JCSOC 2014

12th International Conference on **Service Oriented Computing**

Paris, 3-6 November 2014

















COMMITTEES	04
KEYNOTES	08
WORKSHOPS	10
DDIEE DDOODANA	200
BRIEF PROGRAM	20
Main Conference ICSOC 2014	
TUESDAY, 04	21
WEDNESDAY , 05	24
THURSDAY, 06	27
Workshops	
CCSA	31
KASA	32
RMSOC	33
FOR-MOVES	35
SeMaPS	36
ISC	37
WESOA	38
PhD Symposium	39
Workshops Reception	40
Conference Social Event	
Conference Plan	
Wifi Access	

ORGANIZATION COMMITTEE

GENERAL CHAIR

Samir Tata, Télécom SudParis, France

PROGRAM CO-CHAIRS

Xavier Franch, Universitat Politècnica de Catalunya, Spain Aditya Ghose, University of Wollongong, Australia Grace Lewis, Carnegie Mellon Software Engineering Institute, USA

WORKSHOPS CO-CHAIRS

Farouk Toumani, Blaise Pascal University, France Barbara Pernici, Politecnico di Milano, Italy Daniela Grigori, University of Paris Dauphine, France

STEERING COMMITTEE

Bernd Krämer, FernUniversität in Hagen, Germany
Boualem Benatallah, UNSW, Australia
Fabio Casati, University of Trento, Italy
Heiko Ludwig, IBM Research, USA
Jian Yang, Macquarie University, Australia
Liang Zhang, Fudan University, China
Mike Papazoglou, Tilburg University, The Netherlands - acting Chair
Winfried Lamersdorf, University of Hamburg, Germany

STEERING COMMITTEE LIAISON

Boualem Benatallah, University of New South Wales, Australia

ADVISORY BOARD

Paco Curbera, IBM Research, USA Paolo Traverso, ITC-IRST, Italy

PANEL CO-CHAIRS

Marlon Dumas, University of Tartu, Estonia Henderik A. Proper, Henri Tudor Center, Luxembourg Hong-Linh Truong, Vienna University of Technology, Austria

PHD SYMPOSIUM CO-CHAIRS

Djamal Benslimane, Claude Bernard University of Lyon 1, France Jan Mendling, WU Vienna, Austria Nejib Ben Hadj-Alouane, ENIT, Tunisia

DEMONSTRATION PROGRAM CO-CHAIRS

Brian Blake, University of Miami, USA
Olivier Perrin, University of Lorraine, France
Iman Saleh Moustafa, University of Miami, USA

PUBLICATION CHAIR

Sami Bhiri, Télécom SudParis, France

PUBLICITY CO-CHAIRS

Hanan Lutfiyya, University of Western Ontario, Canada ZhangBing Zhou, China University of Geosciences, China Kais Klai, University of Paris 13, France

WEB CHAIRS

Mohamed Sellami, RDI Group, LISITE LAB, ISEP Paris, France Nguyen Ngoc Chan, LORIA, France

LOCAL ORGANIZING CO-CHAIRS

Walid Gaaloul, Télécom SudParis, France Daniela Grigori, University of Paris Dauphine, France

LOCAL ORGANIZATION COMMITTEE MEMBERS

Brigitte Houassine, Télécom SudParis, France Mourad Amziani, Télécom SudParis, France Nour Assy, Télécom SudParis, France Fethi Belghaouiti, Télécom SudParis, France Emna Hachicha, Télécom SudParis, France Mohamed Mohamed, Télécom SudParis, France Zahra Movahedi, Télécom SudParis, France Rami Sellami, Télécom SudParis, France Sami Yangui, Télécom SudParis, France Karn Yongsiriwit, Télécom SudParis, France Rafael Angarita, University of Paris Dauphine, France Khalid Belhajjame, University of Paris Dauphine, France Joyce El Haddad, University of Paris Dauphine, France Amine Louati, University of Paris Dauphine, France Maude Manouvrier, University of Paris Dauphine, France Mohamed Lamine Mouhoub, University of Paris Dauphine, France

PROGRAM COMMITTEE

SENIOR PC MEMBERS

Samik Basu, USA
Boualem Benatallah, Australia
Athman Bouguettaya, Australia
Fabio Casati, Italy
Flavio De Paoli, Italy
Schahram Dustdar, Austria
Mohand-Said Hacid, France
Lin Liu, China
Heiko Ludwig, United States
Michael Maximilien, United States

Cesare Pautasso, Switzerland Barbara Pernici, Italy Gustavo Rossi, Argentina Michael Q. Sheng, Australia Stefan Tai, Germany Zahir Tari, Australia Mathias Weske, Germany Jian Yang, Australia Liang Zhang, China

PC MEMBERS

Rafael Accorsi, Germany Rama Akkiraju, United States Alvaro Arenas. Spain Ebrahim Bagheri, Canada Luciano Baresi, Italy Alistair Barros, Australia Khalid Belhajjame, France Salima Benbernou, France Sami Bhiri, France Domenico Bianculli, Luxembourg Walter Binder, Switzerland Omar Boucelma, France Ivona Brandic, Austria Christoph Bussler, United States Manuel Carro, Spain Wing-Kwong Chan, Hong Kong Shiping Chen, Australia Lawrence Chung, United States Florian Daniel, Italy Shuiguang Deng, China Khalil Drira, France Abdelkarim Erradi, Qatar Rik Eshuis, Netherlands Marcelo Fantinato, Brazil Marie-Christine Fauvet, France Joao E. Ferreira. Brazil Walid Gaaloul, France G.R. Gangadharan, India Dragan Gasevic, Canada Paolo Giorgini, Italy Claude Godart, France

