chen, and Xinyu Zhou (Arizona State University, USA)

12:00-13:00 Lunch at Conference Hotel Restaurant

13:30 - 14:30 Keynote Address 2

[Joint session with FTDCS 2007]

[Room Phoenix]

- Chair: Stephen S. Yau, Arizona State University, USA
- A Service-oriented Approach to Security - Concepts and Issues
Elisa Bertino, Research Director, Center for Education and Research in Information Assurance and Security, and Professor of Computer Sciences, Purdue University, USA

14:30-15:00 Coffee Break

15:00 - 16:30 Session 2: Testing and On-line Validation [Room Prescott]

- Chair: Ina Schieferdecker, Fraunhofer FOKUS, Germany
- Ontology-Based Test Case Generation for Testing Web Services
Yongbo Wang, Xiaoying Bai, Juanzi Li, and Ruobo Huang (Tsinghua University, China)
 - Towards Self-Testing in Autonomic Computing Systems Tariq King, Djuradj Babich, Jonatan Alava, Ronald Stevens, and Peter Clarke (Florida International University, USA)
 - Global Constraint Checking at Run-Time
Christian Hein and Tom Ritter (Fraunhofer FOKUS, Germany)

16:30 - 18:00 Session 3: Transportation [Room Prescott]

- Chair: Isao Kaji, Miyagi University, Japan
- Application of Assurance Technology for Railway Signaling System
Masayuki Matsumoto and Keisuke Bekki (East Japan Railway Co., Japan)
 - Novel Railway Signal Control System Based on the Internet Technology and Its Distributed Control Architecture
Yamato Fukuta, Gen Kogure, Takashi Kunifuji, Hiroyuki Sugahara, Reiji Ishima, and Masayuki Matsumoto (East Japan Railway Co., Japan)
 - The Modeling and Analysis of Data Communication System (DCS) in Communication Based Train Control (CBTC) with Colored Petri Nets
Tianhua Xu and Tao Tang (Beijing Jiaotong University, China)

18:30 Reception [Room Phoenix]

Thursday, March 22

8:15 - 9:15 Keynote Address 3 [Joint session with FTDCS 2007] [Room Phoenix] Chair: Kinji Mori, Tokyo Institute of Technology, Japan

- Environment of Intellect: 7 Issues We Need to Think About for the Future
Yoshinobu Tonomura, Director, NTT Communication Science Laboratories, Japan

09:15 - 09:45 Coffee Break

09:45 - 11:15 Session 4: Service Orientation: Architecture, Infrastructure [Room Phoenix]

- Chair: Christian Räck, Fraunhofer FOKUS, Germany
- The Semantic Data Space for Loosely Coupled Service Provisioning
David Linner, Ilja Radusch, Stephan Steglich, and Carsten Jacob (Technische Universität Berlin, Germany)
 - A New SOA Data-Provenance Framework
Wei-Tek Tsai, Xiao Wei, Dawei Zhang, Ray Paul (DoD, USA), Yinong Chen, and Jen-Yao Chung (Arizona State University, USA)
 - Should the Grid Middleware Look to Self-managing Capabilities
Ramon Nou, Ferran Julià, and Jordi Torres (Barcelona Supercomputing Center, Spain)

09:45 - 11:15 Session 5: Sensor and Ad Hoc Networks (1) [Room Tucson]

- Chair: Xavier Défago, JAIST, Japan
- Mobility Support for Users in Wireless Sensor Networks
Sang-Sik Kim and Ae-Soon Park (Electronics and Telecommunications Research Institute, Korea)
 - A Hybrid Routing with Location Information for Mobile Ad Hoc Networks
Hiroshi Nakagawa, Tomoyuki Ohta, Kenji Ishida, and Yoshiaki Kakuda (Hiroshima City University, Japan)
 - Mobile Phone Based Ad Hoc Network Using Built in Bluetooth for Ubiquitous Life
Hitomi Murakami, Atsushi Ito, Yu Watanabe, and Takao Yabe (KDDI Corporation, Japan)

11:15 - 12:45 Session 6: Service Orientation: Discovery, Access, Application [Room Phoenix]

