

2012 Fifth IEEE International Conference on Service-Oriented Computing and Applications

(SOCA 2012)

**Taipei, Taiwan
17-19 December 2012**



**IEEE Catalog Number: CFP1239C-PRT
ISBN: 978-1-4673-4773-0**

Table of Contents

SOCA Sessions

Session 1: Service-Oriented Applications

- *Flexible Information Design for Business Process Visualizations* ...
Alexander Nowak(University of Stuttgart), Dimka Karastoyanova(University of Stuttgart), Frank Leymann(University of Stuttgart), Andrej Rapoport(University of Stuttgart), David Schumm(University of Stuttgart)
- *Application-Level Performance Monitoring of Cloud Services Based on the Complex Event Processing Paradigm* ...
Philipp Leitner(Vienna University of Technology), Christian Inzinger(Vienna University of Technology), Waldemar Hummer(Vienna University of Technology), Benjamin Satzger(Vienna University of Technology), Schahram Dustdar(TU Wien)
- *Adaptive Load Shedding via Fuzzy Control in Data Stream Management Systems* ...
Can Basaran(Daegu Gyeongbuk Institute of Science & Technology), Kyoung-Don Kag(Binghamton University), Yan Zhou(Cisco Systems), Mehmet Hadi Suzer(Harran University)
- *Object Identity Set Algebra for Object-Oriented Database Systems* ...
Shugang Wang(China Lottery Online)

Session 2: Intelligent Service Management

- *Spectrum-based Fault Diagnosis for Service-Oriented Software Systems* ...
Cuiting Chen(Delft University of Technology), Hans-Gerhard Gross(Delft University of Technology), Andy Zaidman(Delft University of Technology)
- *A Module-based Approach for Structural Matching of Process Models* ...
Hamida Lagraa Seba(University Lyon1), Sonia Abbas(University Lyon1)
- *Pattern-based Process Discovery* ...
Robin Fischer(Karlsruhe Institute of Technology (KIT)), Erik Wittern(Karlsruhe Institute of Technology (KIT)), Julian Schneider(Karlsruhe Institute of Technology (KIT)), Stefan Tai(Karlsruhe Institute of Technology (KIT))

Session 3: Dynamic Service Composition

- *A Software Framework for Enabling Smart Services* ''
Jae Yoo Lee(Soongsil University), Moon Kwon Kim(Soongsil University), Hyun Jung La(Soongsil University), Soo Dong Kim (Soongsil University)
- *A Rule-based Approach for Dynamic Adaptation of Service Flow* ''''
Chi-Ming Ma(Dahan Institute of Technology), Tai-Jung Wu(Taipei Municipal Da-An Vocational High School), Shioh-Yang Wu(National Dong Hwa University)
- *Risk in Modern IT Service Landscapes: Towards a Dynamic Model* ''
Nico Rödder(FZI Forschungszentrum Informatik), Rico Knapper(FZI Forschungszentrum Informatik), Jochen Martin(FZI Forschungszentrum Informatik)
- *On Evolving Partitioned Web Service Orchestrations* ''
Walid Fdhila(University of Vienna), Stefanie Rinderle-Ma(University of Vienna), Aymen Baouab(University of Lorraine), Olivier Perrin(University of Lorraine), Claude Godart(University of Lorraine)

Session 4: Cloud and Mobile-based Service-Oriented Services

- *Cost-driven Service Provisioning in Hybrid Clouds* ''
Mathias Björkqvist(IBM Research - Zurich), Lydia Y. Chen(IBM Research Zurich Lab), Walter Binder(University of Lugano)
- *Extracting RESTful Services from Web Applications* ''
Bipin Upadhyaya(Queen's University), Foutse Khomh(Queen's University), Ying Zou(Queen's University)
- *WS-Agreement based Service Negotiation in a Heterogeneous Service Environment* ''
Ralph Vigne(University of Vienna, Faculty of Computer Science), Juregen Mangler(University of Vienna), Erich Schikuta(University of Vienna), Stefanie Rinderle-Ma(University of Vienna)
- *Selecting the right mobile app paradigms* ''
Ngu Phuc Huy(Norwegian University of Science and Technology), Do van Thanh(Telenor and Norwegian University of Science & Technology)

Session 5: Service Composition with QoS

- *A Novel Two-Phase Approach for QoS-Aware Service Composition Based on History Records* ''
Zhu Yong(Southeast University), Li Wei(Southeast University), Luo Junzhou(Southeast University), Zheng Xiao(Southeast University, and Anhui University of Technology)