Mohamed Graiet, Tunisia Sven Graupner, United States Daniela Grigori. France Jun Han. Australia Peng Han, China Bernhard Holtkamp, Germany Fuyuki Ishikawa, Japan D. Janakiram, India Hai Jin, China Dimka Karastoyanova, Germany Hamamache Kheddouci. France Kais Klai, France Ryan Ko, New Zealand Gerald Kotonya, United Kingdom Radha Krishna Pisipati. India Patricia Lago, Netherlands Frank Leymann, Germany Ying Li, China Xumin Liu, United States Allesio Lomuscio, UK Zaki Malik, United States Massimo Mecella, Italy Lars Moench, Germany Marco Montali, Italy Michael Mrissa, France Nanjangud Narendra, India Surva Nepal, Australia Srinivas Padmanabhuni, India Helen Paik, Australia Fabio Patrizi, Italy Olivier Perrin, France

COMMITTEES

Marco Pistore, *Italy* Pascal Poizat, France Artem Polyvyanyy, Australia Karthikeyan Ponnalagu, India Mu Qiao, USA Manfred Reichert, Germany Wolfgang Reisig, Germany Hamid Reza Motahari-Nezhad, United States Colette Roland, France Antonio Ruiz-Cortes, Spain Diptikalyan Saha, India Jun Shen, Australia Larisa Shwartz, United States Ignacio Silva-Lepe, United States **Sergey Smirnov**, *Germany*

George Spanoudakis, United Kingdom Jianwen Su, USA Giordano Tamburrelli, Switzerland Roman Vaculin, United States Guiling Wang, China Jianwu Wang, United States Yan Wang, Australia Zhongjie Wang, China Ingo Weber, Australia Lai Xu, United Kingdom Yuhong Yan, Canada Jian Yu, New Zealand Qi Yu, United States Weiliang Zhao, Australia Yan Zheng, Finland Andrea Zisman, United Kingdom

Nov. 04, 2014

Rigorous System Design

We advocate rigorous system design as a coherent and accountable model-based process leading from requirements to implementations. We present the state of the art in system design, discuss its current limitations, and identify possible avenues for overcoming them. A rigorous system design flow is defined as a formal accountable and iterative process composed of steps, and based on four principles: (1) separation of concerns; (2) component-based construction; (3) semantic coherency; and (4) correctness-byconstruction. We show that the combined application of these principles allows the definition of rigorous design flows clearly identifying where human intervention and ingenuity are needed to resolve design choices, as well as activities that can be supported by tools to automate tedious and error-prone tasks. An implementable system model is progressively derived by source-to-source automated transformations in a single host component-based language rooted in well-defined semantics. Using a single modeling language throughout the design flow enforces semantic coherency. Correct-byconstruction techniques allow well-known limitations of a posteriori verification to be overcome and ensure accountability. It is possible to explain, at each design step, which among the requirements are satisfied and which may not be satisfied.

The presented view has been amply implemented in the BIP (Behavior, Interaction, Priority) component framework and substantiated by numerous experimental results showing both its relevance and feasibility. We show in particular, how distributed implementations can be generated from BIP models with multiparty interactions by application of correct-by-construction transformations



Joseph Sifakis is a Greek-born French computer scientist, laureate of the 2007 Turing Award, along with Edmund M. Clarke and E. Allen Emerson, for his work on model checking. He was born in Heraklion, Crete in 1946 and studied Electrical Engineering at the National Technical University of Athens and Computer Science at the University of Grenoble under a French scholarship. He received a doctorate in 1974 from the University of Grenoble, where he also received a state doctorate in 1979. He was awarded in 2009 a Dr. h.c. from the École Polytechnique Fédérale de Lausanne, Switzerland, where he has been appointed Full Professor in 2011 (at the School of Computer and Communication Sciences). Sifakis lives in France, whose citizenship he took in 1976 and works for the Centre national de la recherche

scientifique at the VERIMAG laboratory near Grenoble, of which he is a founder. He is also coordinator of Artist2, the European Network of Excellence for research on Embedded Systems. He is a grand officer of France's national order of merit and commander in France's Legion of Honour.

Nov. 05, 2014

Applying data science to firmographics

Data science is now fashionable and the search for data scientists is a new challenge for headhunters. Even though both terms are fuzzy and subject to hype and buzzword mania, data science includes data collection, data cleansing, data management, data analytics, and data vizualisation, and a data scientist is a person who can master some or all of these techniques (or sciences). At Data Publica, we are applying data science to firmographics (firmographics is to organizations what demographics is to people), and we are using firmographics to answer the needs of B2B sales and marketing departments. This talk will present the techniques we use and some of the amazing results they produce.

François Bancilhon is currently CEO of Data Publica, a key actor of the Open Data / Big Data space in France. He has co-founded and/or managed several software startups in France and in the US (Data Publica, Mandriva, Arioso, Xyleme, Ucopia, O2 Technology). Before becoming an entrepreneur, François was a researcher and a university professor, in France and the US, specializing in database technology. François holds an engineering degree from the École des Mines de Paris, a PhD from the University of Michigan and a Doctorate from the University of Paris XI.



CCSA Nov. 03, 2014

The 4th International Workshop on Cloud Computing and Scientific Applications (CCSA)

CCSA workshop has been formed to promote research and development activities focused on enabling and scaling scientific applications using distributed computing paradigms, such as cluster, Grid, and Cloud Computing. To address the growing needs of both applications and Cloud computing paradigm, CCSA brings together researchers and practitioners from around the world to share their experiences, to focus on modelling, executing, and monitoring scientific applications on Clouds.

In this workshop, we are interested in receiving innovative work on enabling and scaling computing systems to support the execution of scientific applications. The target audience include researchers and industry practitioners who are interested in distributed systems, particularly focusing on scaling of applications using Cloud computing.