- Chair: Klaus-Peter Eckert, Fraunhofer FOKUS, Germany
- Functionality-Based Service Matchmaking for Service-Oriented Architecture
Stephen Yau and Junwei Liu (Arizona State University, USA)
 - Change Management in Semantic Business Processes Modeling
Uttam Kumar Tripathi and Knut Hinkelmann (IITK, India)
 - Autonomous Correlated Services Access for High Response in Integrated Faded Information Field Systems
Xiaodong Lu, Kinji Mori, and Yongdong Tan (Tokyo Institute of Technology, Japan)

11:15 - 12:45 Session 7: Sensor and Ad Hoc Networks (2) [Room Tucson]

- Chair: Junichi Funasaka, Hiroshima City University, Japan
- An On-demand Address Allocation Scheme for Query Based Sensor Networks
Weiwei Fang, Yi Liu, Jin Wu, and Depei Qian (Xian Jiaotong University, China)
 - An Efficient On-Demand Hierarchical Routing Protocol Based on Autonomous Clustering for Mobile Ad Hoc Networks
Ryota Oda, Tomoyuki Ohta, and Yoshiaki Kakuda (Hiroshima City University, Japan)
 - Locality-Preserving Distributed Path Reservation Protocol for Asynchronous Cooperative Mobile Robots
Rami Yared, Julien Cartigny, Xavier Défago, and Matthias Wiesmann (JAIST, Japan)
 - Optimizing Query Injection from Mobile Objects to Sensor Networks
Shourui Tian and Sol M. Shatz (University of Illinois at Chicago, USA)

12:45 - 13:45 Lunch at Conference Hotel Restaurant

ISADS 2007 Technical Program

14:00 - 15:30 Session 8: Assurance and Fault-Tolerance [Room Phoenix]

Chair: **Atsushi Ito**, KDDI Co., Japan

- Research of Reliability Technology in Heterogeneous Autonomous Decentralized Assurance Systems
Akio Shiibashi, Takashi Kuroda, Motoharu Yamana, and Kinji Mori (East Japan Railway Co., Japan)
- Distribution Algorithm for Newly Allocated Update Allowance (AV) in the Autonomous Decentralized Database System (ADDS)
Isao Kaji (Miyagi University, Japan)
- Autonomous Fault Recovery Technology for Continuous Service in Distributed VOD System
Yuta Nakatogawa, Shoichi Murakami, Miho Kanda, Kinji Mori, Ryuji Takanuki, and Yasushi Kuba (Tokyo Institute of Technology, Japan)

14:00 - 15:30 Session 9: Agent Systems and Networking [Room Tucson]

Chair: **Yao-Nan Lien**, NCCU, Taiwan

- Autonomous Real-Time Navigation for Service Level Agreement in Distributed Information Service System
Khalid Mahmood, Satoshi Niki, Yuuki Nakahara, Xiaodong Lu, Ivan Luque, and Kinji Mori (Tokyo Institute of Technology, Japan)
- SAGE-LITE: An Architecture and Implementation of Light Weight Multi-agent System
Sana Khalique, Sana Farooq, Hafiz Farooq Ahmad, Hiroki Suguri, and Arshad Ali (NUST Institute of Information Technology (NIIT), Pakistan)
- An Approach of End-to-End DiffServ/MPLS QoS Context Transfer in HMIPv6 Networks
Chuda Liu, Yi Liu, Depei Qian, and Mingxiu Li (Xian Jiaotong University, China)

15:30 - 16:00 Coffee Break

16:00 - 17:30 Session 10: Resource Abstraction and Management [Room Phoenix]

Chair: **Hafiz Farooq Ahmad**, NUST Institute of Information Technology (NIIT), Pakistan

- Autonomous Decentralized Load Tracking Systems and Evaluation Criteria for Response and Stability
Tetsuya Masuishi, Koichi Shibata, Yasuyuki Oki, and Kinji Mori (Hitachi, Japan)
- Merging CBR and Neural Networks for SLA-Based Radio Resource Management for QoS Sensitive Cellular Networks
Muhammad Umer Khan, Mumammad Qaisar Ch, Hafiz Farooq Ahmad, Liaqut Ali, Arshad Ali, and Hiroki Suguri (NUST Institute of Information Technology (NIIT), Pakistan)
- Virtual Device Composition
Mario Schuster, Alexander Domene, Raju Vaidya, Stefan Arbanowski, Su Myeon Kim, Jin Wook Lee, and Hun Lim (Fraunhofer FOKUS, Germany)

