COMPSAC 2011

35th Annual IEEE Signature Conference on Computer Software and Applications

Conference Program
The Computed World: Software Beyond the Digital Society
Munich, Germany
July 18-21, 2011

barrierefreie Anlieferung
barrier-free Loading Bay

Forum 14

Forum 15 & 16

Forum 12

Ballsaal
Ballroom

Service

Forum 11

Forum 10

Forum 9

Restaurant

Terrasse

Foyer
Ballsaal

WC

WC

Meeting-
room

Reception

Terrasse

WC

Check Inn
Terminals

Forum 8

Lobby

Hoch² – die Bar

Foyer

Haupteingang
Main Entrance

Lounge

WC

WC

Forum 7

Forum 6

U/S-Bahn

Foyer

Service

Boardroom

Foyer Großer Saal

Forum 3

Forum 5

Forum 4

Forum 2

Großer Saal
Main Ballroom

Forum 1

Hochstrasse

Rosenheimer-Strasse

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Welcome to COMPSAC 2011! On behalf of the Organizing and Program Committees, we enthusiastically welcome you to Munich, to attend the 35th Annual International Computer Software and Applications Conference (COMPSAC). COMPSAC is designated as the IEEE Computer Society Signature Conference on Software Technology and Applications. COMPSAC is a major international forum for researchers, practitioners, managers, and policy makers interested in computer software and applications. It was first held in Chicago in 1977, and has since been a major forum for academia, industry, and government to discuss state of the art, new advances, and future trends in software technologies and practices.

The technical theme of this year's COMPSAC is inspired by the ever increasing impact computing has on our lives, not just within the information field. As such, "The Computed World: Software Beyond the Digital Society" forms this year's theme. The program features research and industrial practice papers with a wide range of topics, focusing on the software engineering of critical infrastructure systems such as, but not limited to, civil, telecommunications, and medical systems. To properly engineer such systems, the foundations, methodologies, and mechanisms that support the design, modeling, and evaluation of software systems must come from diverse sources. Topics of interest include requirement analysis, co-analysis and co-design, modeling, design, development, testing, measurement, verification and validation for performance, safety, security, and dependability constraints. Effective construction of these systems is not limited solely to the field of computer science and engineering and is truly a multidisciplinary effort. Multidisciplinary work, research and development software prototypes, industry-university collaborations, all based on new emerging and critical technologies are all part of COMPSAC.

We're happy to have two distinguished speakers and a plenary panel that engage the audience in the conference theme. Dr.-Ing. Reinhold E. Achatz of Siemens and Dr. Chris Bishop of Microsoft Research provide keynotes. Plenary panelists provide an international perspective on the conference theme, bringing together funding agency and industry representatives from across the globe to address their vision for software beyond the digital society.

We take this opportunity to thank the Track Chairs and members of the Program Committee (PC) who have served in important positions to solicit papers, review papers, participate in the PC program discussions and select papers for the final technical program. We thank the reviewers for their hard work in providing quality reviews for each paper. We'd like to specifically acknowledge the contributions of Iqbal Ahamed, Zhi Jin, Wolfgang Minker, Sumi Helal, and Rajesh Subramanyan in creating and setting the program. Special thanks are extended to Professor Carl Chang for his enthusiastic contribution to the entire technical program development process and for his serving as the Standing Committee Chair and to the faculty, staff, and students at Iowa State University and the Missouri University of Science and Technology for running the conference websites and paper submission system and to Peking University for holding the PC meeting. Particular recognition goes to students Haihua Xie and Thoshitha Gamage as students whose tireless work has kept everything running smoothly. Finally, we wish to specially thank Frances Paulisch for our excellent local arrangements in Munich and Siemens for their financial support and support of the Doctoral Symposium.

We also thank all the keynote speakers, panelists and authors for their contribution to the exciting technical program in COMPSAC 2011.

General Chairs
COMPSAC 2011
Bruce McMillin and Klaus Beetz

Bruce McMillin

Klaus Beetz

Monday July 18: Workshop Day

Room	Forum 10	Forum 11	Forum 12	Forum 14	Forum 7	Forum 1	Forum 2	Forum 3	Board-room	Forum 8	Forum 9
8:30-9:30	IWSC1	ONIT1	STPSA 1	STA1	CORCS IEESD 1	Cloud1	QUORS 1	CFSE	ESAS	REFS1	IWPD1
9:30-10:00	*Morning Break*										
10:00-11:30	IWSC2	ONIT2	STPSA 2	STA2	CORCS IEESD 2	Cloud2	QUORS 2	SAPSE 1	SSS1	REFS2	IWPD2
11:30-13:30	*Lunch*										
13:30-15:00	IWSC3	ONIT3	STPSA 3	STA3	CORCS IEESD 3	Cloud3	QUORS 3	SAPSE 2	SSS2	REFS3	IWPD3
15:00-15:30	*Afternoon Break*										
15:30-17:00	IWSC4	ONIT4		STA4	CORCS IEESD 4	Cloud4	QUORS 4			REFS4	IWPD4
18:00	Three city tour guides will provide an approximately 90 minute (mostly walking) tour of Munich. Tours will return to either the hotel or the Marienplatz.										

Tuesday July 19: Conference Day 1

8:30am - 10:00am Joint Opening Session: Joint COMPSAC/SAINT Keynote

Conference Welcome: Opening Remarks: Prof. Sorel Reisman, President, IEEE-CS; Prof. Kazuo Furukawa, President, IPSJ

Joint Keynote Address: Prof. Dr.-Ing. Reinhold E. Achatz (Corporate Vice President, Siemens AG)

"From Embedded Systems to Cyber-physical Systems: Research Challenges and Application Areas"

Location: Großer Saal

Session Chair: Rajesh Subramanyan

Room	Forum 10&11	Forum 14	Forum 15&16	Forum 8
10:00-10:30	*Morning Break*			
10:30-12:00	Web-Based System I	Security, Dependability, and Performance I	Software Testing I	Applications
12:00-13:30	*Lunch*			
13:30-15:00	Formal Methods	HCI and Usability I	Real-Time, Embedded and Physical Systems I	Education and Learning
15:00-15:30	*Afternoon Break*			
15:30-17:00	Software Architecture and Design I	Semantic Web I	Mobile & Pervasive Computing I	Security, Dependability, and Performance II

18:30-21:00: COMPSAC/SAINT Joint Welcome Reception

Best Paper Awards: COMPSAC Program Chair; SAINT Awards Chair

Location: Bavarian Parliament "Maximilianeum," Host Barbara Stamm (President of Bavarian State Parliament)

Welcome Address by Reinhold Bocklet (VP of Bavarian State Parliament)