Organisers

Dr. Surya Nepal CSIRO, Australia

Dr. Suraj Pandey IBM Research, Australia

Dr. Shiping Chen CSIRO, Australia

PC Members

Dr. Shiping Chen CSIRO, Australia Dr. Chi-Hung Chi CSIRO, Australia

Dr. Keman Huang Tianjing University, China

Dr. Julian Jang-Jaccard CSIRO, Australia Dr. Surva Nepal CSIRO, Australia

Dr. Jun Shen University of Wollongong, Australia

Dr. Zhongjie Wang
Dr. Xuyun (Sean) Zhang
Harbin Institute of Technology (HIT), China
The University of Melbourne, Australia

Nov. 03, 2014

FOR-MOVES

FORmal MOdeling and VErification of Service-based systems

During the few last years the use of formal approaches for the modeling and the verification of service-based processes is increasingly widespread. On the one hand, formal modeling allows one to define unambiguous semantics for the languages and protocols used for the specification of service oriented systems. On the other hand, formal verification approaches are popular means of checking the correctness properties of these applications, such as safety, liveness, QoS requirements and security. Such properties can be considered as a behavioral criteria for compatibility between different local services/processes.

The aim of FOR-MOVES workshop is to provide a venue for the presentation and discussion of new ideas and work in progress in formal modeling and verification methods, in the field of Service Oriented Computing (SOC).

Organizers

Kais Klai (LIPN, University Paris 13, France) Amel Mammar (Samovar, TSP, France)

Program Committee

Etienne André (LIPN, University Paris 13, France)

Boualem Benatallah (University of New South Wales, Sydney)

Nejib Ben Hadj-Alouane (ENIT, Tunisia)

Jörg Desel (University of Hagen)

Michael Dierkes (Rockwell Collins)

Marc Frappier (University of Sherbrooke)

Mohamed Graiet (ISIM, Monastir, Tunisia)

Serge Haddad (ENS Cachan, France)

Sun Jun (Singapore University of Technology and Design)

Pierre Kelsen (University of Luxembourg)

Michael Leuschel (University of Düsseldorf)

Meriem Ouederni (ENSEEIHT, France)

Denis Poitrenaud (University Paris Descartes, France)

Mohammad Reza Mousavi (Halmstad University, Sweden)

Liu Yang (Nanyang Technological University, Singapore)

KASA Nov. 03, 2014

First International Workshop on Knowledge Aware Service Oriented Applications

Service oriented computing is widely accepted for building interoperable, dynamic and adaptive systems. However, in spite of the tremendous advances and adoption, a considerable manual work is still required to align the implementation of service-based systems with business and end-users requirements.

Several efforts have been interested in bridging the gap between business and end-users level on one hand and the implementation and technical layer on the other hand. Initially driven by semantic Web technologies, the proposed and emergent approaches adopt new techniques such as formal concept analysis, information retrieval, social based recommendation, natural language processing, and statistical analysis and mining. Typically, these approaches abstract from/complement technical details and focus on services and BP from a semantic and knowledge perspective. The ultimate goal is managing service-oriented applications from a business and semantic level.

The efforts made by both Semantic Web and SOA research communities have led to the present SOA standards where ontologies and other formal frameworks can be considered in several ways to improve SOA frameworks efficiency. However, reaching the level of natively and fully semantic aware SOA frameworks is still a challenging task. The workshop aims at bringing together researchers and practitioners working in semantically enabled and knowledge aware service oriented systems in order to present, discuss and share original research works and practical experience.

Workshop Chairs:

Sami Bhiri, Télécom SudParis, France Walid Gaaloul, Télécom SudParis, France Nizar Messai, University Francois Rabelais Tours, France

Program committee:

Nour Assy, Télécom SudParis, France
Jorge Cardoso, University of Coimbra, Portugal
Edward Curry, DERI, University of Ireland, Galway, Ireland
Wassim Derguech, DERI, University of Ireland, Galway, Ireland
Khaled Gaaloul, Public Research Centre Henri Tudor, Luxembourg
Feng Gao, DERI, University of Ireland, Galway, Ireland
Claude Godart, LORIA, Nancy, France
Mohamed Graiet, ISIMA, University of Monastir, Tunisia
Imen Grida Ben Yahia, Orange, France
Marianne Huchard, LIRMM, CNRS, University Montpellier 2, France
Kais Klai, University Paris 13, France

Mourad Kmimech, ISIMA, University of Monastir, Tunisia Massimo Mecella, SAPIENZA, University of Rome, Italy Amedeo Napoli, LORIA, Nancy, France Olivier Perrin, LORIA, Nancy, France Pierluigi Plebani, Politecnico di Milano, Italy Yacine Sam, LI, University François Rabelais Tours, France Brahmananda Sapkota, University of Twente, Netherlands Mohamed Sellami, RDI Group, LISITE LAB, ISEP Paris, France Samir Tata, Institut Mines-Telecom, Telecom SudParis, France Tomas Vitvar, Czech Technical University, Czech Republic Zhangbing Zhou, CUG Beijing, China

RMSOC Nov. 03, 2014

1st Workshop on Resource Management in Service-Oriented Computing

In business processes, the term resource jointly implies both human and non-human resources. The former are people that take part in the execution of process activities at different levels and are typically referred to as organizational perspective, e.g., performers, or people accountable for work. Non-human resources involve all other things that are necessary to complete process activities, such as software, or IT-devices. The business-process lifecycle comprises several phases that we summarize as design time, run-time and evaluation time, and resource management is involved in all of them.

Several communities conduct research in the area of resource management in business processes, e.g., in the agents-, or the BPM-research community. Thus, different approaches exist to model organizational structures and to handle the way in which resources are designed, used and analyzed. Until recently, the main research focus in the BPM community has been intra-organizational. However, the emergence of Business-Process-as-a-Service (BPaaS) in cloud computing environments requires managing resources both intra- and inter-organizationally by means of service-oriented computing. Furthermore, as a trend, organizations increasingly outsource (parts of) their business processes and/or crowdsource workforce for activity completion in a distributed way, e.g., by using Mechanical Turk, or Social Compute Units that incorporate humans and IT-services. Consequently, inter-organizational business processes are a trending research domain. The advent of social computing and crowdsourcing solutions can improve current approaches by providing new mechanisms to organize and coordinate collaborative, distributed work. Consequently, new research challenges emerge for resource management throughout all the phases of the business-process lifecycle.