16:00 - 17:30 Session 11: Security, Safety, and Trust [Room Tucson]

Chair: **Xiaoying Bai**, Tsinghua University, China

- Mass Mailing Worm Detection by Means of Situation Aware DNS
Nikolaos Chatzis (Fraunhofer FOKUS, Germany)
- Rule Checking within the Model-Based Development of Safety-Critical Systems and Embedded Automotive Software
Tibor Farkas and Daniel Grund (FOKUS - Fraunhofer Institute, Germany)
- Trust for Vehicular Applications
Matthias Gerlach (Fraunhofer FOKUS, Germany)

18:30 Banquet [Room Phoenix]

Friday, March 23

8:15 - 9:15 Keynote Address 4 [Joint session with FTDCS 2007] [Room Phoenix]

Chair: **Radu Popescu-Zeletin**, FOKUS and Tech. Univ. of Berlin, Germany

- Quality Assurance for Autonomous Systems – A Review of Model-Based Methods
Ina Schieferdecker, Director, Competence Center Modeling and Testing for System and Service Solutions, Fraunhofer FOKUS, and Professor of Electrical Engineering and Computer Science, Technical University Berlin, Germany

09:15-09:45: Coffee Break

09:45 - 11:15 Session 12: Special Session on P2P Networking and Availability [Room Phoenix]

Chair: **Hafiz Farooq Ahmad**, NUST NIIT, Pakistan

- Dynamic Clustering Model for High Service Availability
Sung Hocheol, Han Sunyong, Choi Byounguk, Kim Heemin, Song Jungwook, Ang Chee-Wei, Cheng Wang-Cho, and Wong Kim-Sing (Konkuk University, Korea)

- A UDP Based Protocol for Distributed P2P File Sharing
Yao-Nan Lien and Hong-Qi Xu (NCCU, Taiwan)
- Context-Based Service Discovery for Enhanced Learning Objects in P2P Networks
Qianhui Liang and Zhaohui Wu (SIS SMU, Singapore)

09:45 - 11:15 Session 13: Special Session on Ad Hoc Networks in Automotive Telematics Applications (1) [Room Tucson]

Chair: **Tao Zhang**, Telcordia Technologies Inc, USA

- An Approach to Positioning Road-Users in a Telematics Network
Mats Rydström, Erik Ström, Arne Svensson, and Luca Reggiani (Chalmers University of Technology, Sweden)
- Enforcing Privacy Using Symmetric Random Key-Set in Vehicular Networks
Yong Xi, Kewei Sha, Weisong Shi, Loren Schwiebert, and Tao Zhang (Wayne State University, USA)
- Mobile Service Discovery Protocol (MSDP) for Mobile Ad-Hoc Networks
Jui-Chi Liang, Jyh-Cheng Chen, and Tao Zhang (Telcordia Technologies Inc, USA)

11:15 - 12:45 Session 14: Special Session on ADS Software Engineering [Room Phoenix]

Chair: **Joseph Urban**, Arizona State University, USA

- An Approach to Deriving Reactive Agent Designs from Extensions to the Descartes Specification Language
Michael Medina and Joseph Urban (Arizona State University, USA)
- A TTF-Based Programming Model and a Support Kernel Running on a Communicating Sensor Platform
K. H. (Kane) Kim, Keizo Fujiwara, Moon-Cheol Kim, Liangchen Zheng, Kenichi Watanabe, and Makoto Takizawa (University of California at Irvine, USA)
- Towards Making NekoStat a Proper Measurement Tool for the Validation of Distributed Systems
Andrea Bondavalli, Andrea Ceccarelli, Lorenzo Falai, and Michele Vadursi (University of Florence Italy)

11:15 - 12:45 Session 15: Special Session on Ad Hoc Networks in Automotive Telematics Applications (2) [Room Tucson]

