COMPSAC 2012
Trustworthy Software Systems for the Digital Society
Izmir, Turkey
16-20 July

General Chairs: Fevzi Belli and Elisa Bertino
Program Chairs: Xiaoying Bai, Atilla Elci, Mohammad Zulkernine
Workshop Chair: Cristina Seceleanu
Local Organizing Chair: Tugkan Tuglular
Welcome to COMPSAC 2012!

On behalf of the Organizing and Program Committees, we happily welcome you to Izmir, to attend the 36th Annual International Computer Software and Applications Conference (COMPSAC). The technical theme of this year’s COMPSAC focuses on foundations, methodologies, architectures, and mechanisms that support modeling, design, implementation, and evaluation of trustworthy software systems and applications that are critical for the digital society. As such, “Trustworthy Software Systems for the Digital Society” forms this year’s theme. The keynotes, program features, research and industrial practice papers, and panels with a wide range of topics, focusing on the secure use of clouds to 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. To secure such systems, security methodologies and techniques must be applied. Topics of interest of this year’s COMPSAC include requirement analysis, co-analysis and co-design, modeling, design, development, testing, measurement, verification and validation for performance, safety, security, dependability, and usability constraints, and use of novel infrastructures including the cloud. Effective construction of systems for the digital society 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 take this opportunity to thank the Track Chairs, Organization Chairs, and members of the Program Committee (PC) who have worked tirelessly soliciting and reviewing papers, and have participated in the PC program discussions and selected papers for the final technical program. We thank the reviewers for their hard work in providing quality reviews for each paper. We specifically acknowledge the contributions of the Program Chairs Xiaoying Bai, Atilla Elci, and Mohammad Zulkernine 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 for running conference websites and paper submission system and to the IEEE CS staff for organizing the PC meeting in Los Angeles. Finally, we wish to specially thank Tugkan Tuglular for his excellent local arrangements in Izmir and Laurel Tweed for all her work in several organizational aspects of the conference.

We also thank all the keynote speakers, panelists, and authors for their contribution to the exciting technical program in COMPSAC 2012. We trust that COMPSAC 2012 will provide you with a valuable opportunity to interact with other researchers and practitioners from institutions around the world.

Enjoy!!

General Chairs,
Fevzi Belli and Elisa Bertino

Wednesday July 18
Bus Trip to Ephesus

Local organizers have arranged for a bus trip for all conference attendees to visit Ephesus. Once an ancient Greek city, today Ephesus is a major archeological site located approximately 1 hour south of Izmir. Purchase dinner following the tour at Kusadasi, a nearby town on the Aegean coast.

Buses will depart from Swissotel at 16:00
17:00: Arrival at Ephesus
17:00-19:30: Tour at Ephesus and House of Virgin Mary
19:30: Board bus for Kusadasi
20:00-21:30: Time for exploring, dinner
21:30: Board bus for return trip to Swissotel, Izmir

Buses will depart from Swissotel at 16:00 for a short tour of the area, landing at the Izmir fair area, location for the ICT Vision for Izmir Search Conference. This conference seeks to explore ways for the city of Izmir to encourage the growth of technology-based industry and research. All COMPSAC/SAINT attendees are welcome to attend! Reception and social hour will follow. Attendees who can only attend the reception should gather in the Swissotel lobby at 19:30 for a guided walk to the reception location.

17:00 - 20:00: ICT Vision for Izmir Search Conference
20:00 - 21:30: Welcome Cocktail Reception
21:30: Walk back to Swissotel

Tuesday July 17
Conference Banquet

The COMPSAC/SAINT banquet will be an outdoor gala at the archaeological ruins of Old Smyrna called Agora

19:30: Walking from Swissotel to Agora
20:00: Tour
20:30: Dinner
21:30: Walking back to Swissotel

ICT Vision for Izmir Search Conference
16:00 - 17:00: Tour to the ICT Vision Conference Location: Kultur Park, Izmir Fair area
Sponsored by Izmir Municipality

Monday July 16
ICT Vision for Izmir Search Conference
COMPSAC/SAINT Welcome Reception
Sponsored by Izmir Municipality

Buses will depart from Swissotel at 16:00 for a short tour of the area, landing at the Izmir fair area, location for the ICT Vision for Izmir Search Conference. This conference seeks to explore ways for the city of Izmir to encourage the growth of technology-based industry and research. All COMPSAC/SAINT attendees are welcome to attend! Reception and social hour will follow. Attendees who can only attend the reception should gather in the Swissotel lobby at 19:30 for a guided walk to the reception location.

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COMPSAC 2012: Program at a Glance

### July 16: Workshop Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-9:30</td>
<td>Konak 1</td>
<td>Didim</td>
<td>MidArch, SSS, METHOD: Invited Talk</td>
</tr>
<tr>
<td>9:30-10:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Morning Break: Smyrna Auditorium 1 (5th floor)</td>
</tr>
<tr>
<td>10:00-12:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>10:00:12:00 - SSS 1 MidArch 1 METHOD 1 IWS C 1</td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Afternoon Break: Smyrna Auditorium 1 (5th floor)</td>
</tr>
<tr>
<td>15:00-17:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>SSS 3 MidArch 3 METHOD 3 IWS C 4</td>
</tr>
</tbody>
</table>

### Tuesday July 17: Conference Day 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 - 10:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Grand Efes Ballroom (1st floor): Conference Welcome, Opening Remarks, Best Paper Awards</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Morning Break: Smyrna Auditorium 1 (5th floor)</td>
</tr>
<tr>
<td>10:30-12:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Software Life Cycle, Evolution &amp; Maintenance I Reliability, Metrics &amp; Fault Tolerance I Software Testing I Panel 1</td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Afternoon Break: Smyrna Auditorium 1 (5th floor)</td>
</tr>
<tr>
<td>15:00-17:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Software Life Cycle, Evolution &amp; Maintenance 2 Security Software Architecture &amp; Design 2 Panel 2</td>
</tr>
</tbody>
</table>

