

2015 IEEE 24th International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises

(WETICE 2015)

**Larnaca, Cyprus
15-17 June 2015**



**IEEE Catalog Number: CFP15051-POD
ISBN: 978-1-4673-7693-8**

2015 IEEE 24th International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises

WETICE 2015

Table of Contents

Message from General Chair.....	x
Message from Program Chairs.....	xi
Message from Steering Committee Chair.....	xii
Conference Organization.....	xiii
ACEC 2015 Track Organization.....	xiv
AROSA 2015 Track Organization.....	xv
CDCGM 2015 Track Organization.....	xvii
CPS 2015 Track Organization.....	xviii
CSP 2015 Track Organization.....	xix
FISA 2015 Track Organization.....	xx
FVSBS 2015 Track Organization.....	xxi
MADYNE 2015 Track Organization.....	xxii
VSC 2015 Track Organization.....	xxiii
Web2Touch 2015 Track Organization.....	xxiv

ACEC 2015: Adaptive Computing (and Agents) for Enhanced Collaboration

ACEC 2015 Track Report: Adaptive Computing (and Agents) for Enhanced Collaboration	1
<i>Federico Bergenti, M. Brian Blake, Giacomo Cabri, and Usman Wajid</i>	
Engineering Self-Adaptive Systems with the Role-Based Architecture of Helena	3
<i>Annabelle Klarl</i>	

Collaborative Infrastructure for On-Demand Crowdsourced Tasks	9
<i>Julian Jarrett and M. Brian Blake</i>	

A Semantic Framework for Modeling Adaptive Autonomy in Task Allocation in Robotic Fleets	15
<i>Domagoj Drenjanac, Slobodanka Dana Kathrin Tomić, and Eva Kühn</i>	

AROSA 2015: Adaptive and Reconfigurable Service-Oriented and Component-Based Applications and Architectures

AROSA 2015 Track Report: Adaptive and Reconfigurable Service-Oriented and Component-Based Applications and Architectures	21
<i>Slim Kallel, Ismael Bouassida Rodriguez, and Mohamed Jmaiel</i>	

A Mechanism for the Causal Ordered Set Representation in Large-Scale Distributed Systems	23
<i>Houda Khlif, Hatem Hadj Kacem, Saúl E. Pomares Hernandez, and Ahmed Hadj Kacem</i>	

Formal Modeling for Verifying SCA Dynamic Composition with Event-B	29
<i>Aida Lahouij, Lazhar Hamel, and Mohamed Graiet</i>	

Towards a Provisioning Algorithm for Dynamic Workflows in the Cloud	35
<i>Fairouz Fakhfakh, Hatem Hadj Kacem, and Ahmed Hadj Kacem</i>	

Collaborative Autonomic Container for the Management of Component-Based Applications	41
<i>Nabila Belhaj, Imen Ben Lahmar, Mohamed Mohamed, and Djamel Belaïd</i>	

Modeling Change Patterns for Impact and Conflict Analysis in Event-Driven Architectures	44
<i>Simon Tragatschnig and Uwe Zdun</i>	

CDCGM 2015: Convergence of Distributed Clouds, Grids and their Management

CDCGM 2015 Track Report: Convergence of Distributed Clouds, Grids and their Management	47
<i>Fabrizio Messina, Rao Mikkilineni, and Giovanni Morana</i>	

Cognitive Application Area Networks: A New Paradigm for Distributed Computing and Intelligent Service Orchestration	51
<i>Rao Mikkilineni, Giovanni Morana, and Daniele Zito</i>	

MAROQ: A Resource Allocation Model Driven through Quality of Experience	57
<i>André Luiz Tinassi D' Amato, Mario Antonio Ribeiro Dantas, and Douglas D.J. de Macedo</i>	

Cloud Service Matchmaking Using Constraint Programming	63
<i>Begüm Ilke Zilci, Mathias Slawik, and Axel Küpper</i>	

Monitoring List for Compute Infrastructure in Eucalyptus Cloud	69
<i>Aparna Datt, Anita Goel, and S.C. Gupta</i>	
Load Index Characterization: The Scientific Challenge and a Survey Approach	72
<i>Guilherme Maciel Ferreira and Mario Antonio Ribeiro Dantas</i>	
Clustering EU's Countries According to I. Th. Mazi's Systemic Geopolitical Theory Using K-Means and MPI	78
<i>Ilias K. Savvas, Alekos Stogiannos, and Ioannis Th. Mazis</i>	
A Self-Optimized Storage for Distributed Data as a Service	84
<i>Klaithem Al Nuaimi, Nader Mohamed, Mariam Al Nuaimi, and Jameela Al-Jaroodi</i>	
Understanding the Effect of Multiple Factors on a Parallel File System's Performance	90
<i>Eduardo Camilo Inacio, Laércio Lima Pilla, and Mario Antonio Ribeiro Dantas</i>	
REST-Based SLA Management for Cloud Applications	93
<i>Alessandra de Benedictis, Massimiliano Rak, Mauro Turtur, and Umberto Villano</i>	
An Evolutionary Approach for Cloud Learning Agents in Multi-cloud Distributed Contexts	99
<i>Antonello Comi, Lidia Fotia, Fabrizio Messina, Giuseppe Pappalardo, Domenico Rosaci, and Giuseppe M.L. Sarné</i>	
Contrology - An Ontology-Based Cloud Assurance Approach	105
<i>Ulrich Koinig, Simon Tjoa, and Jungwoo Ryoo</i>	
A Reputation-Based Approach to Improve QoS in Cloud Service Composition	108
<i>Antonello Comi, Lidia Fotia, Fabrizio Messina, Giuseppe Pappalardo, Domenico Rosaci, and Giuseppe M.L. Sarné</i>	
 CPS 2015: Capacity Driven Processes and Services for Cyber Physical Society	
CPS 2015 Track Report: Cyber Physical Society	114
<i>Walid Gaaloul, Joaquin Ezpeleta, Zhanbing Zhou, and Mahmoud Barhamgi</i>	
A Decision-Oriented Approach Supporting Enterprise Architecture Evolution	116
<i>Khaled Gaaloul and Sérgio Guerreiro</i>	
Analyzing Social Web Services' Capabilities	122
<i>Zakaria Maamar, Hamdi Yahyaoui, Azzam Mourad, and Mohamed Sellami</i>	
A Semantic Similarity Measure for Conceptual Web Services Classification	128
<i>Ahmed Abid, Nizar Messai, Mohsen Rouached, Thomas Devoegele, and Mohamed Abid</i>	
ATP: An Aggregation and Transmission Protocol for Conserving Energy in Periodic Sensor Networks	134
<i>Hassan Harb, Abdallah Makhoul, Raphaël Couturier, and Maguy Medlej</i>	