Chair: **Tao Zhang**, Telcordia Technologies Inc, USA

- Piggybacked Acknowledgement for Reception Assessment in a Pervasive Broadcasting System
Daniel Jiang, Miro Bogdanovic, and Luca Delgrossi (DaimlerChrysler REDNA Inc, USA)
- DiffServ QoS and OLSR MANET Outdoor Demonstration
Isil Sebüktekin, Brandon Yoon, Byungsook Kim, Ashok Ranade, Taek Jin Kwon, Marcus Pang, William Stephens, Michael Bereschinsky, Charles Graff, Larry Muzzelo, Michael Acriche, Aristedes Staikos, Ben Foresta, and Dennis Chen (Telcordia Technologies Inc, USA)

12:45-13:45: Lunch at Conference Hotel Restaurant

14:00 - 16:00 Session 16: Multimedia Content and Service Provisioning [Room Phoenix]

Chair: **Masaki Aida**, Tokyo Metropolitan University, Japan

- Self-Organizing Pervasive Online Communities
Stefan Foell, Philippe Boessling, David Linner, Ilja Radusch, and Stephan Steglich (Technische University Berlin, Germany)
- MCDN: Multimedia Content Discovery and Delivery
Joachim Sokol and Klaus-Peter Eckert (Fraunhofer FOKUS, Germany)
- Web2Peer: A Peer-to-Peer Infrastructure for Publishing/Locating/Replicating Web Pages on Internet
Heverson Borba Ribeiro, Lau Cheuk Lung, Altair Olivo Santin, and Neander Larsen Brisola (PUCPR, Brazil)
- Next Generation IPTV Services for an Extended IMS Architecture
Oliver Friedrich, A. Al-Hezmi, Stefan Arbanowski, and Thomas Magedanz

14:00 - 16:00 Session 17: Community and Context-Awareness [Room Tucson]

Chair: **Yoshiaki Kakuda**, Hiroshima City University, Japan

- Autonomous Community Integration and Division Technology for High Response Service
Kotaro Hama, Yuji Horikoshi, Hiroyuki Endo, Benjamin Kloester, and Xiaodong Lu (Tokyo Institute of Technology, Japan)
- A Generic Multipurpose Recommender System for Contextual Recommendations
Christian Räck, Stefan Arbanowski, and Stephan Steglich (Fraunhofer FOKUS, Germany)
- An Asynchronous Messaging Platform for Development of Context-aware Services
Taro Nakao and Shigetoshi Yokoyama (NTT DATA, Japan)
- A Decision-Theoretic Planner with Dynamic Component Reconfiguration for Distributed Real-Time Applications
John Kinnebrew, Ankit Gupta, Nishanth Shankaran, Gautam Biswas, and Douglas Schmidt (Vanderbilt University, USA)

ISADS 2007 Technical Program

14:00 - 16:00 Session 18: Algorithm and Control [Room Prescott]

Chair: **Dijiang Huang**, Arizona State University, USA

- A Hybrid GA-BP Model for Bankruptcy Prediction
Ying Sai, Chenjian Zhong, and Lehong Qu (Shandong University of Finance, China)
- Decomposition of Timed Petri Nets for Solving Scheduling Problems with Multiple Entities
Tatsushi Nishi (Osaka University, Japan)
- Developing Autonomic Feedback Control for Heterogeneous Systems Using Cascaded Controllers
Wael Hosny Fouad Aly and Hanan Lutfiyya (University of Western Ontario, Canada)

The Second International Workshop on Ad Hoc, Sensor and P2P Networks (AHSP2007) Wednesday, March 21, 2007

10:30 - 12:00 AHSP Session 1 [Room Tucson]

Chair: **Yoshiaki Kakuda**, Hiroshima City University, Japan

10:30 - 11:30 Keynote Speech

- Recent Developments in Wide Area Ubiquitous Network Research
Hiroshi Saito and Koichi Takasugi (NTT, Japan)
- 11:30 - 12:00 Topology Control
- S-XTC: A Signal-Strength Based Topology Control Algorithm for Sensor Networks
Matthias Dyer, Jan Beutel and Lothar Thiele (ETH Zurich, Switzerland)

12:00-13:00 Lunch at Conference Hotel Restaurant

14:30-15:00 Coffee Break

15:00 - 16:30 AHSP Session 2: Routing [Room Tucson]