The goal of this workshop is to explore resource management in service-oriented computing both in intra-organizational processes with intensive resource needs, and in inter-organizational collaborations where organizations outsource process activities that involve resource-related requirements for individual, or collaborative work execution. For example, conditions that human resources must meet in order to participate in activity execution, or specific software required for activity completion.

Organizers

- Dr. Cristina Cabanillas, Vienna University of Economics and Business, Austria
- Dr. Alex Norta, Tallinn University of Technology, Estonia
- Dr. Nanjangud C. Narendra, Cognizant Technology Solutions, Bangalore, India
- Dr. Manuel Resinas, University of Seville, Spain

Program Committee

Claudio Bartolini, HP Labs Palo Alto, USA Anne Baumgrass, Hasso Plattner Institute at the University of Potsdam, Germany Alessandro Bozzon, Delft University of Technology, The Netherlands Fabio Casati, University of Trento, Italy Florian Daniel, University of Trento, Italy Joseph Davis, University of Sydney, Australia Claudio Di Ciccio, Vienna University of Economics and Business, Austria Schahram Dustdar, Vienna University of Technology, Austria Félix García, University of Castilla-La Mancha, Spain Christian Huemer, Vienna University of Technology, Austria Jan Mendling, Vienna University of Economics and Business, Austria Manfred Reichert, University of Ulm, Germany Stefanie Rinderle-Ma, University of Vienna, Austria Antonio Ruiz-Cortés, University of Seville, Spain Anderson Santana de Oliveira, SAP Labs, France Sigrid Schefer-Wenzl, FH Campus Vienna, Austria Mark Strembeck, Vienna University of Economics and Business, Austria

SeMaPS Nov. 03, 2014

The Third International Workshop on Self-Managing Pervasive Service Systems

SeMaPS 2014 is soliciting papers on broad topics for autonomous pervasive service systems, especially big data processing topics for pervasive systems. This covers big data systems for IoT/IoP/IoS, software engineering research for achieving self-management capabilities, artificial intelligence research to be built into autonomous systems, context-awareness research to facilitate the implementation of self-managed systems, approaches and tools for building pervasive service systems which can span across small devices and powerful computing node including cloud nodes, social networking, pattern recognition and other related research for achieving context-awareness, new applications and demos for pervasive service systems and autonomous systems.

Workshop Organisers

Weishan Zhang, China University of Petroleum, China. Klaus Marius Hansen, University of Copenhagen, Denmark. Paolo Bellavista, DEIS, Università di Bologna, Italy. JieHan Zhou, Uniersity of Oulu, Finland

Technical program committee

Klaus Marius Hansen, University of Copenhagen, Denmark Paolo Bellavista, Università di Bologna, Italy Julian Schütte, Fraunhofer AISEC, Germany Su Yang, Fudan University, China Zhipeng Xie, Fudan University, China Weishan Zhang, China University of Petroleum, China Yan Liu, Tongji University, China Yue Lv, Eastern China Normal University, China Gang Pan, Zhejiang University, China Zhiwen Yu, Northwestern Polytechnical University, China Bin Guo, Northwestern Polytechnical University, China Hongyu Zhang, Tsinghua University, China Qinghua Lu, NICTA, Australia Yuan Rao, Xi'an Jiao Tong University, China JieHan Zhou, Uniersity of Oulu, Finland Yangfan Zhou, Chinese University of Hongkang, China

Nov. 03, 2014

ISC

ISC 2014 - INTELLIGENT SERVICE CLOUDS WORKSHOP

The workshop on "Intelligent Service Clouds" follows the increasing interest in big data, cloud, analytics services and rich combinations with human driven services. We use the term intelligent service clouds as a broad category of (1) cloud deployed, defined, operated or enabled services or ecosystems which may (2) leverage the power of automated and human-centric services, (3) in order to enable creation of insights or value, (4) potentially operating with big data. Here intelligent may refer to many possible capabilities - e.g., the ability to generate insights; or the ability to enable new types or styles of collaborations within or between enterprises; or the ability of services to adapt to changing environments, etc. The goal of the workshop is to provide a platform for exploring this exciting landscape and new challenges in the context of intelligent service clouds. It aims at bringing together researchers from various communities interested in the challenges.

Organizers

Roman Vaculin, IBM T.J. Watson Research, USA Alexander Norta, Tallinn University of Technology, Estonia Rik Eshuis, Eindhoven University of Technology, The Netherlands

Program Committee

Stefan Schulte, Vienna University of Technology
Alexander Wöhrer, Vienna Science and Technology Fund, Austria
George Feuerlicht, Prague University of Economics
Claus Pahl, Dublin City University
Smita Ghaisas, Tata Research Design and Development Center
Akhil Kumar, Penn State University
Yuqing Tang, Carnegie Mellon University
Antonio Brogi, University of Pisa
Shiping Chen, Networking Technologies Laboratory, CSIRO Australia
Adrian Mos, Xerox Research, France
Cesare Pautasso, University of Lugano, Switzerland

WESOA Nov. 03, 2014

The 10th International Workshop on Engineering Service-Oriented Applications

WESOA complements ICSOC by focusing on core software engineering issues in the context of service-oriented systems, keeping pace with emerging application areas of service computing that include mobile, social and cloud computing. The WESOA workshop encourages radically new approaches that address the challenges that arise from these characteristics of service-oriented applications, focusing on methodologies and tools that support service-oriented SLDC. Our aim is to facilitate exchange and evolution of ideas in service engineering research across multiple disciplines and to encourage participation of researchers from academia and industry. To promote collaboration the WESOA workshop has a highly interactive format with technical sessions complemented by extensive discussions. WESOA 2014 will continue a successful series of ICSOC workshops started in Amsterdam in 2005. Over the last nine years WESOA workshop has demonstrated its relevance by attracting a large number of participants, and producing high-quality papers that were published by Springer LNCS series and in a special issue of the IJCSSE journal.