### Wednesday July 18: Conference Day 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-10:00am</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Grand Efes Ballroom (1st floor): Joint COMPSAC/SAINT Keynote: Ross Anderson Cyber Security: Threats Real and Imagined Chair: Elisa Bertino</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Morning Break: Smyrna Auditorium 1 (5th floor) Posters Smyrna (5th floor)</td>
</tr>
<tr>
<td>10:30-12:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Requirements &amp; Panel Engineering Formal Methods Fast Abstracts: 10:15-12:30</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Joint COMPSAC &amp; SAINT Planning Meeting Location: Didim - All welcome!</td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>COMPSAC/SAINT Joint Panel on Social Computing</td>
</tr>
</tbody>
</table>

### Thursday July 19: Cloud Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-10:00</td>
<td>Konak 1/2</td>
<td>Smyrna (3rd floor)</td>
<td>Cloud Computing 1</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Konak 1/2</td>
<td>Smyrna (3rd floor)</td>
<td>Morning Break: Smyrna Auditorium 1 (5th floor)</td>
</tr>
<tr>
<td>10:30-12:00</td>
<td>Konak 1/2</td>
<td>Smyrna (3rd floor)</td>
<td>Cloud Computing 2</td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Konak 1/2</td>
<td>Smyrna (3rd floor)</td>
<td>Afternoon Break: Smyrna Auditorium 1 (5th floor)</td>
</tr>
<tr>
<td>15:30-17:00</td>
<td>Konak 1/2</td>
<td>Smyrna (3rd floor)</td>
<td>Real-Time &amp; Embedded System Mobile &amp; Pervasive Computing Applications 3 (Education) Panel 5</td>
</tr>
</tbody>
</table>

### Friday July 20: Workshop Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-10:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Grand Efes Ballroom (1st floor): Joint COMPSAC/SAINT Panel on Cloud Computing Chair: Vladimir Getov</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Morning Break: Smyrna Auditorium 1 (5th floor) Posters Smyrna (5th floor)</td>
</tr>
<tr>
<td>10:30-12:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Requirements &amp; Panel Engineering Formal Methods Fast Abstracts: 10:15-12:30</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Konak 1</td>
<td>Didim</td>
<td>Joint COMPSAC &amp; SAINT Planning Meeting Location: Didim - All welcome!</td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Konak 1</td>
<td>Didim</td>
<td>COMPSAC/SAINT Joint Panel on Social Computing</td>
</tr>
</tbody>
</table>
IEEE COMPSAC International Workshops: Monday July 16

8:30-9:30 Workshop Sessions

SSS 2012: The 5th IEEE International Workshop on Service Science and Systems
METHOD 2012: The 1st IEEE International Workshop on Methods for Establishing Trust with Open Data
MidArch 2012: The 6th IEEE International Workshop on Middleware Architecture in the Internet
Location: Karşıyaka 1 (3rd floor)
Michiaki Iwazume, National Institute of Information & Communications Technology, Japan

REFS 2012: The 6th IEEE International Workshop on Requirements Engineering for Services
Chair: Colette Rolland
Location: Bergama 3 (3rd floor)
Keynote: A Business Transaction Framework Based on Problem Diagnosis and Resolution
Willem-Jan van den Heuvel

STA 2012: The 4th IEEE International Workshop on Software Test Automation
Chair: Rajesh Subramanyan
Location: Didim (3rd floor)
Keynote:

IWSC 2012: The 9th IEEE International Workshop on Software Cybernetics
Session 1
Location: Konak 1
Welcome from General Chair:
Kai-Yuan Cai, Beijing Univ. of Aeronautics and Astronautics, China
Remarks from Chair of Steering Committee: Stephen S. Yau, Arizona State University, USA
Report from Program Co-chair: Xianping Tao, Nanjing University, China
Keynote Address: Software Cybernetics in the Age of Cloud Computing
Hong Zhu, Nanjing University, China

QUORS 2012: The 6th IEEE International Workshop on Quality Oriented Reuse of Software
Session 1: Software Evolution
Chair: Hongji Yang
Location: Bergama 2 (3rd floor)
Evaluating Extended Refactoring Guidelines
Wafa Basit

9:30-10:00 Morning Break – Smyrna Auditorium (5th floor)

SSS 2012: The 5th IEEE International Workshop on Service Science and Systems
Session 1: Service Creation and Evolution
Chair: Xiaodong Liu
Location: Karşıyaka 1 (3rd floor)
Automated Web Service Composition using Generic Programming
Liyuan Xiao, Carl K. Chang, Hen-I Yang, Kai-Shin Lu, Hsin-yi Jiang
User’s Requirements Driven Services Adaptation and Evolution

10:00-10:30 Invited Talk: A Novel Solution of Distributed File Storage for Cloud Service
Yu Zhang, Weidong Liu, Jiaxing Song

11:00-11:30 An Adaptive Quality Level Selection Method for Efficient QoS-Aware Service Composition
Jae-Hyun Cho, Jang-Ho Choi, Han-Gyu Ko, In-Young Ko

11:30-12:00 A Business Transaction Framework Based on Problem Diagnosis and Resolution
Toru Kobayashi

10:00-11:00 Invited Talk: Application Architecture Aiming for User-centric Information Discovery and Retrieval
Willem-Jan van den Heuvel

11:00-11:30 Secure ID Transformation for Robust Pseudonymity against Backflow of Personal Information in SAML Federation
Yasu Okabe

11:30-12:00 Secure Monitoring for Identity Federations and Distributed Systems
Miguel Macias Enguidanos, Jaime Perez Crespo

METHOD 2012: The 1st IEEE International Workshop on Methods for Establishing Trust with Open Data
Chair: Florian Skopik
Location: Karşıyaka 3 (3rd floor)

10:00-10:15 Welcome Address
Eddard Höfling, Ina Schieferdecker

10:15-10:45 Linked Open Data Aggregation: Conflict Resolution and Aggregate Quality
Jin MICHELFEIT, Martin NECAS

10:45-11:15 Identification and Utilization of Components for a Linked Open Data Platform
Evanela Lapi, Nikolay Tcholtchev, Louay Bassouss, Florien Marienfeld, Ina Schieferdecker

11:15-11:45 Sensor Information Fueling Open Data
Miquel Oliver, Manuel Palacin, Albert Domingo, Victor Valls

IWSC 2012: The 9th IEEE International Workshop on Software Cybernetics
Session 2
Chair: Tugkan Tuglular, Izmir Institute of Technology, Turkey
Location: Konak 1 (3rd floor)
Evolution of a Software System across Design and Implementation Stages in Dynamically Changing Environments
Bhattacharjee Vogel, Arianit Kurtti, Marcelo Milrad, Tommi Mikkonen