Wednesday July 20: Conference Day 2				
8:30am - 10:00am: Joint COMPSAC/SAINT Keynote Joint Keynote Address: Dr. Chris Bishop (Microsoft Research Cambridge) *"Embracing Uncertainty: The New Machine Learning"* Location: Großer Saal				
Room	Forum 10&11	Forum 15	Forum 16	Forum 8
10:00-10:30	*Morning Break*			
10:30-12:00	Requirements Engineering I	Creative Computing	Software Quality I	Panel 1: Privacy in the Cloud
12:00-13:30	*Lunch, Joint COMPSAC & SAINT Planning Meeting, Forum 10 & 11*			
13:30-15:00	Software Architecture and Design II	Security, Dependability, and Performance III	Real-Time, Embedded and Physical Systems II	Panel 2: Formal Methods Applied in Industry: Success stories, Limitations, Perspectives
15:00-15:30	*Afternoon Break*			
15:30-17:00	Requirements Engineering II	Software Evolution, Maintenance, and Life Cycle	Mobile & Pervasive Computing II	Panel 3: *"Smart Technology"* – Applications and Infrastructure
18:30-21:30: COMPSAC/SAINT Conference Banquet Location: Augustinerkeller *Wear your Dirndl dress or your Lederhosen*				
Thursday July 21: Conference Day 3				
8:30am - 10:00am: Joint Panel "Technology Summit: International Perspectives on Computed World" Panelists: Alan Blatecky, NSF, USA; Kazuo Furukawa, Senior Corporate Adviser, Hitachi, Ltd., Japan; Zhi Jin, Peking University, China; Wolfgang Kellerer, NTT DOCOMO, Germany; Alkis Konstantellos, Principal Scientific Officer, European Commission Location: Großer Saal				
Room	Forum 11	Forum 15	Forum 16	Forum 8	Forum 12
10:00-10:30	*Morning Break*				
10:30-12:00	Web-Based Systems II	Semantic Web II	Software Quality II	Panel 4: Opportunities and Challenges in Software Engineering for the Next Generation Automotive	Joint Doctoral Symposium (closed session)
12:00-13:30	*Lunch, Doctoral Symposium Lightning Talks in Großer Saal*				
13:30-15:00	Requirements Engineering III	HCI and Usability II	Software Testing II	Panel 5: Healthcare	Joint Doctoral Symposium
15:00-15:30	*Afternoon Break*				
15:30-17:00	Software Architecture and Design III	Security, Dependability, and Performance IV		Panel 6: Software Test Economics: The Bottom Line	Doctoral Student Lab Tour (15:00)
17:15-17:30	Joint Doctoral Symposium Award Ceremony: Forum 12				

Note: the second "Room" header row has six columns (Room, Forum 11, Forum 15, Forum 16, Forum 8, Forum 12).

Monday July 18, 2011

IWSC1
Chair: Lin Liu, Tsinghua University, China
Location: Forum 10

    Welcome from General Chair
        Hong Zhu, Oxford Brookes University, UK
    Remarks from Chair of Steering Committee
        Stephen S. Yau, Arizona State University, USA
    Report from Program Co-Chair
        Lin Liu, Tsinghua University, China
    State flow to Extended Finite Automata Translation
        Meng Li, Ratnesh Kumar, Iowa State University, USA

IWSC2
Chair: Kaiyuan Cai, Beijing University of Aeronautics and Astronautics, China
Location: Forum 10

    Adaptive RTP Rate Control Method
        Uras Tos, Tolga Ayav
    Fuzzy Control-based Software Self-Adaptation: A Case Study in Mission Critical Systems
        Qiliang Yang, Jian Lu, Xianping Tao, Hao Hu, Yang Zou
    A Sufficient Condition for Parameters Estimation in Dynamic Random Testing
        Junpeng Lv, Hai Hu, Kai-yuan Cai

IWSC3
Chair: Ron S. Kenett, KPA, Ltd. Isreal
Location: Forum 10

    A Performance Guarantee Approach for Cloud Applications Based on Monitoring
        Jin Shao, Qianxiang Wang
    Distributed Monitoring and Adaptation of Multiple QoS in Service-Based Systems
        Stephen S. Yau, Dazhi Huang
    Software Fault Localization Based On Centrality Measures
        Ling-Zan Zhu, Bei-Bei Yin, Kai-Yuan Cai

IWSC4
Chair: Stephen S. Yau, Arizona State University, USA
Location: Forum 10

    Panel: Future Directions of Software Cybernetics
        Kai-Yuan Cai, Beijing University of Aeronautics and Astronautics, China
        Ron S. Kenett, KPA Ltd., Israel
        Tugkan Tuglular, Izmir Institute of Technology, Turkey
        Hong Zhu, Oxford Brookes University, UK
    Planning for IWSC 2012

ONIT1
Chair: Julius Mueller, Technical University Berlin, Germany
Location: Forum 11

Keynote Presentation: Mobile Service Evolution und Research Trends in Future Internet, Kurt Tutschku,
    University of Vienna, Austria

ONIT2
Chair: Julius Mueller, Technical University Berlin, Germany
Location: Forum 11

    Policies to Enable Serving Untrusted Services on Alternative (non-3GPP) and Untrusted Access Networks in EPS

Rebecca Copeland, Noel Crespi

A Framework for the Management of Operator Policies and User Preferences for Service Compositions in the IP Multimedia Subsystem

Mosiuoa Tsietsi, Alfredo Terzoli, George Wells

A Dynamic Host Configuration Protocol based Service Discovery Mechanism

Stephan Massner, Tom Weber

ONIT3
Chair: Rebecca Copeland, Huawei, Europe
Location: Forum 11

IMS Threat and Attack Surface Analysis using Common Vulnerability Scoring System

Sami Petäjäsoja, Heikki Kortti, Ari Takanen, Juha-Matti Tirilä

End-to-End QoS Model for Mobile WiMAX Systems

Sunghyun Cho, Jae-Hyun Kim, Jonghyung Kwun

Invited talk: National IP Interconnection Issues and Implementing IMS Peering Solutions

Pieter Veenstra, KPN

ONIT4
Chair: Rebecca Copeland, Huawei, Europe
Location: Forum 11

HIVE - Enabling ETSI IMS Plugtests Events

Giulio Maggiore, Julien de Chanaud, Julius Mueller, Andreas Roeth

IMS/NGN Service Lab.: A Testbed for Creating Innovative IMS/NGN Service Applications

Shin-ichi HANDA, Junnosuke YAMADA, Hiroya MINAMI, Daichi, NAMIKAWA, Michio SHIMOMURA

Demo: Teleweaver - Next Generation Enabler for Rural Telecentres and Access Nodes

Mosiuoa Tsietsi (Rhodes University)

Discussions

STPSA1
Chair: Panagiotis Katsaros, Aristotle University of Thessaloniki
Location: Forum 12