Organisers

George Feuerlicht, HCTD, University of Technology, Sydney, AU Winfried Lamersdorf, University of Hamburg, DE Guadalupe Ortiz, University of Cádiz, ES Christian Zirpins, SEEBURGER AG, DE

Programme Committee

Marco Aiello, University of Groningen, Netherlands Vasilios Andrikopoulos, University of Stuttgart, Germany Muneera Bano, University of Technology, Sydney, Australia Alena Buchalcevova, Prague University of Economics, Czech Republic Anis Charfi, SAP Research CEC Darmstadt, Germany Javier Cubo, University of Malaga, Spain Andrea Delgado, Universidad de la República, Uruguay Schahram Dustdar, Technical University of Vienna, Austria Daniel Florian, University of Trento, Italy Valeria de Castro, Universidad Rey Juan Carlos, Spain Laura Gonzalez, Universidad de la República, Uruguay Paul Greenfield, CSIRO, Australia Agnes Koschmieder, Karlsruhe Institute of Technology, Germany Mark Little, Red Hat, United States Leszek Maciaszek, Wrocław University of Economics, Poland Michael Maximilien, IBM Almaden Research, United States Marcelo Medeiros, PUC-Rio, Brasil

Massimo Mecella, Univ. Roma LA SAPIENZA, Italy
Daniel Moldt, University of Hamburg, Germany
Rebecca Parsons, ThoughtWorks, United States
Andreas Petter, SEEBURGER AG, Germany
Pierluigi Plebani, Politecnico di Milano, Italy
Franco Raimondi, Middlesex University, United Kingdom
Wolfgang Reisig, Humboldt-University Berlin, Germany
Norbert Ritter, University of Hamburg, Germany
Nelly Schuster, FZI Forschungszentrum Informatik, Germany
Thai Tran, University of Technology, Sydney, Australia
Yi Wei, University of Notre Dame, United States of America
Eric Wilde, UC Berkeley School of Information, United States of America
Erik Wittern, FZI Research Center for Information Technology, Germany
Olaf Zimmermann, HSR FHO, Switzerland

CONFERENCE PROGRAM

Time	Monday 3, 2014	Tuesday 4, 2014		Wednesday 5, 2014		Thursday 6, 2014		
08:30 - 09:00	Registration							
09:00 - 09:15		Opening Room: R. Aron		Announcements Room: R. Aron				
09:15 - 10:30		Keynote I. Joseph Sifakis Rigorous System Design Room: R. Aron		Keynote II. François Bancilhon Applying data science to firmographics Room: R. Aron		Quality of Service Room: R. Aron	Trust_ Room: Amphi 5	
10:30 - 11:00		Coffee Break		Coffee Break		Coffee Break		
11:00 - 12:30		Business Process Management I Room: R. Aron	Service Composition and Discovery Room: Amphi 5	Service Design and Description I Room: R. Aron	Cloud Service Management I Room: Amphi 5	Business Service Management Room: R. Aron	Workshop Summaries Room: Amphi 5	
12:30 - 13:30	PhD Symposium /	Lunch		Lunch		Lunch		
13:30 - 15:00	Workshops Program	Business Process Management II Room: Amphi 5	Demos Room: R. Aron	Panel. Collec Syste Challenges and C Clo and Services Room: I	ems: Opportunities for oud S Computing	Industry Papers Room: Amphi 5	Semantic Web Services Room: R. Aron	
15:00 - 15:30		Coffee Break		Coffee Break		Farewell and Presentation of ICSOC 2015		
15:30 - 16:30 16:30 - 17:00		Service Management and Evolution Room: R. Aron	Service Composition and Ensuring Composition Properties Room: Amphi	Service Design and Description II Room: R. Aron	Cloud Service Management II Room: Amphi			
17:00 - 17:30			5					
18:00 - 19:30 19:30				Visit of Eif	fel Tower			
20:30 20:30 - 23:00	Workshops Reception			Conference (Diner and	Social Event			

TUESDAY, 04

Opening, welcome greeting

R. Aron



Keynote I

Rigorous System Design **Sifakis, Joseph**

09:15 ↓ 10:30

Session Chair: Prof. Mike Papazoglou

Business Process Management I

Session Chair: Prof. Stefanie Rinderle-Ma

Configuration Rule Mining for Variability Analysis in Configurable Process Models

Assy, Nour; Gaaloul, Walid

ProcessBase: A Hybrid Process Management Platform

Barukh, Moshe Chai; Benatallah, Boualem

A Multi-Objective Approach to Business Process Repair

Di Francescomarino, Chiara; Tiella, Roberto; Ghidini, Chiara; Tonella, Paolo

R 11:00 → 12:30

Service Composition and Discovery

Session Chair: Prof. Schahram Dustdar

A Dynamic Service Composition Model for Adaptive Systems in Mobile Computing Environments
Chen, Nanxi; Clarke, Siobhán

Optimal and automatic transactional web service composition with dependency graph and 0-1 linear programming Gabrel, Virginie; Manouvrier, Maude; Murat, Cécile Amphi 5

11:00 ↓ 12:30 A Framework for Searching Data and Services with SPARQL Mouhoub, Mohamed Lamine; Grigori, Daniela; Manouvrier, Maude

13:30 ↓ 15:00

Amphi 5

Business Process Management II

Session Chair: Prof. Jan Mendling

Memetic Algorithms for Mining Change Logs in Process Choreographies Fdhila, Walid; Rinderle-Ma, Stefanie; Indiono, Conrad

Flexible Batch Configuration in Business Processes based on Events Pufahl, Luise; Herzberg, Nico; Meyer, Andreas; Weske, Mathias

Automatic Generation of Optimized Workflow for Distributed Computations on Large-Scale Matrices

Sabry, Farida; Nassar, Mohamed; Erradi, Abdelkarim; Malluhi, Qutaibah

DEMOS

13:30 ↓ 15:00

R. Aron

Session Chair: Prof. Olivier Perrin

WS-Portal: An Enriched Web Services Search Engine.