A Graph Transformation Based Approach for Modeling Component Migration in Mobile Environments
Yu Zhou, Xuefeng Yan, Zhiqiu Huang

Jiangdong Wang, Yang Gao, Chun Cao, Li Wang

Learning-Based Multi-Controller Coordination for Self-Optimization
Richang Lin, Bihuan Chen, Yi Xie, Xin Peng, Wenyun Zhao

CFSE 2012: The 4th IEEE International Workshop on Computer Forensics in Software Engineering
Chair: Vinod Polpaya Bhattathiripad
Location: Konak 2 (3rd floor)
Invited Talk: Research and Development of IT Risk Communication Support System and Its Application to Digital Forensic Issues
Ryoichi Sasaki

Cloud Log Forensics Metadata Analysis
MVDA 2012: The 1st IEEE International Workshop on Modeling and Verifying Distributed Applications
Session 1: Algorithms and Platforms
Chair: Leila Jenni Ben Ayed
Location: Bergama 1 (3rd floor)
10:00-10:30 A Graphical Language to Integrate Process Algebra and State Machine Views for Specification and Verification of Distributed Real-Time Systems
Jinho On, Seujeong Woo, Moonkun Lee
10:30-11:00 A BPEL4WS Extension to Develop and Execute Grid Service Workflow Application
Yousra Bendaly Hlaoui, Leila Jenni Ben Ayed, Imen Ben Fradji, Abhlem Ben Younes
11:00-11:30 A Distributed and Coordinated Massive DDoS Attack Detection and Response Approach
Mohammad Karim Aroua, Belhassen Zouar

QUORS 2012: The 6th IEEE International Workshop on Quality Oriented Reuse of Software
Session 2: Reuse-Driven Design and Patterns
Chair: Xiaodong Liu
Location: Bergama 2 (3rd floor)
10:00-10:20 Towards Reuse-based Development for the On-Chip Distributed SoC Architecture
Moazam Fareed Niazi, Tiberiu Secoleanu, Hannu Tenhunen
10:20-10:40 Performance Comparison of Combined Collaborative Filtering Algorithms for Recommender Systems
Dilek Tapucu, Seda Kasap, Fatih Tekbacak
10:40-11:00 Simplifying the Design of Signature Workflow with Patterns
Hwai-Jung Hsu, Ming-Wei Tsai, Feng-Jian Wang
11:00-11:20 A New Cohesion Metric and Restructuring Technique for Object Oriented Paradigm
Mehmet Kaya, James W. Fawcett

REFS 2012: The 6th IEEE International Workshop on Requirements Engineering for Services
Session 2: RE for Services Adaptation and Evolution
Chair: Eric Yu
Location: Bergama 3 (3rd floor)
10:00-10:20 Viewpoints and Issues in Requirements Engineering for Services
Jolita Ralyte
10:20-10:40 A Goal-oriented Perspective on Approaches to Web Service Discovery
Assar Said, Souveyet Carine, Aljounmaa Kadan
11:00-11:20 Software Service Evolution: A Requirements Perspective
Feng-Lin Li, Lin Liu, John Mylopoulos
11:20-11:40 Representing Non-Functional Requirements on Services – A Case Study
Clotilde Rohleder

SAPSE 2012: The 4th IEEE International Workshop on Security Aspects in Processes and Services Engineering
Chair: Stelvio Cimato
Location: Petek Boardroom (3rd floor)
10:00-10:30 Modeling of A Posteriori Access Control in Business Processes
Mohamed Karim Aroua, Belhassen Zouar
10:30-11:00 Petri-net-based Modeling and Resolving of Black Hole Attack in WMN
Hejiao Huang, Qiang Zhou
11:00-11:30 Database as a Service: Towards a Unified Solution for Security Requirements
Mehammad Ali Hadavi, Morteza Noferesti, Rasool Jalili, Ernesto Damiani

STA 2012: The 4th IEEE International Workshop on Software Test Automation
Session 2: Agile Software Testing
Chair: Selma Tekir
Location: Didim (3rd floor)
10:00-10:45 Invited Talk: Asynchronous Software Testing
Robert Hierons
10:45-11:15 Strategies for Agile Software Testing Automation: An Industrial Experience
Elaine Collins, Arlo Dias-Neto, Vicente Lucena
Adaptive Agile Performance Modeling and Testing of Embedded Systems
Marek Stochel, Mariusz Wawrowski

SSS 2012: The 5th IEEE International Workshop on Service Science and Systems
Session 2: Service Marketing and Management
Chair: Yang Li
Location: Karsiyaka 1 (3rd floor)
13:30-14:00 GARSS: A Generic Annotation and Recommendation Services System for Digital Repositories
Xiaodong Huang, Yong Zhang, Chunxiao Xing
14:00-14:30 Material Hub: A Semantic Search Engine with Rule Reasoning
Sen Ma, Wen Zhao, Shikun Zhang, Hang Zhang
14:30-15:00 Integrated QoS Utility-Based Model for Cloud Computing Service Provider Selection
Maria Salama, Ahmed Shawish, Amir Zeid, Mohamed Kouta

MidArch 2012: The 6th IEEE International Workshop on Middleware Architecture in the Internet
Chair: Shigeaki Tanimoto
Location: Karsiyaka 2 (3rd floor)
13:30-14:00 Flexible Access Control Framework Considering IdP-side’s Authorization Policy in Roaming Environment
Toshihiko Watanabe, Shunichi Kinoshita, Junichi Yamato, Hideaki Goto, Hideaki Sone
14:00-14:30 Implementation and Evaluation of an OpenFlow-based Access Control System for Wireless LAN Roaming
Shunichi Kinoshita, Toshihiko Watanabe, Junichi Yamato, Hideaki Goto, Hideaki Sone
14:30-15:00 A Prototype of Network Failure Avoidance Functionality for SAGE Using OpenFlow
Tomoya Furuiuchi, Susumu Date, Hiroaki Yamanaka, Kohei Ichikawa, Hirotake Abe