Chair: **Tomoyuki Ohta**, Hiroshima City University, Japan

- Unidirectional Ad Hoc Routing Protocol with Area-Controlled Flooding Using Overhead Neighbor Node Information
Hiroaki Morino, Takumi Miyoshi and Masakatsu Ogawa (Shibaura Institute of Technology, Japan)
- An Autonomous Method for Aggregating and Repairing Paths in Sensor Networks
Shinji Inoue, Noriyuki Masuda and Yoshiaki Kakuda (Hiroshima City University, Japan)

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Kane Kim, University of California at Irvine, USA

Program Co-Chairs

Yoshiaki Kakuda, Hiroshima City University, Japan
Eckhard Moeller, FOKUS - Fraunhofer Institute, Germany
W. T. Tsai, Arizona State University, USA

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Roger Kilian-Kehr, SAP, Germany
Jin-Hyung Kim, KAIST, Korea
Moon H. Kim, Konkuk Univ. , Korea
Sunggu Lee, Postech, Korea
Carlos Perez Leguizamo, Mexico Bank, Mexico
Xiaodong Lu, Tokyo Institute of Technology, Japan

- Quantitative Performance Modeling and Evaluation for Servo Control Systems Based on F-AHP
Wang Shou-kun, Wang Jun-zheng, and Shen Wei (Beijing Institute of Technology, China)

10:00 - 16:30 Coffee Break

16:30 - 18:00 Panel Session: Is Service-Oriented Architecture Appropriate for Autonomous Decentralized Systems? [Room Phoenix]

Chair: **W. T. Tsai**, Arizona State University, USA

- Panel members:
- Yoshiaki Kakuda, Hiroshima City University, Japan
 - Eckhard Moeller, Fraunhofer FOKUS, Germany
 - Kinji Mori, Tokyo Institute of Technology, Japan

- Improving the Accuracy of Passive Duplicate Address Detection Algorithms over MANET On-demand Routing Protocols
Dongkyun Kim, Hong-Jong Jeong, Sutaek Oh and Juan-Carlos Cano (Kyungpook National University, Korea)

16:30 - 18:00 AHSP Session 3: Security, Survivability, Performance Evaluation [Room Tucson]

Chair: **Hiroaki Morino**, Shibaura Institute of Technology, Japan

- Preventing Resource Exhaustion Attacks in Ad Hoc Networks
Masao Tanabe and Masaki Aida (NTT, Japan)
- Longer Network Lifetime when Using Energy Efficient GSP for Wireless Sensor Networks
Debdhanit Yupho, Maria Calle and Joseph Kabara (University of Pittsburgh, USA)
- Parallel Downloading Method using HTTP over UDP for High Loss Rate and Delay Networks
Junichi Funasaka, Yusuke Takemoto and Kenji Ishida (Hiroshima City University, Japan)
- A Self-organizing Communication Mechanism using Traveling Wave Phenomena for Wireless Sensor Networks
Yoshiaki Taniguchi, Naoki Wakamiya and Masayuki Murata (Osaka University, Japan)

FTDCS 2007 Technical Program

11th IEEE International Workshop on Future Trends of Distributed Computing Systems

March 21-23, 2007, Sedona, Arizona, U.S.A.

Sponsor: **IEEE Computer Society**



Wednesday, March 21, 2007

8:15 - 9:30 Opening Session [Joint session with ISADS 2007] [Room Phoenix]

- Opening Remarks
Kane Kim, ISADS 2007 General Chair
Stephen S. Yau, FTDCS 2007 General Chair and FTDCS Steering Committee Chair
Kinji Mori, ISADS Steering Committee Chair
Kanai Award 2007 Presentation
Michael R. Williams, IEEE Computer Society President
- Keynote Address 1: OptIPuter - A High Performance SOA LambdaGrid Enabling Scientific Applications
Larry Smarr, Director, California Institute for Telecommunications and Information Technology, and Professor of Computer Science and Engineering, University of California San Diego, USA

9:30-10:00: Coffee Break

10:30-12:00: Session I: Workflow and Multi-agent Systems [Room Prescott]

Chair: **Makoto Takizawa**, Tokyo Denki University, Japan

- A Web Service-Enabled Distributed Workflow System for Scientific Data Processing
Rajesh Kalyanam, Lan Zhao and Taезoon Park (Purdue University, USA) and Sebastien Goasguen (Clemson University, USA)
- Reaching Semantic Interoperability through Semantic Association of Domain Standards
Hung-Ju. Chu and Y. C. Chow (University of Florida, USA)
- Agent-based Design of Load Balancing System for RFID Middlewares
Jian Feng Cui and Heung Seok Chae (Pusan National University, Korea)