Detecting Code Injection Attacks in Internet Explorer

Blake Anderson, Daniel Quist, Terran Lane

Test Driving Static Analysis Tools in Search of C Code Vulnerabilities

George Chatzieleftheriou, Panagiotis Katsaros

STPSA2
Chair: Hossain Shahriar, Queen's University, Canada
Location: Forum 12

Injecting Comments to Detect JavaScript Code Injection Attacks

Hossain Shahriar, Mohammad Zulkernine

Adaptive Rule-Based Malware Detection Employing Learning Classifier Systems: A Proof of Concept

Jonathan Blount, Daniel Tauritz, Samuel Mulder

Impact of Adding Security to Safety-Critical Real-Time Systems: A Case Study

Andrew Kornecki, Wendy Stevenson

STPSA3
Chair: Paul Giura, AT&T, USA
Location: Forum 12

Secure Communication via Shared Knowledge and a Salted Hash in Ad-hoc Environments

Alexander Kent, Lorie Liebrock

The Security Cost Of Content Distribution Network Architectures

Paul Giura, Gustavo De Los Reyes

STA1
Chair: Rajesh Subramanyan, Siemens, USA
Location: Forum 14

 Keynote: *Automated Testing - A Business Perspective*
 Theo Frutiger, Siemens Switzerland
 Invited Talk: *Dealing with Test Automation Debt at Microsoft*
 Jean Hartmann, Principal Test Architect – MS Office, Microsoft

STA2:
Chair: W. Howden, University of California at San Diego, USA
Location: Forum 14

 Automated Test Case Generation for Web Applications from a Domain Specific Model
 Arne-Michael Törsel
 Petri Net Based Verification of Causal Dependencies in ECU Test Cases
 Sebastian Thiel, Frank Derichsweiler
 Interface Based Automated Testing for Open Software Architecture
 Xiaoying Bai, Hao Lu, Yao Zhang, Renwei Zhang, Linping Hu, Hong Ye
 Achieving High Branch Coverage With Fewer Paths
 Yu Dong, Mengxiang Lin, Kai Yu, Yi Zhou

STA3:
Chair: Fevzi Bell, The University of Paderborn, Germany
Location: Forum 14

 Tutorial: *Error-Based Software Testing and Analysis*,
 W. Howden
 Specification and Verification of Time Properties of Distributed Systems During Test Planning Phase
 Tri Nguyen, Silvije Jovalekić
 Towards Rapid Creation of Test Adaptation in On-line Model-Based Testing
 Kim Nylund, Erik Östman, Dragos Truscan

STA4:
Chair: Xiaoying Bai, Tsinghua University, China
Location: Forum 14

 Statistical Evaluation of Test Sets Using Mutation Analysis
 Fevzi Belli, Mutlu Beyazıt, Nevin Güler, Axel Hollmann
 Mutation Analysis of Magento for Evaluating Threat Model-Based Security Testing
 Lijo Thomas, Weifeng Xu, Dianxiang Xu
 An Improved Technique of Fitness Evaluation for Evolutionary Testing
 Seon Yeol Lee, Hyun Jae Choi, Yeon Ji Jung, Tae ho Kim, Heung Seok Chae, Carl K. Chang

CORCS-IEESD1
Chair: Cristina Seceleanu, Malardalen University, Sweden
Location: Forum 7

 Invited Talk: *IT Simply Works: Simplicity and Embedded Systems Design*
 Tiziana Margaria, The University of Potsdam, Germany

CORCS-IEESD2
Chair: Detlef Streitferdt, Ilmenau University of Technology, Germany
Location: Forum 7

 Towards Automatic Reconfiguration of Aviation Software Systems
 Stefan Burger, Oliver Hummel
 Predicting Timing Performance of Advanced Mechatronics Control Systems
 Jeroen Voeten, Teun Hendriks, Bart Theelen, Jan Schuddemat, Wouter Tabingh Suermondt, Kees
 Kotterink, John Gemei, Cees van Huët

A Case Study on SDF-based Code Generation for ECU Software Development
Guangxin Li, Rong Zhou, Rongqing Li, T. John Koo

CORCS-IEESD3
Chair: Tiberiu Seceleanu, ABB Corporate Research, Sweden
Location: Forum 7
A Burst-aware Scheduling Scheme Supporting Quality of Service in WiMAX Networks
Ya-Yun Cheng, Yaw-Chung Chen
Automatic Synthesis and Adaption of Gray-box Components for Embedded Systems
Etienne Borde, Jan Carlson
Specifying Communication Behaviours Between Components With Real-time rCOS - A Case Study
ATP
Dehui Du, Xijiao Xiong

CORCS-IEESD4
Chair: Cristina Seceleanu, Malardalen University, Sweden
Location: Forum 7
A Prototype of Model-based Design Tool and its Application in the Development Process of Electronic Control Unit
Rongqing Li, Rong Zhou, Guangxin Li, T. John Koo
A Model Transformation approach Based on Homomorphic Mappings between UML Activity Diagrams and BPEL4WS Specifications of Grid Service Workflows
Leila Jemni ben Ayed, Yousra Bendaly Hlaoui
Channel Modeling for Wireless Underground Sensor Networks
Hu Xiaoya, Gao Chao, Wang Bingwen, Xiong Wei

CLOUD1
Chair: Ivona Brandic, Vienna University of Technology, Austria
Location: Forum 1
A Combined Workload Planning Approach for Multi-Tenant Business Applications
Christof Momm, Wolfgang Theilmann
A Framework for Resource Allocation Strategies in Cloud Computing Environment
Muhammad Arfeen, Krzysztof Pawlikowski, Andreas Willig

CLOUD2
Chair: Christof Momm, SAP Research, Germany
Location: Forum 1
Towards a Generic Cloud-based Virtual Research Environment
Bastian Roth, Robin Hecht, Bernhard Volz, Stefan Jablonski
Overlay Cloud Networking Through Meta-Code
Dag Johansen, Joseph Hurley
An Interactive Web-based Visualization Tool: Design and Development Cycles
Bahtijar Vogel

CLOUD3
Chair: Bill Claycomb, Carnegie Mellon University, USA
Location: Forum 1
Using Web Search Results and Genetic Algorithm to Improve the Accuracy of Chinese Spam Email Filters
Kai-shin Lu
An Approach to Explore Mobile Software Engineering Advances in Cloud Computing Environment
Weider Yu
SLA-Aware Application Deployment and Resource Allocation in Clouds
Vincent Chimaobi Emeakaroha, Ivona Brandic, Michael Maurer, Ivan Breskovic

CLOUD4
Chair: Bill Claycomb, Carnegie Mellon University, USA
Location: Forum 1

Invited Talk: Virtual Infrastructure Management based on Matrix Projections
Thomas Setzer, Technical University of Munich, Germany

QUORS1
Chair: Hongji Yang, De Montfort University, UK
Location: Forum 2

Model-Based Practical Guidelines for Scheduling Software Projects
Frank Padberg, David Weiss
Software Reliability Model with Coxian Distribution of Length of Intervals Between Errors Detection and Fixing Moments
Vladimir Bubnov, Anatoly Khomonenko, Alexey Tyrva