METHOD 2012: The 1st IEEE International Workshop on Methods for Establishing Trust with Open Data
Chair: Nikolay Tcholtechev
Location: Karsiyaka 3 (3rd floor)
13:30-14:00 Automated Trust Estimation in Developing Open News Stories: Combining Memento & Provenance
Erik Mannens, Sam Coppens, Ruben Verborgh, Laurence Hauttekette, Davy Van Deursen, Rik Van de Walle
14:00-14:30 Privacy Preserving Data Publishing for Recommender System
Xiaojiqiang Chen, Vincent Huang

IWSC 2012: The 9th IEEE International Workshop on Software Cybernetics
Session 3
Chair: Xiaping Tao
Location: Konak 1 (3rd floor)
14:00-14:30 Distribution-aware Mutation Analysis
CFSE 2012: The 4th IEEE International Workshop on Computer Forensics in Software Engineering
Chair: Sean Thorpe
Location: Konak 2
A Proposal for Incorporating Programming Blunder as Important Evidence in Abstraction-Filtration-Comparison Test
Vinod Polpaya Bhattachiripad
Development of InfoVis Software for Digital Forensics
Grant Osborne, Benjamin Turnbull, Jill Slay

MVDA 2012: The 1st IEEE International Workshop on Modeling and Verifying Distributed Applications
Session 2: Emerging Techniques
Chair: Yousra Bendaly Hlaoui
Location: Bergama 1 (3rd floor)
13:30-14:00 UML AD Refinement Patterns for Modeling Workflow Applications
Ahlem Ben Younes, Leila Jenni Ben Ayed, Yousra Bendaly Hlaoui
14:00-14:30 An Efficient IPTV Distribution Technique under NAT Environment
Ming-Huang Chen, Yaw-Chung Chen, Wen-Kang Jia

QUORS 2012: The 6th IEEE International Workshop on Quality Oriented Reuse of Software
Chair: Feng-Jiang Wang
Location: Bergama 2 (3rd floor)
13:30-14:00 Performance Analysis of Reusable Components with Hybrid Modeling of Strategies and Processes
Sheau Ling Tan, Lin Liu
14:00-14:30 Translation Rules and a Supporting Tool for Model-based Reuse
Junfeng Zhao, Jian Tao Zhou
14:30-15:00 Parallel Software Reuse Driven CPN Model Reduction and Analysis Approach
Tao Sun, Xinming Ye, Hongji Yang, Jing Liu

REFS 2012: The 6th IEEE International Workshop on Requirements Engineering for Services
Session 3: RE for Non-functional Requirements
Chair: Lin Liu
Location: Bergama 3 (3rd floor)
Takao Okubo, Haruhiko Kiyai, Nobukazu Yoshikawa
13:50-14:10 Automated Reasoning with Goal Tree Models for Software Quality Requirements
Bo Wei, Zhi Jin, Didar Zowghi, Bin Yin
14:10-14:30 Improving Quality Software Requirements Specifications using Spectrum Analysis
Haruhiko Kiyai, Atsushi Ohnishi
14:30-14:50 The Concepts and Ontology of SISL: A Situation-Centric Specification Language
Haihua Xie, Carl K. Chang, Hua Ming, Kai-shin Lu
Jianchu Huang, Hongji Yang

SAPSE 2012: The 4th IEEE International Workshop on Security Aspects in Processes and Services Engineering
Chair: Stelvio Cimato
Location: Petek Boardroom (3rd floor)

STAA 2012: The 4th IEEE International Workshop on Software Test Automation
Session 3: Testing Mobile and Open Software
Chair: Marek Stochel
Location: Didim (3rd floor)
15:00-15:30 Afternoon Break – Smyrna Auditorium (5th floor)
15:30-17:00 Workshop Sessions

SSS 2012: The 5th IEEE International Workshop on Service Science and Systems
Session 3: Service Paradigms in Industry
Chair: Lin Liu
Location: Karşıyaka 1 (3rd floor)

MidArch 2012: The 6th IEEE International Workshop on Middleware Architecture in the Internet
Chair: Toru Kobayashi
Location: Karşıyaka 2 (3rd floor)

METHOD 2012: The 1st IEEE International Workshop on Methods for Establishing Trust with Open Data
Chair: Edzard Höfig
Location: Karşıyaka 3 (3rd floor)

METHODS 2012: The 1st IEEE International Workshop on Methods for Establishing Trust with Open Data
IWSC 2012: The 9th IEEE International Workshop on Software Cybernetics
Session 4
Chair: Feng-Jian Wang, National Chiao-Tung University, Taiwan
Location: Konak 1 (3rd floor)

Safe Regression Test Selection Based on Program Dependence Graphs
Jianchun Xing, Hongda Wang, Wei Song, Qiliang Yang
Panel: Future Directions of Software Cybernetics
Panelists: Tolka Aya, Izmir Institute of Technology, Turkey
Kai-Yuan Cai, BUAA, China
Xiangping Tao, Nanjing University, China

Chair: Rob Hierons
Session 4: Testing Large Systems
15:30-16:00

Panel: Requirements Engineering for Services
Mediator: Lin Liu
Panelists:
Colette Rolland
Eric Yu
Jolita Ralyté
Zhi Jin
Willem-Jan van den Heuvel

 mvda 2012: the 1st IEEE international workshop on modeling and verifying distributed applications
session 3: formal approaches
chairs: Ahlem Ben Younes
location: bergama 1 (3rd floor)

Chair: Robin Hichens
Session 4: Cloud Computing Services and QoS
15:30-16:00

A QoS Assurance Middleware Model for Enterprise Cloud Computing
Shou-Yu Lee, Dongyang Tang, Tingchao Chen, William Cheng-Chung Chu

Towards OWL 2 Natively Supported Fuzzy Cloud Ontology
Daren Fang, Xiaodong Liu, Imed Romdhani, Huiqun Zhao

SE-EQUAM – An Evolvable Quality Metamodel
Aseel Ihnood, Iman Keivanloo, Juergen Rilling

Chair: Lin Liu
Session 4: Cloud Computing Services and QoS
Location: Bergama 2 (3rd floor)

16:00-16:30

Towards OWL 2 Natively Supported Fuzzy Cloud Ontology
Daren Fang, Xiaodong Liu, Imed Romdhani, Huiqun Zhao