Bourne, Scott; Szabo, Claudia; Sheng, Quan

SmartPM: Automated Adaptation of Dynamic Processes.

Marrella, Andrea; Mecella, Massimo; Sardina, Sebastian; Tucceri, Paola

WS-Portal: An Enriched Web Services Search Engine. Aznag, Mustapha; Quafafou, Mohamed; Jarir, Zahi

SUPER: Social-based Business Process Management Framework. Maamar, Zakaria; Sakr, Sherif

Service Management and Evolution

15:30 ↓ 17:30

. Aron

Session Chair: Prof. Flavio De Paoli

Detection of REST Patterns and Antipatterns: A Heuristics-based Approach Palma, Francis; Dubois, Johann; Moha, Naouel; Guéhéneuc, Yann-Gaël

How Do Developers React to Web API Evolution? Wang, Shaohua; Keivanloo, Iman; Zou, Ying

(SHORT) Choreographing Services Over Mobile Devices Ahmed, Tanveer; Srivastava, Abhishek

Amphi 5

(SHORT) Adaptation of Asynchronously Communicating Software Canal, Carlos; Salaün, Gwen

(SHORT) Handling Irreconcilable Mismatches in Web Services Mediation Qiao, Xiaoqiang; Sheng, Quan. Z.; Chen, Wei

Service Composition and Ensuring Composition Properties

Session Chair: Prof. Liang Zhang

Conformance for DecSerFlow Constraints Sun, Yutian; Su, Jianwen

Integrating on-policy reinforcement learning with multi-agent techniques for adaptive service composition

Wang, Hongbing; Chen, Xin; Wu, Qin; Yu, Qi; Zheng, Zibin; Bouguettaya, Athman

(SHORT) On Enabling Time-aware Consistency of Collaborative Cross-Organisational Business Processes Cheikhrouhou, Saoussen; Kallel, Slim; Guermouche, Nawal; Jmaiel, Mohamed

(SHORT) Designing Secure Service Workflows in BPEL Pino, Luca; Mahbub, Khaled; Spanoudakis, George

(SHORT) Failure-Proof Spatio-Temporal Composition of Sensor-Cloud Services

Ghari Neiat, Azadeh; Bouguettaya, Athman; Sellis, Timos; Dong, Hai

WEDNESDAY, 05

09:00 ↓ 09:15

R. Aron

Announcements

09:15 ↓ 10:30 R. Aron

Keynote II

Applying data science to **Bancilhon, François**

Session Chair: Prof. Bruno Defude

11:00 ↓ 12:30

Aron

Service Design and Description I

Session Chair: Prof. Cesare Pautasso

An agent-based service marketplace for dynamic and unreliable settings Barakat, Lina; Mahmoud, Samhar; Miles, Simon; Taweel, Adel; Luck, Michael

Architecture-centric Design and Configuration of Complex Service Systems Dorn, Christoph; Waibel, Philipp; Dustdar, Schahram

(SHORT) Decidability and Complexity of Simulation Preorder for Data-Centric Web Services

Akroun, Lakhdar; Benatallah, Boualem; Nourine, Lhouari; Toumani, Farouk

(SHORT) *Market-optimized Service Specification and Matching*Arifulina, Svetlana; Platenius, Marie Christin; Gerth, Christian; Becker, Steffen; Engels, Gregor; Schaefer, Wilhelm

Cloud Service Management I

Session Chair: Prof. Alistair Barros

ADVISE -- a Framework for Evaluating Cloud Service Elasticity Behavior Copil, Georgiana; Trihinas, Demetris; Truong, Hong-Linh; Moldovan, Daniel; Pallis, George; Dustdar, Schahram; Dikaiakos, Marios

Transforming Service Compositions Into Cloud-Friendly Actor Networks Ivanovic, Dragan; Carro, Manuel

(SHORT) Evaluating Cloud Users' Credibility of Providing Subjective Assessment or Objective Assessment for Cloud Services Qu, Lie; Wang, Yan; Orgun, Mehmet; Wong, Duncan; Bouguettaya, Athman

(SHORT) Composition of Cloud Collaborations under Consideration of Non-Functional Attributes Wenge, Olga

Panel

Collective Adaptive Systems: Challenges and Opportunities for Cloud and Services Computing

Moderator: Hong-Linh Truong, Vienna University of Technology

Panelists:

- Antonio Brogi, University of Pisa, Italy
- Florian Daniel, University of Trento, Italy
- Schahram Dustdar, Vienna University of Technology, Austria
- Aditya Ghose, University of Wollongong, Australia
- Andreas Metzger, University of Duisburg-Essen, Germany

13:30

15:00

Service Design and Description II

Session Chair: Prof. Boualem Benatallah

Managing Expectations: Runtime Negotiation of Information Quality Requirements in Event-based Systems
Frischbier, Sebastian; Pietzuch, Peter; Buchmann, Alejandro

C2P:Co-operative Caching Policy for distributed storage systems
Nadgowda, Shripad; Gupta, Sanchit; Sreenivas, Chaitanya R; Gupta, Neha;
Verma, Akshat

(SHORT) Weak Conformance of Control Flow and Data Object Behavior in Business Process Models
Meyer, Andreas; Weske, Mathias