QUORS2
Chair: Xiaodong Liu, Edinburgh Napier University, UK
Location: Forum 2

An Approach for Evaluating the Effectiveness of Design Patterns in Software Evolution
Nien-Lin Hsueh, Lin-Chieh Wen, Der-Hong Ting, William Chu, Chih-Hung Chang, Chorng-Shiuh Koong
Aspect-Oriented Security and Exception Handling Within an Object Oriented System
Richard Millham, Evans Dogbe
Exploring How to Support Software Revision in Software Non-intensive Projects Using Existing Techniques
Haruhiko Kaiya, Kenichiro Hara, Kyotaro Kobayashi, Akira Osada, Kenji Kaijiri

QUORS3
Chair: Xiaodong Liu, Edinburgh Napier University, UK
Location: Forum 2

A Lightweight Component-based Development Approach for Enterprise Applications
Jingang Zhou, Dazhe Zhao, Jiren Liu
A Scenario-Based Approach for Requirements Elicitation for Software Systems Complying with the Utilisation of Computing Technologies
Mohammed Alawairdhi, Eisa Aleisa
XML-based Reusable Component Repository for Embedded Software
Chih-Hung Chang, Chih-Wei Lu, William C. Chu, Chao-Tung Yang, Pao-Ann Hsiung, Nien-Lin Hsueh, Chorng-Shiuh Koong

QUORS4
Chair: Richard Millham, University of Bahamas
Location: Forum 2

Lightweight Software Product Line Based Privacy Protection Scheme for Pervasive Applications
Zakwan Jaroucheh, Xiaodong Liu, Sally Smith, Huiqun Zhao
Using Markov-chains to Model Reliability and QoS for Deployed Service-based Systems
Huanyin Yi, Changhai Jiang, Hai Hu, Kai-Yuan Cai, Aditya P. Mathur
Detecting Artifact Anomalies in Temporal Structured Workflow as Reusable Assets
Hwai-Jung Hsu, Feng-Jian Wang

CFSE
Chair: Rafael Accorsi, University of Freiburg, Germany
Location: Forum 3

Invited Talk: Auditing a Cloud : New Services and the Old Problems
Christian Schlaeger, Ernst & Young, Germany

Towards an Engineering Approach to File Carver Construction
Leon Aronson, Jeroen van den Bos
Protection of Intellectual Property in Web Communities by Modular Digital Watermarking
Svetozar Ilchev, Zlatoliliya Ilcheva

SAPSE1
Chair: Stelvio Cimato, University of Milan, Italy
Location: Forum 3
Expressiveness Considerations of XML Signatures
Meiko Jensen, Christopher Meyer
Business Process as a Service: Chances for Remote Auditing?
Rafael Accorsi

SAPSE2
Chair: Rafael Accorsi, University of Freiburg, Germany
Location: Forum 3
A Privacy Preserving Reputation Protocol for Web Service Provider Selection
Omar Hasan, Lionel Brunie, Ernesto Damiani, Bruce Char
Medical Technology in Smart Homes: Exploring the User's Perspective on Privacy, Intimacy and Trust
Martina Ziefle, Carsten Röcker, Andreas Holzinger
Formal Approaches to Mode Conversion and Positioning for Vehicle System
Wen Su, Fan Yang, Xiaofeng Wu, Jian Guo, Huibiao Zhu

ESAS
Chair: Duygu Çelik, Istanbul Aydın University, Turkey
Location: Boardroom
A Functional Approach to Agent Development -- A Research Agenda
Alex Muscar, Costin Badica
Finding Suitable Course Material through a Semantic Search Agent for Learning Management Systems of Distance Education
Duygu Celik, Atilla Elci, Eray Elverici, Candan Celik

SSS1
Chair: Jijiang Yang, Tsinghua University, China
Location: Boardroom
Service Modeling: A Model Based Approach for Business and IT Alignment
Vedran Hrgovcic, Wilfrid Utz, Dimitris Karagiannis
Improving Query Suggestion for Digital Libraries
Lemen Chao, Yong Zhang, Chunxiao Xing
Interoperable Spatial Information System Architecture Based on Ubiqiutous ID Infrastructure
Shinsuke Kobayashi, Yukihiko Shigesada, Noboru Koshizuka, Ken Sakamura

SSS2
Chair: Yang Li, British Telecom, UK
Location: Boardroom
An Intelligent Information System for Maternal and Child Health Care
Lei Chen, Ji-Jiang Yang, Qing Wang, Ming-yu Wang
Analyzing the Digital Home's Quality of Service
Antonin Chazalet Sébastien Bolle, Serger Martin
Optimized Service Discovery using QoS based Ranking: A Fuzzy Clustering and Particle Swarm Optimization Approach
Rajni Mohana, Deepak Dahiya

REFS1
Chair: Colette Rolland, University of Paris, France
Location: Forum 8
Keynote Speaker: Barbara Pernici, Politechnico di Milano, Italy

REFS2
Chair: Lin Liu, Tsinghua University, China
Location: Forum 8
Goal-driven Adaptation of Service-Based Systems from Runtime Monitoring Data
Xavier Franch, Paul Grünbacher, Marc Oriol, Benedikt Burgstaller, Deepak Dhungana, Lidia López, Jordi Marco, João Pimentel
Reconciling Requirements and Implementation via Reengineering for Context-Aware Service Evolution
Jianchu Huang, Hongji Yang
The Influence of Context on Intentional Service
Salma Najar, Manuele Kirsch-Pinheiro, Carine Souveyet
Matching User Requirements with Query formulations in Intentional Service Oriented Computing
Said Assar, Kadan Aljoumaa, Carine Souveyet
Considering Technology Representation in Service-Oriented Business Models
Eliel Morales, Xavier Franch, Alicia Martínez, Hugo Estrada

REFS3
Chair: Jian Yang, Macquaire University, Australia
Location: Forum 8
Invited Speaker: *Building an Artifact Centric Business Process Management System*
Jianwen Su, University of California, Santa Barbara, USA
Augmenting Cloud Requirements Engineering with Meta-Services
Rainer Schmidt
Conceptualisation of Hybrid Service Models: An Open Models Approach
Wilfrid Utz, Vedran Hrgovcic, Dimitris Karagiannis
Spectrum Analysis for Software Quality Requirements using Analyses Records
Haruhiko Kaiya, Shunichi Suzuki, Toru Ogawa, Masaaki Tanigawa, Masahiro Umemura, Kenji Kaijiri
Identifying Service Requirements in Solution and Infrastructure Improvement Projects
Beatrice Hwong, Xiping Song

REFS4
Chair: Eric Yu, University of Toronto, Canada
Location: Forum 8
Panel Discussion: *How Can Adaptive Systems and Services Lead to an Adaptive Enterprise?*
Moderator: Eric Yu, Panelists: Colette Rolland, Xavier Franch, Jian Yang, Barbara Pernici, Oliver Creighton