ST 2012: The 3rd IEEE International Workshop on Software Test Automation
Session 4: Testing Large Systems
Chair: Rob Hierons
Location: Didim (3rd floor)

Invited Talk: Recent Advances in Test Automation
Ina Schieferdecker

Mining Data Chain Graph for Fault Localization
Bo Yang, Ji Wu, Chao Liu

Effects of Class Imbalance in Test Suites: An Empirical Study of Spectrum-Based Fault Localization
Jianchun Xing, Hongda Wang, Wei Song, Qiliang Yang

Chair: Feng-Jian Wang, National Chiao-Tung University, Taiwan
Location: Konak 1 (3rd floor)

14:00-14:30

Chair: Kai-Yuan Cai, Beijing University of Aeronautics and Astronautics, China
Location: Bergama 1 (3rd floor)

Workload-Aware Online Anomaly Detection in Enterprise Applications with Local Outlier Factor
Tao Wang, Wenbo Zhang, Jun Wei, Hua Zhong

A Metrics-Based Data Mining Approach for Software Clone Detection
Salwa Abd-El-Hafiz

A Petri Nets-based Byzantine Fault Diagnosis Method for Service Composition
Guisheng Fan, Huiqun Yu, Lijiong Chen, Dongmei Liu

Software Testing I
Chair: Rajesh Subramanyan, Siemens Corporate Research, USA
Location: Bergama 2/3 (3rd floor)
Software Architecture and Design I
Chair: Wenbo Zhang, Chinese Academy of Sciences, China
Location: Didim (3rd floor)
Adaptive Explanation Architecture for Maintaining Human-Computer Trust
Florian Nothdurft, Gregor Bertrand, Helmut Lang, Wolfgang Minker
Quality-Driven Self-Adaptation: Bridging the Gap between Requirements and Runtime
Architecture by Design Decision
Liwei Shen, Xin Peng, Wenyun Zhao
A Rapid Development Framework for Multilingual Spoken Dialogue Systems
Masahiro Araki, Daisuke Takegoshi

15:00-15:30 Afternoon Break – Smyrna Auditorium (5th floor)
15:30-17:00 Parallel Sessions
Software Life Cycle, Evolution and Maintenance 3
Chair: Xiaodong Liu, Edinburgh Napier University, UK
Location: Konak I/2 (3rd floor)

Panel 2: Software Testing, Software Quality and Trust in Software-Based Systems
Location: Bergama I (3rd floor)
Panelists:
Tory Kobayashi, NTT, Japan
Robert Hieons, Brunel University, UK
Rajesh Subramanyan, Siemens Corporate Research, USA

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Software Architecture and Design 2
Chair: Fengjian Wang, National Chiao-Tung University, Taiwan
Location: Bergama 2/3 (3rd floor)
An Approach for Detecting Inconsistencies between Behavioral Models of the Software Architecture and the Code
Selin Ciraci, Hasan Sozer, Bedir Tekinerdogan
Fine-grained Design Pattern Detection
Maurice Lebon, Vassilios Tserpos
On the Proactive Design of Aspect-Oriented Product-Line Architectures: An Exploratory Study
William Oizumi, Antonio Contieri Junior, Guilherme Correia, Thelma Colanzi, Sandra Ferrari, Itana Gimenes, Edson Oliveira Junior, Alessandro Garcia, Paulo Cesar Masiero

Evening: COMPSAC/SAINT Conference Banquet (at Old Smyrna)

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**Wednesday July 18, 2012: Main Conference**

8:30-10:00  
**Joint Keynote Address**  
Ross Anderson, Professor, Cambridge, UK  
Session Chair: Elisa Bertino  

**Cyber Security: Threats Real and Imagined**  
Abstract: In the 1980s and 1990s, the Internet was a benign place, so we invented scary monsters such as the Dolev-Yao opponent or the global passive adversary and figured out how to protect systems against them. From the late 1990s we started to see real adversaries, from spammers to carders to online state actors. By 2000 systems had become so large and complex that we needed to invent security economics to reason about them. But economic models alone are not enough; we also need to know what the bad guys are doing, how much they’re making, and what it costs the rest of us. Much of what’s written on this is exaggerated, as vendors, policemen and intelligence agencies all have an incentive to talk up the threats. I will discuss some analysis we did for ENISA and more recently at the suggestion of the UK Ministry of Defence in which we try to get a more defensible set of numbers, as well as a better handle on what might go wrong in the future. The data are beginning to suggest that we are extremely inefficient at fighting cybercrime; we might place less emphasis on protection (firewalls, antivirus etc) and more on response – on hunting down the bad guys and putting them in jail.

10:00-10:30  
**Morning Break: Smyrna Auditorium (5th floor)**  
Poster session in Smyrna Auditorium will run 10:00-13:30

10:30-12:00  
**Parallel Sessions**

**Requirements Engineering**  
Chair: Lin Liu, Tsinghua University, China  
Location: Konak I/2 (3rd floor)

- **Development of Situational Requirements Engineering Processes: A Process Factory Approach**  
  Omid Jafarinezhad, Raman Ramsin
- **Software Product Line Engineering for Developing Self-adaptive Systems: Towards the Domain Requirements**  
  Liwei Shen, Xin Peng, Wenyun Zhao
- **Requirements Understanding: A Challenge in Global Software Development, Industrial Surveys in Kingdom of Saudi Arabia**  
  Mohammed A. Alnueem, Arshad Ahmad, Hashim Khan

**Panel 3: Creative Computing: Reconciling Objective Precision with Subjective Ambiguity**  
Location: Bergama I (3rd floor)

- **Chair: Hongji Yang, De Montfort University, UK**

  - Ruqian Lu - Academy of Mathematics and Systems Science, China  
    **Animated Computing Changes the Way and Style of Computer Application**
  - Andrew Hugill - De Montfort University, UK  
    **Challenges for Creative Computing**
  - Songmao Zhang - Chinese Academy of Sciences, China  
    **Using the Semantic Web Technologies to Support Automatic Animation**
  - Hong Zhu - Oxford Brookes University, UK  
    **Can Software Design Benefit from Creative Computing?**

**Formal Methods**  
Chair: Dianxiang Xu, Dakota State University, USA  
Location:Bergama 2/3 (3rd floor)

- **XMLSnippet: A Coding Assistant for XML Configuration Snippet Recommendation**  
  Sheng Huang, Yanghua Xiao, Yiqi Lu, Wei Wang, Yu Wang