12:00-13:00: Lunch at Conference Hotel Restaurant

13:30-14:30: Keynote Session 2

[Joint session with ISADS 2007] [Room Phoenix]

Chair: **Stephen S. Yau**, Arizona State University, USA

- A Service-oriented Approach to Security - Concepts and Issues
Elisa Bertino, Research Director, Center for Education and Research in Information Assurance and Security, and Professor of Computer Sciences, Purdue University, USA

14:30-15:00: Coffee Break

15:00-16:30: Session II: Security in Distributed Systems [Room Phoenix]

Chair: **Alex Z. Liu**, University of North Carolina at Charlotte, USA

- An Information Model for Security Integration
Hassan Rasheed and Randy Y. C. Chow (University of Florida, USA)
- Access Control Strategies for Virtualized Environments in Grid Computing Systems
Anna Cinzia Squicciarini and Elisa Bertino (Purdue University, USA) and Sebastien Goasguen (Clemson University, USA)
- Concurrency Control Based on Subject and Purpose Concepts
Tomoya Enokido (Rissho University, Japan), Naohiro Hayashibara and Makoto Takizawa (Tokyo Denki University, Japan)

FTDCS 2007

<http://dpse.eas.asu.edu/ftdcs2007/>

16:30-18:00: Session III: Software Engineering [Room Phoenix]

Chair: **Zhi Jin**, Chinese Academy of Sciences, China

- A Software Cybernetics Approach to Deploying and Scheduling Workflows in Service-based Systems
Stephen S. Yau, Dazhi Huang, Luping Zhu (Arizona State University USA) and Kai-Yuan Cai (Beijing University of Aeronautics and Astronautics, China)
- Thread-Sensitive Pointer Analysis for Inter-Thread Dataflow Detection
Ju Qian, and Baowen Xu (Southeast University, China)
- Constructing a BPM Environment with BPMN
Ching-Hong Tsai, How-Jen Luo and Feng-Jian Wang (National Chiao-Tung University, Taiwan)

18:30: Reception [Room Phoenix]

Thursday, March 22

8:15-09:15: Keynote Session 3 [Joint session with ISADS 2007] [Room Phoenix]

Chair: **Kinji Mori**, Tokyo Institute of Technology, Japan

- Environment of Intellect: 7 Issues We Need to Think About for the Future*
Yoshinobu Tonomura, Director, NTT Communication Science Laboratories, Japan

9:15-09:45: Coffee Break

9:45-11:15: Session IV: Autonomic and Adaptive Systems [Room Prescott]

Chair: **Murat Demirbas**, State University of New York at Buffalo, USA

- Beyond the Future Internet - Requirements of Autonomic Networking Architectures to Address Long Term Future Networking Challenges
M. Seikinnen, V. Goebe, T. Plagemann and K.-A. Skjevik (University of Oslo, Norway), M. Banfield and I. Brusci (Telekom Austria AG, Austria)
- Conflict Resolution Model Based on Weight in Situation Aware Collaboration System
Heeseo Chae, Tae Yon Kim, Dong-hyum Lee and Hoh Peter In (Korea University, Korea)
- Exploring Adaptive Data Centers through Cooperative Symbiotic Networking
Paskorn Champrasert and Junichi Suzuki (University of Massachusetts, USA)

11:15-12:45: Session V: Wireless and Mobile Ad Hoc Networks [Room Prescott]

Chair: **Yoshiaki Kakuda**, Hiroshima City University, Japan

- A Transactional Framework for Programming Wireless Sensor/Actor Networks
Murat Demirbas (State University of New York at Buffalo, USA)
- WTMR-A New Fault Tolerance Technique for Wireless and Mobile Computing Systems
Sarmistha Neogy (Jadavpur University, India)
- Using Continuous Queries for Event Filtering and Routing in Sparse MANETs
Katrine Stemland Skjelsvik, Jarle Søberg, Vera Goebel and Thomas Plageman (University of Oslo, Norway)