IWPD1
Chair: W. Eric Wong, The University of Texas at Dallas, USA and T.H. Tse, The University of Hong Kong, Hong Kong
Location: Forum 9
Keynote Speech*: A Property-Based Approach Towards Debugging*
T.Y. Chen, Swinburne University of Technology, Australia

IWPD2
Chair: Tugkan Tuglular, İzmir Institute of Technology, Turkey
Location: Forum 9
On the Consensus-based Application of Fault Localization Techniques
Vidroha Debroy, W. Eric Wong

Debugging Debugging
        Kinsun Tam
Tracing Static Fields of Embedded Parallel Java Applications
        Sascha Uhrig

IWPD3
Chair: Dianxiang Xu, Dakota State University, USA
Location: Forum 9
    Keynote Speech: *Statistical Approach to Fault Localization: Challenges and Achievements*
        W.K. Chan, City University of Hong Kong, Hong Kong

IWPD4
Chair: T.H. Tse, The University of Hong Kong, Hong Kong
Location: Forum 9
    Panel: *Program Debugging: State-of-the-Practice and Future Trends*
        Rui Abreu, University of Porto, Portugal
        Hongji Yang, De Montfort University, UK
        Hong Zhu, Oxford Brookes University, UK

Tuesday July 19, 2011
8:30-9:00   Opening Session
        Joint Conference Welcome: Bruce McMillin and Kenichi Yoshida
        Opening Remarks: Prof. Sorel Reisman, President, IEEE-CS; Prof. Kazuo Furukawa,
          President, IPSJ
        COMPSAC Program Overview: Zhi Jin
        SAINT Program Overview: Hiroyuki Ohsaki
        Location: Großer Saal
        Session Chair: Bruce McMillin
9:00-10:00 Joint Keynote
        Prof. Dr.-Ing. Reinhold E. Achatz (Corporate Vice President, Siemens AG)
        *"From Embedded Systems to Cyber-physical Systems: Research Challenges and Application
                Areas"*
        Location: Großer Saal
        Chair: Rajesh Subramanyan

10:00-10:30   Morning Break
10:30-12:00   Parallel Sessions

Web-based Systems I
Chair: Kenji Takahashi, NTT Multimedia Communications Lab, USA
Location: Forum 10&11
        *An Adaptive Performance Modeling Approach to Performance Profiling of Multi-Service Web
                Applications*
        Xiang Huang, Wei Wang, Wenbo Zhang, Jun Wei, Tao Huang

        A Semantic Matching Algorithm of Web Services Based on Google Distance
        Huirong Yang, Pengbin Fu, Liang Gu

        An Intelligent Broker Approach to Semantics-based Service Composition
        Yufeng Zhang, Hong Zhu

        The Emerging Web of Social Machines
        Silvio Meira, Vanilson Buregio, Leandro Marques, Misael Neto, Elaine Figueiredo, Bruno Encarnacao,
                Vinicius Garcia

Security, Dependability, and Performance I
Chair: Mohammad Zulkernine, Queens University, Canada
Location: Forum 14

Confidentiality Preserving Security Properties for Cyber-Physical Systems
Thoshitha Gamage, Bruce McMillin, Thomas Roth

Bench4Q: A QoS-Oriented E-commerce Benchmark
Wenbo Zhang, Sa Wang, Wei Wang, Hua Zhong

P3D Privacy-Preserving Path Discovery in Decentralized Online Social Networks
Mingqiang Xue, Barbara Carminati, Elena Ferrari

Software Testing I
Chair: Kaiyuan Cai, Beijing University of Aeronautics and Astronautics, China
Location: Forum 15&16

Precise Propagation of Fault-Failure Correlations in Program Flow Graphs
Zhenyu Zhang, Bo Jiang, W. K. Chan, T. H. Tse

An Analysis of Failure-based Test Profiles for Random Testing
Robert Merkel, Tsong Yueh Chen, Fei-Ching Kuo

Testing Tasks Management in the Testing Cloud Environment
Lian Yu, Xiaohu Li, ZhongJie Li

Applications
Chair: Sahra Sedigh, Missouri University of Science and Technology, USA
Location: Forum 8

A Management Tool for the Replication of Operating Systems in Wireless Communication Networks
Luis Crepaldi, Adriano Digieri, Roberta Spolon, Marcos Cavenaghi, Renata Lobato

A DSML for Coordinating User-Centric Communication Services
Yali Wu, Frank Hernandez, Peter J. Clarke, Robert B. France

On Extracting Perception-based Features for Effective Similar Shader Retreival
Min-Hee Jang, Si-Yong Lee, Sang-Wook Kim, Myung-Cheol Roh, Jae-Ho Lee, Seung-Woo Nam

Multi-node Network Based Control and Data Acquisition System for a VHF Radar Depth Sounder
Chris Prokopiak, Carl Leuschen, Fernando Rodriguez-Morales, John Ledford, William Blake, Anthony Hoch, Hilary Barbour

12:00-13:30 Lunch
13:30-15:00 Parallel Sessions

Formal Methods
Chair: Cristina Seceleanu, Malardalen University, Sweden
Location: Forum 10&11

Ant Colony Optimization for Deadlock Detection in Concurrent Systems
Gianpiero Francesca, Antonella Santone, Gigliola Vaglini, Maria Luisa Villani

A Formal Semantics of PLC Programs in Coq
Sidi Ould Biha

An Abstraction Method for Analysis of Mobility and Interaction in Process Algebra Using Behavior Ontology
Sujeong U, Jinho On, Moonkun Lee

HCI and Usability I
Chair: Masahiro Araki, Kyoto Institute of Technology, Japan
Location: Forum 14

Spoken Interaction within the Computed World: Evaluation of a Multitasking Adaptive Spoken Dialogue System
Tobias Heinroth, Dan Denich

Assessing Web Site Usability in Retail Electronic Commerce
Charles Downing, Chang Liu

Spoken Dialogue System for Learning Braille
Masahiro Araki, Kana Shibahara, Yuko Mizukami

Real-Time, Embedded and Physical Systems I
Chair: William Chu, Tunghai University, Taiwan
Location: Forum 15&16

Semi-Automation of Configuration Files Generation for Heterogeneous Multi-Tile Systems
Alexandre Chagoya-Garzon, Nicolas Poste, Frederic Rousseau

Adaptive Bandwidth-based Thread Group Scheduler for Compositional Real-Time Middleware Architectures
Jagun Kwon, Stephen Hailes

A Concept for Secure Production Programming of Embedded Industrial Field Devices
Jimmy Kjellsson, Martin Törngren

Education and Learning
Chair: Timothy Shih, National Central University, Taiwan
Location: Forum 8

Combining Dynamic Program Viewing and Testing in Early Computing Courses
James Cross, Theron Hendrix, Larry Barowski