Privacy-Aware Cloud Services Composition	140
<i>Samer Abdul Ghafour, Parisa Ghodous, and Christine Bonnet</i>	

CSP 2015: Collaborative Software Processes

CSP 2015 Track Report: Collaborative Software Processes	143
<i>Yassine Jamoussi and Bernard Coulette</i>	
Role Framework to Support Collaborative Virtual Prototyping of System of Systems	144
<i>Jean-Philippe Schneider, Joël Champeau, Loic Lagadec, and Eric Senn</i>	
Collaborative Enterprise Applications Based on Business and Social Artifacts	150
<i>Zakaria Maamar, Vanilson Burégio, and Mohamed Sellami</i>	
Impact Analysis of Process Change at Run-Time	156
<i>Mojtaba Hajmoosaei, Hanh-Nhi Tran, Christian Percebois, Agnes Front, and Claudia Roncancio</i>	

FISA 2015: Future Internet Services and Applications (formerly PASCs and PROMASC)

FISA 2015 Track Report: Future Internet Services and Applications	162
<i>Hatem Hadj Kacem, Anderson Santana de Oliveira, Mohamed Sellami, and Sylvain Lefebvre</i>	
Models and Adaptive Architecture for Smart Data Management	164
<i>Pierre de Vettor, Michael Mrissa, and Djamel Benslimane</i>	
Towards an Architecture for End-to-End-Encrypted File Synchronization Systems	170
<i>Christian Hoffmann, Christoph Brand, and Steffen Heinzl</i>	
Managing Web Resource Compositions	176
<i>Mahdi Bennara, Youssef Amghar, and Michael Mrissa</i>	

FVSBS 2015: Formal Verification of Service Based Systems

FVSBS 2015 Track Report: Formal Verification of Service Based Systems	182
<i>Mohamed Graiet and Kais Klai</i>	
Integrating the SysML and ACME in a Model Driven Engineering Approach to Verify the Web Service Composition	183
<i>Raoudha Maroui and Bechir Ayeb</i>	

MADYNE 2015: Management of Dynamic Networked Enterprises

MADYNE 2015 Track Report: Management of Dynamic Networked Enterprises	190
<i>Nawal Guermouche and Said Tazi</i>	
CDLVT: A Formal Verification Tool of Non-functional Properties for WS-CDL Specification	191
<i>Sirine Rebai, Hatem Hadj Kacem, Mohamed Karâa, Saul E. Pomares, and Ahmed Hadj Kacem</i>	

VSC 2015: Validating Software for Critical Systems

VSC 2015 Track Report: Validating Software for Critical Systems	197
<i>Andrea Calvagna and Emiliano Tramontana</i>	
Non-deterministic Timed Pushdown Automata-Based Testing Evaluated by Mutation	198
<i>M'Hemdi Hana, Jacques Julliand, Pierre-Alain Masson, and Riadh Robbana</i>	
Equivalence-Based Selection of Best-Fit Models to Support Wiki Design	204
<i>Giuseppe de Ruvo and Antonella Santone</i>	
Probabilistic Formal Verification Methodology for Decentralized Thermal Management in On-Chip Systems	210
<i>Shafaq Iqtedar, Osman Hasan, Muhammad Shafique, and Jörg Henkel</i>	

Web2Touch 2015: Modeling the Collaborative Web Knowledge

Web2Touch 2015 Track Report: Modeling the Collaborative Web Knowledge	216
<i>Olga Nabuco, Rodrigo Bonacin, and Mariagrazia Fugini</i>	
RAMIRES: Risk Adaptive Management in Resilient Environments with Security	218
<i>Mariagrazia Fugini and Mahsa Teimourikia</i>	
Analysing Wiki Quality Using Probabilistic Model Checking	224
<i>Giuseppe de Ruvo and Antonella Santone</i>	
An Entity-Driven Approach to Web Resource Clustering and Exploration	230
<i>Silvana Castano, Alfio Ferrara, and Stefano Montanelli</i>	
Towards Ontology-Enabled BioContexts for Bioinformatics Research	236
<i>Nicoletta Dessì, Giuliano Ferrentino, Emanuele Pascariello, and Barbara Pes</i>	
Expressivity and Accuracy of By-Example Structured Queries on Wikipedia	239
<i>Maurizio Atzori and Carlo Zaniolo</i>	
Author Index	245