- **Model-based Static Source Code Analysis of Java Programs with Applications to Android Security**  
  Zheng Lu, Supratik Mukhopadhyya
  - A Change Proposal Driven Approach for Changeability Assessment Using FCA-based Impact Analysis
  - XiaoBing Sun, Bixin Li, Qiandong Zhang
  - A Methodology for Building Effective Test Models with Function Nets
  - Dianxiang Xu, William Chu

**Fast Abstract**

Note time: 10:15-12:30  
Chair: Hirooyuki Sato, Tokyo University, Japan  
Location: Didim (3rd floor)

- **Paxos-Based Memory Data Replication in Stock Trading System**  
  Xiaodong Huang, Yong Zhang, Chunxiao Xing, Yinfei Huang, Jianfeng Wu, Shuo Bai
- **Using Program Dynamic Analysis for Weak Algorithm Detection**  
  Zakarya Alzamil
- **Requirement Patterns for Multicore Systems**  
  Arfan Mansoor, Detlef Streitferdt
- **Performance Evaluations of Vector-raster Satellite Image Transfers through Web Services**  
  Süleyman Eken, Ahmet Sayar
- **User Profiling for Policy Management in Social Communities**  
  Ökan Bursa, Özgür Can, Murat Osman Ünalır
- **On Capturing Effects of Modifications as Data Dependencies**  
  Hasan Ural, Hüsnu Yenigün
- **Accelerated Deterministic Multithreading for Multichannel Video Decoder**  
  Youngsam Shin, Minyoung Son, Seungwong Lee, Shihwa Lee
- **Image Analysis Using Machine Learning: Anatomical Landmarks Detection in Fetal Ultrasound Images**  
  Bahbibi Rahmatullah, Aris T. Papageorghiou, J. Alison Noble
- **Test Case Generation by Simulating Requirements Analysis Model**  
  Ryo Shikimi, Shinpei Ogata, Saeko Matsuura
- **Customer Churn Prediction for Telecom Services**  
  Utku Yabas, Hakki Candan Cankaya, Turker Ince
- **A Cluster-Based Core Protection Technique for Networks-on-Chip**  
  Khalid Latif, Amir-Mohammad Rahmani, Pasi Liljeborg, Hannu Tenhunen, Tiberiu Seceleanu
- **HCI Knowledge in Software Engineering Practices for Designing Interactive Maintenance Assistance Systems**  
  Samir Benbelkacem, N. Zenati-Henda, M. Belhocine, A. Bellarbi, M. Tadjine
- **An Intermediate Language for Semantic Exceptions in Context-Aware Systems**  
  Eun-Sun Cho, Sumi Helal
- **Doppel-Code: A Clone Visualization Tool for Prioritizing Global and Local Clone Impacts**  
  Juergen Rilling

**Poster Session (10:00-13:30)**  
Chair: Tolga Ayyat, Izmir Institute of Technology, Turkey  
Location: Smyrna Auditorium

- **WorldTour: Towards an Adaptive Software to Support Children with Autism in Tour Planning**  
  Felipe Rodrigues Monteiro Sousa, Thais Helena Chaves de Castro
- **Implementation and Evaluation of Commodity Hardware and Software in an Open World Spoken Dialog Framework**  
  Hareendra Manuru, Rajagopal Vasudevan, Ashok Sasidharan, Thomas Lynch, Seth Darbyshire, Sayajeet Raje, Rajiv Ramnath, Jayashree Ramanathan
Thursday July 19, 2012: Main Conference

8:30-10:00 Grand Efes Ballroom: Joint COMPSAC/SAINT Panel: Challenges Toward the Global Adoption of Cloud Computing
   Chair: Vladimir Getov, University of Westminster, UK
   Panels:
   C.C. William Chu, Tsinghua University, Taiwan
   William Claycomb, Carnegie Mellon University, USA
   George Strawn, Director of the National Coordination Office (NCO), USA
   Stephen Yau, Arizona State University, USA

10:00-10:30 Morning Break: Smyrna Auditorium (5th floor)
10:30-12:00 Parallel Sessions

Cloud Computing I
Chair: William R. Claycomb, Carnegie Mellon University, USA
Location: Konak I/2 (3rd floor)
   Paas-Oriented Performance Modeling for Cloud Computing
   Wenbo Zhang, Xiang Huang, Ningjiang Chen, Wei Wang, Hua Zhong
   Event Indexing and Searching for High Volumes of Event Streams in the Cloud
   Miao Wang, Viliam Holub, John Murphy, Patrick O’Sullivan
   Demystifying Cloud Benchmarking Paradigm: An In-depth View
   Venugopalan Vedam, Jayanti Vemulapati

Web-Based System
Chair: Weider Yu, San Jose State University, USA
Location: Bergama I (3rd floor)
   An Evaluation Model for Dependability of Internet-scale Software on Basis of Bayesian Networks
   Guannan Si, Jufeng Yang, Jing Xu, Shuo Wen, Wei Tian
   Deriving Specifications for Composite Web Services
   George Baryannis, Manuel Carro, Dimitris Plexousakis

Applications I
Chair: Ying Cai, Iowa State University, USA
Location: Bergama 2/3 (3rd floor)
   Americans With Disabilities Act - Compliance Assessment Toolkit on Smartphone
   Mohammad Tanviruzzaman, Rizwana Rizia, Sheikh Iqbal Ahamed, Roger Smith
   Automatic Data Clustering Analysis of Arbitrary Shape with K-means and Enhanced Ant-based Template Mechanism
   Wei Zhang, Han-i Yang, Hsin-yi Jiang, Carl K. Chang
   Applying Knowledge Elicitation to Improve Web Effort Estimation: A Case Study
   Emilia Mendes, Manar AbuTalib, Steve Counsell

Industry Track
Chair: M. Erdal Balaban, Isik University, Turkey
Location: Smyrna Auditorium 2 (5th floor)
   Architecturing Business Intelligence for SMEs
   Ayşe Eser Baransel, Cesur Baransel
   Agile Adoption Story from NHN
   Eunha Kim, Seokmoon Ryoo
Educational Activity Finder for Children with Pervasive Developmental Disorder through a Semantic Search System
Duygu Çelik, Attila Elçi, Eray Elveric, Necati İnan
A Scalable Physical Memory Allocation Scheme for L4 Microkernel
Chen Tian, Daniel Waddington, Jilong Kuang
Model Driven Software Development for Military Command and Control Systems
Burak Çiftlikli, Onur Özcan, Ahmet Bora Uysal