- *Revenue Maximization with Quality Assurance for Composite Web Services* ''
Daniël Worm(TNO), Miroslav Živković(TNO), Hans van den Berg(TNO), Rob van der Mei(CWI)
- *Real-time Service Process Scheduling with Intermediate Deadline Overrun Management* ''
Weiran Nie(University of California, Irvine), Sen Zhou(University of California, Irvine), Kwei- Jay Lin(University of California, Irvine)
- *Composing Trustworthy Context-dependent Services* ''
Naseem Ibrahim(Albany State University)

Session 6: Cyber-Physical and M2M Systems

- *Eventlets: Components for the Integration of Event Streams with SOA* ''
Stefan Appel(TU Darmstadt), Sebastian Frischbier(TU Darmstadt), Tobias Freudenreich(TU Darmstadt), Alejandro Buchmann(TU Darmstadt)
- *M2M Platform-as-a-Service for Sustainability Governance* ''
Hong-Linh Truong(Vienna University of Technology), Schahram Dustdar(Vienna University of Technology)
- *A Fuzzy Approach for Ranking Adaptation Strategies in CLAM* ''
Asli Zengin(Fondazione Bruno Kessler), S. Hossein Siadat(Ulsan National Institute of Science and Technology), Annapaola Marconi(Fondazione Bruno Kessler), Barbara Pernici(Politecnico di Milano)
- *Utilizing Descriptive Documents for Adaptive and Reconfigurable M2M Systems* ''
I-Lung Tsai(National Taiwan University), Wan-Rong Jih(National Taiwan University), Yen-Ling Kuo (National Taiwan University), Jane Yung-jen Hsu(National Taiwan University)

Session 7: Security and Privacy for SOA

- *Security Measurement in Service-based Computing Systems* ''
Chunyan Mu(Newcastle University), Wen Zeng(Newcastle University)
- *Security Certification-Aware Service Discovery and Selection* ''
Claudio Agostino Ardagna(University degli Studi di Milano), Marco Anisetti(University degli Studi di Milano), Ernesto Damiani(University degli Studi di Milano), Jonatan Maggesi(University degli Studi di Milano)
- *A Trust Vector Approach to Transaction Context-Aware Trust Evaluation in E-commerce and E-service Environments* ''

Haibin Zhang(Macquarie University), Yan Wang(Macquarie University), Xiuzhen Zhang(RMIT University)

Session 8: Service-Oriented Applications Management

- *A Concept Analysis Approach for Guiding Users in Service Discovery* ''
Bipin Upadhyaya(Queen's University), Ying Zou(Queen's University), Foutse Khomh(Queen's University)
- *Enabling Tenant-Aware Administration and Management for JBI Environments*
Steve Strauch(University of Stuttgart), Vasilios Andrikopoulos(University of Stuttgart), Santiago Gómez Sáez(University of Stuttgart), Frank Leymann(University of Stuttgart), Dominik Muhler(SAP (Schweiz) AG)
- *State Propagation-based Monitoring of Business Transactions* ''
Sebastian Wagner(University of Stuttgart), Christoph Fehling(University of Stuttgart), Dimka Karastoyanova(University of Stuttgart), David Schumm(University of Stuttgart)
- *Push-style WS-Notification System Based On Semantic Preserving* ''
Zhaohang Chai(Beijing University of Posts and Telecommunications), Yang Zhang(Beijing University of Posts and Telecommunications), Junliang Chen(Beijing University of Posts and Telecommunications)

Session 9: Service-Oriented Applications Management

- *A Pattern Language and Repository for Service Network Management* ''
Ulrich Scholten(Karlsruhe Institute of Technology(KIT)), Nelly Schuster(Karlsruhe Institute of Technology (KIT)), Stefan Tai(Karlsruhe Institute of Technology (KIT))
- *BPEL Conformance in Open Source Engines* ''
Jörg Lenhard(University of Bamberg), Simon Harrer(University of Bamberg), Guido Wirtz(Distributed and Mobile Systems Group - University of Bamberg)
- *Service Graph Base: A Unified Graph-based Platform for Representing and Manipulating Service Artifacts* ''
Xi Chen(Southwest Jiaotong University), Angel Lagares Lemos(University of New South Wales), Moshe Chai Barukh(University of New South Wales), Boualem Benatallah(University of New South Wales)

Session 10: Service-Oriented Architecture

- *Service integration via target-transparent mediation* ''

Mila Dalla Preda(University of Bologna), Maurizio Gabrielli(University of Bologna), Claudio Guidi(italianaSoftware srl), Jacopo Mauro(University of Bologna), Fabrizio Montesi(IT University of Copenhagen)