Cloud Service Management II

Session Chair: Prof. Farouk Toumani

A Runtime Model Approach for Data Geo-Location Verification of Cloud Services

Schmieders, Eric; Metzger, Andreas; Pohl, Klaus

Heuristic Approaches for Robust Cloud Monitor Placement Siebenhaar, Melanie; Schuller, Dieter; Wenge, Olga; Steinmetz, Ralf

Compensation-based vs. Convergent Deployment Automation for Services Operated in the Cloud

Wettinger, Johannes; Breitenbücher, Uwe; Leymann, Frank

(SHORT) Bottleneck Detection and Solution Recommendation for Cloudbased Multi-Tier Application Yao, Jinhui; Jung, Gueyoung

13:30 ↓ 15:00

THURSDAY, 06

Quality of Service

Session Chair: Prof. Athman Bouguettaya

(SHORT) Probabilistic prediction of the QoS of service orchestrations: A truly compositional approach

Bartoloni, Leonardo; Brogi, Antonio; Ibrahim, Ahmad

(SHORT) QoS-aware Complex Event Service Composition and Optimization using Genetic Algorithms

Gao, Feng; Curry, Edward; Intizar, Ali; Bhiri, Sami; Mileo, Alessandra

(SHORT) Towards QoS Prediction Based on Composition Structure Analysis and Probabilistic Environment Models Ivanovic, Dragan; Carro, Manuel; Kaowichakorn, Peerachai

Trust

Session Chair: Dr. Gargi Dasgupta

(SHORT) A Novel Equitable Trustworthy Mechanism for Service Recommendation in the Evolving Service Ecosystem Huang, Keman; Liu, Yi; Nepal, Surva; Fan, Yushun; Chen, Shiping; Tan, Wei

(SHORT) Message Content-Aware Evolution of Trust Negotiation Protocols in Cloud Collaboration

Ryu, Seung Hwan; Erradi, Abdelkarim; Khan, Khaled M.; Alhazbi, Saleh; Benatallah, Boualem

(SHORT) Social Context-aware Trust Prediction in Social Networks Zheng, Xiaoming; Wang, Yan; Orgun, Mehmet A.; Liu, Guanfeng; Zhang, Haibin

09:15

10:30

Business Service Management

Session Chair: Prof. Hong-Linh Truong

How to Enable Multiple Skill Learning in a Service System Agarwal, Shivali; Kalra, Sumit; Dasgupta, Gaargi

(SHORT) Towards Auto-Remediation in Service Delivery: Context-based Classification of Noisy and Unstructured Tickets Dasgupta, Gargi B; Nayak, Tapan K; Akula, Arjun R; Agarwal, Shivali; Nadgowda, Shripad J

(SHORT) ITIL Metamodel Gama, Nelson; Vicente, Marco; Mira da Silva, Miguel

(SHORT) Formal Modeling and Analysis of Home Care Plans Gani, Kahina; Bouet, Marinette; Schneider, Michel; Toumani, Farouk

(SHORT) Effort Analysis Using Collective Stochastic Model Sreedhar, Vugranam

Workshop Summaries

Industry Papers

Session Chair: Dr. Joyce El Haddad

Runtime Management of Multi-level SLAs for Transport and Logistics Services

Marquezan, Clarissa Cassales; Metzger, Andreas; Franklin, Rod; Pohl, Klaus

Single Source of Truth (SSOT) for Service Oriented Architecture (SOA) Pang, Candy; Szafron, Duane

(SHORT) Model for Service Licensing in API Economy Vukovic, Maja; Zeng, Liangzhao; Rajagopal, Sriram

Semantic Web Services

Session Chair: Dr. Sami Bhiri

(SHORT) Orchestracting SOA using Requirement Specifications and Domain Ontologies

Phot Manai: Yo. Chunyang: Hans Arna, Jacobson

Bhat, Manoj; Ye, Chunyang; Hans-Arno, Jacobsen

(SHORT) Estimating Functional Reusability of Services Mohr, Felix

(SHORT) Negative-connection-aware Tag-based Association Model for Service Recommendation in Mashup Ecosystem Ni, Yayu; Fan, Yushun; Huang, Keman; Bi, Jing; Tan, Wei

Farewell and Presentation of ICSOC 2015

15:00 ↓ 15:30

R. Aror

WORKSHOPS/PHD SYMPOSIUM PROGRAM

MONDAY, 03

Time	PhD Symposium	CCSA- Cloud Computing and Scientific Applications	KASA - Knowledge Aware Service Oriented Applications	RMSOC - Resource Management in Service- Oriented Computing	FOR-MOVES - FORmal MOdeling and VerificAtion of Service-based systems SeMaPS - Self- Managing Pervasive Service Systems	ISC - Intelligent Service Clouds	WESOA - Engineering Service- Oriented Applications
Room	707	707	709	711	709	401	403
09:00 - 10:30		Keynote and Web Service QoS	Knowledge-aware Business Process Management	Opening and Keynote 1			Opening and Keynote
10:30 - 11:00		Coffee Break	Coffee Break	Coffee Break			Coffee Break
11:00 - 12:30		Cloud and Workflow/Bu siness Process	Knowledge-aware Service Management	Resource Modeling and Discovery in Business Processes			Research Papers
12:30 - 13:30	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
13:30 - 15:00	Session I			Keynote 2	Services and Cloud	Session I	Research Papers & Discussion
15:00 - 15:30	Coffee Break			Coffee Break	Coffee Break	Coffee Break	Coffee Break
15:30 - 17:00	Session II			Resource Optimization in Business Processes	Self-Managing Pervasive Service Systems	Session II	
17:00 - 17:30	Break						
17:30 - 18:30	Session III						

Keynote

707

09:00 ↓ 10:30

Web Service QoS

An Incremental Tensor Factorization Approach for Web Service QoS Prediction
Zhang, Wancai