Panel 4: Cross-sectoral Challenging Objectives for Achieving Trustworthy Software
Location: Didim (3rd floor)
Chair: Baris Sarialioglu, Yapı Kredi Bank, Turkey
Panelists:
Ahmet Duran - Huawei Technologies, Turkey
Murat Lostar - ISACA, Turkey
Koray Yitmen - Turkish Testing Board, Turkey
Dr. Masood Mortazavi - Yahoo, USA

Doctoral Symposium: Presentation Session
Location: Karşıyaka 3
Understanding Socio-technical Factors Influencing Testers in Software Development Organizations
Anca Deak

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

Cloud Computing Security Tutorial
With William R. Claycomb, Carnegie Mellon University, USA
Location: Smyrna Auditorium (5th floor)

Cloud Computing 2
Chair: William Chu, Tunghai University, Taiwan
Location: Konak (3rd floor)

CASVID: Application Level Monitoring for SLA Violation Detection in Clouds
Vincent C. Emeakaroha, Tiago C. Ferreto, Marco A. S. Netto, Ivona Brandic, Cesar A. F. De Rose
P-Tracer: Path-based Performance Profiling in Cloud Computing Systems
Haibo Mi, Huaimin Wang, Hua Cai, Yangfan Zhou, Michael Lyu, Zhenbang Chen
A Solution For Privacy Protection In MapReduce
Quang Tran, Hiroyuki Sato

Smart and Semantic Computing
Chair: Juergen Rilling, Concordia University, Canada
Location: Bergama I (3rd floor)

Using Semantic Web Technologies for RBAC in Project Oriented Environments
Satyajeet Raje, Chowdary Davuluri, Micheal Freitas, Rajiv Ramnath, Jay Ramanathan
The RDFa Content Editor – From WYSIWYG to WYSIWYM
Ali Khalili, Sören Auer
Semantic Web – The Missing Link in Global Source Code Analysis?
Iman Keivanloo, Juergen Rilling, Philippe Charland
Enriching the DBpedia Ontology with Shared Conceptualizations from Folksonomies
Sana Hamdi, Aida Gancarski, Amel Bouzeghoub, Sadok Ben Yahia

Applications 2
Chair: Sheikh Iqbal Ahamed, Marquette University, USA
Location: Bergama 2/3 (3rd floor)

Novel Energy Saving Opportunities in Smart Grids using a Secure Social Networking Layer
Florian Skopik, Christian Wagner
Privacy-Preserving Data Publishing for Free Text Chinese Electronic Medical Records
Lei Chen, Ji-Jiang Yang, Qing Wang
Disease-disease relationships for rheumatic diseases
Andreas Holzinger, Klaus-Martin Simonic, Pınar Yıldırım
A privacy-preserving cloud computing system for creating participatory noise maps
George Drosatos, Pavlos S. Efraimidis, Ioannis N. Athanasiadis, Ellie D’Hondt, Matthias Stevens

HCl and Usability
Chair: Masahiro Araki, Kyoto Institute of Technology, Japan
Location: Didim (3rd floor)

Influence of Anchor Management on Anchored Navigation in Mobile Maps
Rodrigo Maués, Eduardo Nakamura, Simone D.J. Barbosa
Study of Fractal Color Image Compression using YUV components
Eman Al-Hilo, Loay Goerge
STREAM-ADD: Supporting the Documentation of Architectural Design Decisions in an Architecture Derivation Process
Diego Dermeval, João Pimentel, Carla Silva, Jaelson Castro, Emanuel Santos, Gabriela Guedes, Márcia Lucena, Anthony Finkelstein

Doctoral Symposium: Poster Session
Location: Karşıyaka 3
Understanding Socio-technical Factors Influencing Testers in Software Development Organizations
Anca Deak

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

Panel 5: Cloud Computing for Developing Countries
Location: Didim (3rd floor)
Chair: Tugkan Tuglular, Izmir Institute of Technology, Turkey
Panelists:
Tugkan Tuglular, Izmir Institute of Technology, Turkey
Rajesh Subramanjan – Siemens Corporate Research, US
Kivanc Uslu – IBM Turkey, Turkey
Yong Zhang, Tsinghua University, China

Mobile & Pervasive Computing
Chair: Sumi Helal, Univ of Florida, USA
Location: Bergama I (3rd floor)

Simulating Power Consumption of Location Tracking Algorithms to Improve Energy-efficiency of Smartphones
Ulrich Bareth
KnockAround: Location Based Service via Social Knowledge
Rizwana Rizia, Mohammad Tanviruzzaman, Sheikh Iqbal Ahamed
ConsView: Towards Application-specific Consistent Context Views
Haibin Yang, Chang Xu, Xiaoting Ma, Linghao Zhang, Chun Cao, Jian Lu
Applications 3 (Education)
Chair: W.K. Chan, City University of Hongkong, Hong Kong
Location: Bergama 2/3 (3rd floor)

An Agent-based Application to Enable Deregulated Energy Markets
Nicola Capodieci, Andrea Pagani, Giacomo Cabri, Marco Aiello

Teaching Software Engineering in Developing Countries: A Position Paper
Rasha Osman

Leveraging 24/7 Availability and Performance for Distributed Real-time Data Warehouses
Ricardo Jorge Santos, Jorge Bernardino, Marco Vieira

Real-Time and Embedded System
Chair: Tiberiu Seceleanu, ABB Corporate Research, Sweden
Co-chair: Khalid Latif, University of Turku, Finland
Location: Konak I (3rd floor)

Specification Mutation Analysis for Validating Timed Testing Approaches Based on Timed Automata
Mohammad Aboutrab, Steve Counsell, Robert Hierons

Automatic RT-Java code generation from AADL models for ARINC653-based avionics software
Ying Wang, Dianfu Ma, Yongwang Zhao, Lu Zou, Xianqi Zhao