Getting Software Assurance Knowledge into Conventional Practices: Three Educational Initiatives
Nancy Mead, Linda Laird, Dan Shoemaker

Interactive Real-Time Embedded Systems Education Infused with Applied Internet Telephony
Kyle Persohn, Dennis Brylow

15:00-15:30 Afternoon Break
15:30-17:00 Parallel Sessions

Software Architecture and Design I
Chair: Qianxiang Wang, Peking University, China
Location: Forum 10&11

An Approach to Model-based Development of Context-aware Adaptive Systems
Mahmoud Hussein, Jun Han, Alan Colman

SPEM Extension with Software Process Architectural Concepts
Fadila Aoussat, Mourad Oussalah, Mohamed Ahmed Nacer

An AADL-based Modeling Method for ARINC653-based Avionics Software
Ying Wang, Dianfu Ma, Lu Zou, Xianqi Zhao, Yongwang Zhao

Semantic Web I
Chair: Atilla Elci, Toros University, Turkey
Location: Forum 14

Fine-grained Configuration Management for Collaborative Ontology Development
Tao Yang, Yijian Wu, Xin Peng, Wenyun Zhao

Diagnosis of Software Models with Multiple Levels of Abstraction Using Ontological Metamodeling
Nophadol Jekjantuk, Jeff Z. Pan, Birte Glimm

Managing Web Content using Linked Data Principles -- Combining Semantic Structure with Dynamic Content Syndication
Norman Heino, Sebastian Tramp, Sören Auer

Quality Validation through Pattern Detection – A Semantic Web Perspective
David Walsh, Philipp Schugerl, Juergen Rilling, Philippe Charland

Mobile & Pervasive Computing I
Chair: Paolo Bellavista, DEIS, University of Bologna, Italy
Location: Forum 15&16

Model Checking Aspectual Pervasive Software Services
Dhaminda Abeywickrama, Sita Ramakrishnan

PAIM: Peer-based Automobile Identity Management in Vehicular Ad-hoc Network
Anna C Squicciarini, Dan Lin, Alessandro Mancarella

Supporting Dynamic Service Updates in Pervasive Applications
Junqing Chen, Linpeng Huang

Security, Dependability, and Performance II
Chair: Tugkan Tuglular, Izmir Institute of Technology, Turkey
Location: Forum 8

24/7 Real-Time Data Warehousing: A Tool for Continuous Actionable Knowledge
Ricardo Santos, Jorge Bernardino, Marco Vieira

A Framework for Access Control with Inference Constraints
Vasilios Katos, Dimitris Vrakas, Panagiotis Katsaros

L1 - An Intermediate Language for Mixed-Protocol Secure Computation
Axel Schröpfer, Florian Kerschbaum, Günter Müller

18:30-20:30   COMPSAC/SAINT Joint Presidential Reception
Location: Bavarian Parliament "Maximilianeum" Parliament
Host Barbara Stamm (President of Bavarian State Parliament)
Welcome Address by Reinhold Bocklet (VP of Bavarian State)
COMPSAC Best Paper Awards: Iqbal Ahamed
SAINT Best Paper Awards: Max Muhlhauser

Wednesday July 20, 2011
8:30-10:00   Joint Keynote
Dr. Chris Bishop (Microsoft Research Cambridge)
"Embracing Uncertainty: The New Machine Learning"
Location: Großer Saal
Session Chair: Sumi Helal

10:00-10:30   Morning Break
10:30-12:00   Parallel Sessions

Requirements Engineering I
Chair: Collette Rolland, University of PARIS-1 Pantheon-Sorbonne, France
Location: Forum 10&11

A Framework for Multi-Layered Requirements Documentation and Analysis
Michel dos Santos Soares, Jos Vrancken

Security Requirements Engineering in the Wild: A Survey of Common Practices
Golnaz Elahi, Tong Li, Lin Liu, Eric Yu

Similarity based Distributed Context Reasoning with Layer Context Modeling
Chun Kyung Lee, Thi Hien Pham, Hee Song Kim, Hee Yong Youn

Creative Computing
Chair: Hongji Yang, De Montfort University, UK
Location: Forum 15

AGORAS: Exploring Creative Learning on Tangible User Interfaces
Alejandro Catala, Javier Jaén, Adrià A. Martínez-Villaronga, Jose A. Mocholí

Palimpsests of Time and Place
Jerry Fishenden

Design and Evaluation of Social Interfaces for Cultural Exhibitions of Chinese Shadow Puppetry
Tin-Kai Chen

Ontology-Based Reliability Evaluation for Web Service
Xifeng Wang, Bixin Li, Li Liao, Chunli Xie

Software Quality I
Chair: Hong Zhu, Oxford Brookes University, UK
Location: Forum 16

Reliability and Accuracy of the Estimation Process
Marek Stochel

Quality Model driven Dynamic Analysis
PVR Murthy, Saravanakumar V, Tushar Sharma, Kiron Rao

Software Reliability Prediction for Open Source Software Adoption Systems Based on Early Lifecycle Measurements
Wangbong Lee, Joon Kyung Lee, Jongmoon Baik

Panel I: Privacy in the Cloud
Location: Forum 8
Moderator: Kenji Takahashi, NTT Multimedia, USA
Panelists: Sheikh Iqbal Ahamed (Marquette U USA),
        Marc-Michael Bergfeld (Giesecke & Devrient, Germany),
        Jos Dumortie (K.U.Leuve, Belgium),
        Gerald Kaefer (Siemens, Germany)

12:00-13:30   Lunch
               Joint COMPSAC & SAINT Planning Meeting
               Location: Forum 10 & 11
13:30-15:00   Parallel Sessions

Software Architecture and Design II
Chair: Anatoly Khomonenko, Petersburg State Transport University, Russi
Location: Forum 10&11

Software Infrastructure for Delivering and Supporting Distributed and Group-Aware Applications
Montserrat Sendín, Juan Miguel López

Semantics based Cohesion and Coupling Metrics for Evaluating Understandability of State Diagrams
Jung Ho Bae, Yeon Ji Jeong, Heung Seok Chae, Carl K. Chang

CALIGRAPHI - Creation of Adaptive diaLogues usIng a GRAPHical Interface
Gregor Bertrand, Florian Nothdurft, Frank Honold, Felix Schüssel

Security, Dependability, and Performance III
Chair: Bill Claycomb, Sandia National Laboratory, USA
Location: Forum 15

Dynamic Request Management Algorithms for Web-based Services in Cloud Computing
Mauro Andreolini, Claudia Canali, Riccardo Lancellotti, Michele Colajanni

JSBiRTH: Dynamic JavaScript Birthmark Based on the Run-time Heap
Patrick P.F. Chan, Lucas C.K. Hui, S.M. Yiu

MasterBlaster: Identifying Influential Players In Botnet Transactions
Napoleon Paxton, Gail-Joon Ahn, Mohamed Shehab