- *Bridging the Heterogeneity of Orchestrations - A Petri Net-based Integration of BPEL and Windows Workflow* ''
Stefan Kolb(University of Bamberg), Jörg Lenhard(University of Bamberg), Guido Wirtz(Distributed and Mobile Systems Group - University of Bamberg)
- *Optimizing Pipe-like Mashup Execution for Improving Resource Utilization* ''
Jingbo Xu(Beihang University), Hailong Sun(Beihang University), Xu Wang(Beihang University), Xudong Liu(Beihang University), Richong Zhang(Beihang University)
- *Performance Evaluation of a Massively Parallel ESB-Oriented Architecture* ''
Ridha BENOSMAN(CNAM), Kamel BARKAOUI(CNAM), Yves ALBRIEUX(CNAM)

SOCA Workshop Sessions

Advanced Program for KASTLES

Session K01: Framework and Foundations

- *Finding Linkage between Sustainability Science and Technologies based on Citation Network Analysis* ''
Katsuhide Fujita (University of Tokyo)
- *Abnormality Detection by Model-based Estimation of Power Consumption*
Chiao-Ching Huang(National Taiwan University), Yi-Ting Tsao(National Taiwan University), Jane Yung-Jen Hsu (National Taiwan University)
- *Innovating Multiagent Algorithms for Smart City: The Overview of our Research Project* ''
Takayuki Ito (Nagoya Institute of Technology), Shantanu Chakraborty (Nagoya Institute of Technology), Ryo Kanamori (Nagoya Institute of Technology), Yadanobu Otsuka (Nagoya Institute of Technology)

Session K02: Platform and Systems

- *A Data Retransmitting Mechanism for Ecological Monitoring System* ''

Yu-Chi Chang(National Taiwan University), Chi-Yang Lee(National Taiwan University), Xiang-Yao Zheng(National Taiwan University), Cheng-Long Chuang(National Taiwan University), Joe-Air Jiang (National Taiwan University)

- *On Implementing a Market-based Agent-mediated Resource Control Framework for Middle-scale Smart Grids: A Preliminary Study* ...
Naoki Fukuta (Shizuka University), Takayuki Ito (Nagoya Institute of Technology)
- *A Self Sustainable Air Quality Monitoring System Using WSN* ...
Chien-Hao Wang(National Taiwan University), Yu-Kai Huang(National Taiwan University), Xiang-Yao Zheng(National Taiwan University), Tzu-Shiang Lin(National Taiwan University), Cheng-Long Chung (National Taiwan University), Joe-Air Jiang (National Taiwan University)

Advanced Program for RITMAN

Session R01: Information and Communication Technology for Disaster Management

- *DR. ION: Disaster Rescue over Information-Oriented Network* ...
Wei-Chun Chung (Academia Sinica), Chi-Jen Wu (Academia Sinica), Chin-Fu Ku (Academia Sinica) , Der-Tsai Lee (Academia Sinica), Jan-Ming Ho (Academia Sinica)
- *Fusing Human Sensor and Physical Sensor Data* ...
Jane Liu (Academia Sinica), Edward Chu (National Yunlin University of Science and Technology), and Pei-hsuan Tsai (National Cheng Kung University)
- *Shadow Phone: Context Aware Device Replication for Disaster Management* ...
Chi-Sheng Daniel Shih (National Taiwan University) and Trang-Khon Trieu (National Taiwan University)
- *Virtual Disaster Management Information Repository and Applications Based on Linked Open Data* ...
Yi-An Lai (Academia Sinica), Yi-Zong Ou (Academia Sinica), Jan Su (Academia Sinica), Sheng-Han Tsai (Academia Sinica), Cheng-Wei Yu (Academia Sinica), Derrick Cheng (University of California, Berkeley)

Advanced Program for IoTIM

Session I01

- *Introduction to Knowledge Coordination Management* "V °
Guangfei Yang, Yanzhong Dang.
- *Software Development Concerns in the Building of Service-Oriented Based Enterprise Systems* "V °
Chia-Chu Chiang.
- *Opinion Transfer: Sentiment Classification with Limited Labeled Data* "V °
Jiangning Wu, Guangfei Yang, and Fengzha Ma.
- *Towards Secure Software Development Assimilation: The Effect of Software Champion via Top Management* "V °
Mingqiu Song, Donghao Chen
- *Towards IoT-based Amicable Intelligence: Case of Smarter Cities* "P IC
Haoxiang Xia, Chonghui Guo, Mingzheng Wang.