Scheduling and analysis of real-time software families
Hamideh Sabouri, Mohammad Mahdi Jaghoori, Frank de boer, Ramtin Khosravi

Workshop Sessions: Friday July 20

IEESD 2012: The 4th IEEE International Workshop on Industrial Experience in Embedded Systems Design
TIP 2012: The 1st IEEE International Workshop on Tools in Embedded Systems Design Process
Chair: Detlef Streitferdt
Location: Konak 1 (3rd floor)

10:00-10:30 Load Balancing for Cross Layer Communication
John F. Schommer, Dominik Franke, Tim Lange, Stefan Kowalewski
10:30-11:00 Development of a Mobile Platform to Support Building Maintenance Engineering
Paul Stack
11:00-11:30 An Estimation Model for the Savings Achievable by Tool Chains
Matthias Biehl, Martin Törngren

CORCS 2012: The 4th IEEE International Workshop on Component-Based Design of Resource-Constrained Systems
Chair: Tiziana Margaria
Location: Konak 2

10:00-10:30 Performance Awareness in Component Systems: Vision Paper
Lubomir Bulej, Tomas Bures, Vojtech Horky, Jaroslav Kezník, Petr Tuma
10:30-11:00 Understanding the Role of Transmission Power in Component-Based Architectures for Adaptive WSN
Guillermo Rodríguez-Navas, Miquel A. Ribot, Bartomeu Alorda
11:00-11:30 Tool-supported Methodology for Component-based Design of Wireless Sensor Network Applications
Steffen Peter, Peter Langendoerfer

STPSA 2012: The 7th IEEE International Workshop on Security, Trust, and Privacy for Software Applications
Chair: Lorenzo Martino
Location: Bergama 1 (3rd floor)

Branch Obfuscation using Code Mobility and Signals
Zhi Wang, Chunfu Jia, Min Liu, Xiaoxu Yu
Detection of Buffer Overflow Vulnerabilities in C/C++ with Pattern based Limited Symbolic Evaluation
Sun Ding, Hee Beng Kuan Tan, Kaiping Liu, Hong Yu Zhang, Chandramohan Mahinthan
Towards a Secure Software Development Lifecycle with SQUARE+R
Weider Yu, Kyle Le

ESAS 2012: The 7th IEEE International Workshop on Engineering Semantic Agent Systems
Chair: R. Cenk Erdur
Location: Bergama 2 (3rd floor)

Conditional Ontology Mapping
Islam Egedawy
Integration of 3D Trajectory Maps into a Local Distribution Map of Radiation Dose Using Unmanned Aerial Vehicle
Katsunori Oyama, Hiroyuki Wakabayashi, Atsushi Takeuchi, Naoki Ishitsuka
A Load Balancing Scheme for Distributed Simulation based on Multi-Agent System
Young Joon Lee, Geon Yong Park, Ho Kuen Song, Hee Yong Youn
The Semantics of the Interaction between Agents and Web Services on the Semantic Web
Sinem Getir, Moharram Challenger, Sebda Demirkol, Geylani Kardas

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

IEESD 2012: The 4th IEEE International Workshop on Industrial Experience in Embedded Systems Design
TIP 2012: The 1st IEEE International Workshop on Tools in Embedded Systems Design Process  
Chair: Tiberiu Seceleanu  
Location: Konak 1 (3rd floor)

13:30-14:00  
GcLite: An Expert Tool for Analyzing Garbage Collection Behavior  
Vasileios Angelopoulos, Trevor Parsons, John Murphy, Patrick O’Sullivan

14:00-14:30  
Integration and Analysis of Design Artefacts in Embedded Software Development  
Daniel Merschen, Julian Pott, Stefan Kowalewski

14:30-15:00  
Product Line Variability Model Construction based on Model Difference  
Kunming Nie

CORCS 2012: The 4th IEEE International Workshop on Component-Based Design of Resource-Constrained Systems  
Chair: Tiziana Margaria  
Location: Konak 2 (3rd floor)

13:30-14:00  
Extending EAST-ADL for Modeling and Analysis of System’s Resource-Usage  
Raluca Marinescu, Eduard Paul Enou

14:00-14:30  
Modelling the design for an SOA System to Control a Small Scale Energy Zone  
Maria Anjum, David Budgen

14:30-15:00  
Rule Based Axiomatic Design Theory Guidance for Software Development  
Cengiz Topay, Emre Selman Canliaz, Ali Hikmet Dogru

STPSA 2012: The 7th IEEE International Workshop on Security, Trust, and Privacy for Software Applications  
Chair: Chunfu Jia  
Location: Bergama 1 (3rd floor)

Internet-Based Evaluation and Prediction of Web Services Trustworthiness  
Meng Li, Zhebang Hua, Junfeng Zhao, Bing Xie

On Security Analysis of PHP Web Applications  
David Hauzer, Jan Kofroh

Measuring the Adequacy of Software Security Requirements Engineering  
Nancy Mead

ESAS 2012: The 7th IEEE International Workshop on Engineering Semantic Agent Systems  
Chair: Behnam Rahmana  
Location: Bergama 2 (3rd floor)

Integrating Linked Data Space with Agents Using the Environment Abstraction  
Riza Cenk Erdur, Oğuz Dikenelli, Oylum Alatlı, Erdem Eser Ekinci, Ziya Akar

An Image Processing Approach to Solve Labyrinth Discovery Robotics Problem  
Behnam Rahmana, Atilla Elçi, Shadi Metani

Development of Semantic Model and Information Exploration System for TV Media  
Duygu Celik, Atilla Elçi, Esra Calik, Ayman Ahmad Khalil

15:00-15:30  
Afternoon Break

STPSA 2012: The 7th IEEE International Workshop on Security, Trust, and Privacy for Software Applications  
Chair: Kaiping Liu  
Location: Bergama 1 (3rd floor)

Attack Model Based Penetration Test for SQL Injection Vulnerability  
Wei Tian, Ju-Feng Yang, Jing Xu, Guan-Nan Si

An Efficient Graph Codec System for Software Watermarking  
Maria Chroni, Stavros Nikolopoulos

A Certificate Based Context Aware Access Control Model for Smart Mobile Devices in Ubiquitous Computing Environments  
Davut Cevdar, Ahmet Yortanli, Pekin Erhan Eren, Altan Kocyigit

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