Distributed Java-based Distributed Content Protection
Smitha Sundareswaran, Anna Squicciarini, Ranjani Sundareswaran

Real-Time, Embedded and Physical Systems II
Chair: John Koo, Chinese Academy of Sciences, China
Location: Forum 16

Towards More Effective Spectrum Use Based on Memory Allocation Models
John Meier, Christopher Gill, Roger Chamberlain

Software-Based Analysis of the Effects of Electrostatic Discharge on Embedded Systems
Pratik Maheshwari, Tianqi Li, Sahra Sedigh, David Pommerenke

Enhancing Performance using Heuristic Virtual-Channel Sharing Approach in NoC-Based Architectures
Khalid Latif, Amir-Mohammad Rahmani, Tiberiu Seceleanu, Pasi Liljeberg, Hannu Tenhunen

Panel II: Formal Methods Applied in Industry: Success stories, Limitations, Perspectives
Location: Forum 8
Moderator: Cristina Seceleanu, Malardalen University, Sweden
Panelists: Tiziana Margaria University of Potsdam, Germany
          Paul Pettersson, Malardalen University, Sweden
          Bernhard Schätz, Technische Universität München, Germany

15:00-15:30 Afternoon Break
15:30-17:00 Parallel Sessions

Requirements Engineering II
Chair: Xavier Franch, Universitat Politecnica de Catalunya, Spain
Location: Forum 10&11

Conformance Checking with Constraint Logic Programming: A Case Study Using Feature Models
Raul Mazo, Roberto Lopez-Herrejon, Camille Salinesi, Daniel Diaz, Alexander Egyed

A Semi-Automated Decision Support Tool for Requirements Trade-off Analysis
Golnaz Elahi, Eric Yu

Eliciting Considerable Requirements with Word and Customer Graphs
Daichi Kimura, Tomohisa Gotoh, Ken'ichi Ikeda

Software Evolution, Maintenance, and Life Cycle
Chair: Paul Pettersson, Malardalen University, Sweden
Location: Forum 15

Reasoning about Global Clones: Scalable Semantic Clone Detection
Philipp Schugerl, Jurgen Rilling, Philippe Charland

Dynamic Software Visualization with BusyBorg - A Proof of Concept
Henning Femmer, Nora Broy, Marin Zec, Asa MacWilliams, Roland Eckl

An XML C Source Code Interchange Format for CASE Tools
Noritoshi Atsumi, Shinichiro Yamamoto, Takashi Kobayashi, Kiyoshi Agusa

Mobile & Pervasive Computing II
Chair: Weider Yu, San Jose State University, USA
Location: Forum 16

Selection and Ordering of Points-Of-Interest in Large-Scale Indoor Navigation Systems
Martin Werner

Cloudifying User-created Content for Existing Applications in Mobile Devices
Subhamoy Ghosh, Juha Savolainen, Mikko Raatikainen, Tomi Mannisto

Energy-Efficient Position Tracking for Proactive Location-Based Services in Smartphone Environments
Ulrich Bareth, Axel Küpper

Panel III: "Smart Technology" – Applications and Infrastructure
Location: Forum 8
Moderator: Sahra Sedigh, Missoutri S&T, USA
Panelists: Simanta Mitra, Iowa State, USA
Sumi Helal, University of Florida, USA
Ali Hurson, Missouri Univ. of Science and Technology, USA

18:30-20:30 COMPSAC/SAINT Joint Conference Banquet
          Location: Augustinerkeller

Thursday July 21, 2011
8:30-10:00   **Joint Panel** "Technology Summit: International Perspectives on Computed World"
            Chair: Stephen S. Yau, Arizona State University, USA
            Panelists: Alan Blatecky, NSF, USA;
                       Kazuo Furukawa, Senior Corporate Adviser, Hitachi, Ltd., Japan
                       Zhi Jin, Peking University, China
                       Wolfgang Kellerer, NTT DOCOMO, Germany
                       Alkis Konstantellos, Principal Scientific Officer, European Commission, Belgium
            Location: Großer Saal
10:00-10:30   **Morning Break**
10:30-12:00   **Parallel Sessions**

Web-based Systems II
Chair: Xiaoying Bai, Tsinghua University, China
Location: Forum 11

On-line Cache Strategy Reconfiguration for Elastic Caching Platform: A Machine Learning Approach
Xiulei Qin, Wenbo Zhang, Wei Wang, Jun Wei, Hua Zhong, Tao Huang

Automating the Development of Device-Aware Web Services: A Model-Driven Approach
Achilleas Achilleos, Nearchos Paspallis, George Papadopoulos

A Statistical Approach for CPU Consumption Estimation in Shared Java Server
Wei Wang, Xiang Huang, Yunkui Song, Wenbo Zhang, Jun Wei, Hua Zhong, Tao Huang

Semantic Web II
Chair: Xiaodong Liu, Edinburgh Napier University, UK
Location: Forum 15

Analysis of concept similarity methods applied to an LSH function
Luciano de Paula, Rodolfo Villaça, Maurício Magalhães

Detecting and Resolving Inconsistencies in Ontologies Using Contradiction Derivations

Sajjad Hussain, Jos De Roo, Ali Daniyal, Syed Sibte Raza Abidi

Application of Semantic Web Services for Mobile Telemedicine Service Discovery
Tara Raafat, Franjo Cecelja

A Staged Model for Web Service Reliability
Chunli Xie, Bixin Li, Xifeng Wang

Software Quality II
Chair: Jenny Li, Avaya Labs, USA
Location: Forum 16

Monitoring Components By Using Aspects and Contracts in Wrappers
Xiaofeng Yang, Mohammad Zulkernine

Towards Training Set Reduction for Bug Triage
Yan Hu, Weiqin Zou, Jifeng Xuan, He Jiang

Usage-based Online Testing for Proactive Adaptation of Service-based Applications
Osama Sammodi, Andreas Metzger, Xavier Franch, Marc Oriol, Jordi Marco, Klaus Pohl

A Technique of Profiling Selective Paths
Lulu Wang, Bixin Li

Panel IV: Opportunities and Challenges in Software Engineering for the Next Generation   Automotive
Location: Forum 8
Moderator: Mikio Aoyama, Nanzan University, Japan
Panelists: Manfred Broy, Technische Universität München, Germany
          Karl-Josef Kuhn, Siemens AG. Germany

12:00-13:30   Lunch and Doctoral Symposium Lightening Talks, Join us in Großer Saal
13:30-15:00   Parallel Sessions

Requirements Engineering III
Chair: Eric Yu, University of Toronto, Canada
Location: Forum 11

A Norm-Based Approach towards Requirements Patterns
Shokoofeh Ketabchi, Navid Karimi Sani, Kecheng Liu

Towards a Unified Goal-Oriented Language
Pedro Patricio, Vasco Amaral, Joao Araujo, Rui Monteiro

Requirements Recovery by Matching Domain Ontology and Program Ontology
Feng Chen, Hongji Yang, Hong Zhou

Characterizing the Implementation of Software Non-Functional Requirements
   from Probabilistic Perspective
Bo Wei, Zhi Jin

HCI and Usability II
Chair: Jijiang Yang, Tsinghua University, China
Location: Forum 15

Evaluating an Interactive-Predictive Paradigm on Handwriting Transcription: A Case Study and
   Lessons Learned
Luis A. Leiva, Verónica Romero, Alejandro H. Toselli, Enrique Vidal

Provenance Based Retrieval: File Retrieval System Using History of Moving and Editing in
   User Experience
Keiko Yamamoto, Taku Kuriyama, Haruki Shigemori, Itaru Kuramoto, Yoshihiro Tsujino, Mitsuru Minakuchi

Quantifying Usability and Security in Authentication

Martin Mihajlov, Borka Jerman-Blazic, Saso Josimovski

Software Testing II
Chair: Feng-Jian Wang, National Chiao-Tung University, Taiwan
Location: Forum 16

Does "Depth" Really Matter? On the Role of Model Refinement For Testing and Reliability
Fevzi Belli, Nevin Güler, Michael Linschulte

Semantic-Based Test Oracles
Xiaoying Bai, Kejia Hou, Hao Lu, Yao Zhang, Linping Hu, Hong Ye

Event-Based Testing vs. State-Based Testing Using Mutation Analysis - An Experimental Comparison
Fevzi Belli, Mutlu Beyazıt

SoftWare IMmunization (SWIM) -- A Combination of Static Analysis and Automatic Testing
J. Jenny Li, John Palframan, Jim Landwehr

Panel V: Healthcare
Location: Forum 8

15:00-15:30 Afternoon Break
15:30-17:00 Parallel Sessions

Software Architecture and Design III
Chair: James Cross, Auburn University, USA
Location: Forum 11

Impact of Aspect Orientation on Software Performance: A Case Study of Leader/Followers and Half-Sync/ Half-Async Architectures
Wen-Lin Liu, Chung-Horng Lung, Samuel Ajila

Performance Improvement for Collection Operations Using Join Query Optimization
Venkata Krishna Suhas Nerella, Sanjay Madria, Thomas Weigert

Development of CAN-1394 Automotive Gateway System Using Designed Modular Software Stack
Pyungsun Park, Jaeil Jung, Byounghweh Huh

An Effective Approach for Automatic Generation of Class Integration Test Order
Zhengshan Wang, Bixin Li, Lulu Wang, Qiao Li

Security, Dependability, and Performance IV
Chair: Dianxiang Xu, Dakota State University, USA
Location: Forum 15

A Hypervisor for Injecting Scenario-Based Attack Effects
Yoshihiro Oyama, Youhei Hoshi

Reach Availability of Replicated Services
Michael Tu, Dianxiang Xu, Zhonghang Xia, Jicheng Fu

Code-Change Impact Analysis Using Counterfactuals
Manuel Peralta, Supratik Mukhopadhyay

Panel VI: Software Test Economics: The Bottom Line
Location: Forum 8
Moderator: Rajesh Subramanyan, Siemens AG, USA
Panelists: Jean Hartmann, Microsoft USA; Fevzi Belli, University of Paderborn, Germany ;
        Raj Varadarajan , Siemens, USA

Joint Doctoral Symposium

COMPSAC Chair: Daniel Tauritz, Missouri University of Science and Technology, USA
SAINT Co-Chairs: Nariyoshi Yamai, Okayama University, Japan; Ming Zhao, Florida International
University, USA

10:30-11:30 Perspectives Panel (closed session in Forum 12 for Doctoral Symposium Students)
12:00-13:30 Lunch and Doctoral Symposium Lightening Talks in Großer Saal

Synthesis of Fault Detection Mechanisms
Dominik Sojer

Meta Reconfiguration of Adaptive Middleware Using Semantic Web and Context Information
Daniel Corrêa Lobato

Onion: A Graphical Language for Process Algebra
Jinho On

Towards Model-based Policy Design Methods for More Effective Spectrum Allocation
John Meier

Observable Context-based User Intention Specification in Context-Aware Environments
Haihua Xie

13:30-15:00 Poster Session in Forum 12
15:00-17:15 Siemens Research Laboratory Tour (Travel Logistics Available at the Conference)
17:15-17:30 Awards Ceremony in Forum 12

Please travel safely! Join us next year in Izmir, Turkey!

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The 36th Annual IEEE International Computer Software and Applications Conference: Trustworthy Software Systems for the Digital Society

IEEE COMPSAC 2012
Izmir, Turkey
16-20 July 2012

About COMPSAC and COMPSAC 2012

COMPSAC is the IEEE Signature Conference on Computers, Software, and Applications. It is one of the major international forums for academia, industry, and government to discuss research results, advancements and future trends in computer and software technologies and applications. The technical program includes keynote addresses, research papers, industrial case studies, panel discussions, fast abstracts, a doctoral symposium, poster sessions, and a number of workshops on emerging important topics.

Building on the themes of highly successful recent COMPSAC conferences, the main theme of the 36th conference is **"Trustworthy Software Systems for the Digital Society**." Creating the digital society calls for all aspects of computing, software development, software systems engineering, and applications. To sustain it, however, trust in systems is of paramount importance, thus the need for trustworthy software systems. Foundations, methodologies, architectures, and mechanisms that support modeling, design, implementation, and evaluation of trustworthy software systems and applications are of great concern.

Topics of Interest

- Software life cycle, evolution, and maintenance
- Requirements engineering
- Formal methods
- Software architecture and design
- Software testing
- Reliability, metrics, and fault tolerance
- Security
- HCI and usability

- Real-time and embedded systems
- Mobile & pervasive computing
- Smart computing
- Web semantics
- Web services and systems
- Cloud computing
- Education and learning
- Applications

Paper Guidelines

Authors are invited to submit original, unpublished research work as well as industrial practices. Simultaneous submissions to other venues are not permited. All accepted papers must be registered with full registration fee in order to be published in the electronic proceedings by the IEEE Computer Society. In order to enable indexing through INSPEC and EI Index, and inclusion in the IEEE digital library, a paper must be presented in person by one of its authors.

Best Paper and Best Student Paper Awards will be awarded by COMPSAC 2012. Authors of the best technical contributions will be invited to submit extended versions of their papers for possible publication in reputable journals.

Important Dates

December 8, 2011: Workshop and panel proposals
January 31, 2012: Main conference abstracts
January 15, 2012: Main conference papers
April 2, 2012: Main conference paper notification
May 2, 2012: Camera-ready copy and registration

Submission

Upload papers in PDF format at *www.compsac.org*
Submit panel or workshop proposals in plain text via email to: *compsac@cs.iastate.edu*

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