707

09:00 ↓ 10:30

Cloud and Workflow/Business Process

Vertical Scaling with OpenStack - Capabilites of Gust Operation Systems, Hypervisors, and the Cloud Management Platform Turowski, Marian; Lenk, Alexander

Exploiting the Parallel Execution of Homology Workflow Variants in HPC Compute Clouds

Ocana, Kary; de Oliveira, Daniel; Silva, Vitor; Benza, Silvia; Mattoso, Marta

A Validation Method of Configurable Business Processes Based on Dataflow

Yiwang, Huang

KASA: Knowledge Aware Service Oriented Applications

09:00 ↓ 10:30

602

Knowledge-aware Business Process

Discovering and Categorizing Goal Alignments from Mined Process Variants Ponnalagu, Karthikeyan; Ghose, Aditya; Narendra, Nanjangud C.; Dam, Hoa Khanh

Supporting Enterprise Changes Using Actor Performance Assessment Jabloun, Marwen; Sayeb, Yemna; Ben Ghezala, Henda; Gaaloul, Khaled

Reasoning on Incomplete Execution Traces using Action Languages - A first report (SHORT)

Di Francescomarino, Chiara; Ghidini, Chiara; Tessaris, Sergio; Vazquez Sandoval Itzel

11:00 ↓ 12:30

Knowledge-aware Service Management

Towards a Framework for Semantically-enabled Compliance Management in Financial Services

Elgammal, Amal; Butler, Tom

A Planning-Based Service Composition Approach for Data-Centric Workflows

Lopez-Enriquez, Carlos-Manuel; Cuevas-Vicenttin, Victor; Vargas-Solar, Genoveva; Collet, Christine; Zechinelli-Martini, Jose-Luis

Semantic Web Services Approach For Collaboration In E-Gov Context (SHORT)

Latrache, Amal; Nfaoui, El habib; Boumhidi, Jaouad

RMSOC: Resource Management in Service-Oriented Computing

Opening and Keynote I

The Role of Resources in Service-Dominant Business Design Grefen, Paul

09:00

10:30

Resource Modeling and Discovery in **Business Processes**

11:00 12:30

BPM supported Privacy by Design for Cross Organization Business **Processes**

Stevovic, Jovan; Sottovia, Paolo; Marchese, Maurizio; Armellin, Giampaolo

Resource-Aware Process Model Similarity Matching Baumann, Michaela; Baumann, Michael Heinrich; Schonig, Stefan; Jablonski, Stefan

Supporting Rule-based Process Mining by User-Guided Discovery of Resource-Aware Frequent Patterns Schonig, Stefan; Gillitzer, Florian; Zeising, Michael; Jablonski, Stefan

13:30 15:00

711

Keynote II

Internet of Things, People, and Processes **Dustdar, Schahram**

17:00

711

Resource Modeling and Discovery in **Business Processes**

Learning "Good Quality" Resource Allocations from Historical Data Sindhgatta, Renuka; Ghose, Aditya; Dasgupta, Gaargi Banerjee

Optimizing Resource Utilization by Combining Running Business Process Instances

Natschlager, Christine; Bogl, Andreas; Geist, Verena

Discussion and Closure

FOR-MOVES: FORmal MOdeling and VerificAtion of Service-based systems

Services and Cloud

Parameterized Automata Simulation and Application to Service Composition Belkhir, Walid; Chevalier, Yannick; Rusinowitch, Michael

Optimal Virtual Machine Placement in Multi-Tenant Cloud Teyeb, Hana; Balma, Ali; Ben Hadj-Alouane; Nejib Tata; Samir 709 13:30 ↓ 15:00

SeMaPS: Self-Managing Pervasive Service Systems

Self-Managing Pervasive Service Systems

602

Developing Service Platform for Web Context-Aware Services Towards Self-Managing Ecosystem

Takatsuka, Hiroki; Saiki, Sachio; Matsumoto, Shinsuke; Nakamura, Masahide

Retrieving Sensors data in Smart Buildings through Services: a similarity algorithm

Foglieni, Claudia; Mazuran, Mirjana; Meroni, Giovanni Plebani, Pierluigi

User State Monitoring System on Android Smart Phones Wang, Xun; Zhang, Weishan

ISC: Intelligent Service Clouds

Keynote

Smart Manufacturing Clouds Mike P. Papazoglou

6

13:30 ↓ 15:00

13:30

15:00

Session I

401

Domain Specific Monitoring of Business Processes Using Concept Probes Mos. Adrian

Session II

Contextualised security operation deployment through MDS@run.time architecture

Ouedraogo, Wendpanga Francis; Biennier, Frederique; Merle, Philippe

A Non-Parametric Data Envelopment Analysis Approach for Cloud Services Evaluation

Xu, Chunxiang; Ma, Yupeng; Wang, Xiaobo

Towards a Model for Resource Allocation in API Value Networks Houghton, James; Siegel, Michael; Vukovic, Maja

Using COBIT 5 for Risk to Develop Cloud Computing SLA Evaluation Templates

Illoh, Onyeka; Aghili, Shaun; Butakov, Sergey

15:30 ↓ 17:30

WESOA: Engineering Service-Oriented Applications

09:00 ↓ 10:30

403

Opening and Keynote

Building custom applications using Unicorn Universe services Kokorceny, Michal

Chairs of WESOA

11:00 ↓ 12:30

Research Papers

Virtualizing Communication for Hybrid and Diversity-Aware Collective Adaptive Systems

Zeppezauer, Philipp; Scekic, Ognjen; Truong, Hong-Linh; Dustdar, Schahram

MoDAS: Methodology and Tool for Model-Driven Adaptable Services Ortiz, Guadalupe; Peinado, Sonia; Garcia de Prado, Alfonso

Service Interface Synthesis in Business Networks Wei, Fuguo; Barros, Alistair; Ouyang, Chun

3:30

15:00

400

Research Papers & Discussion

GovOps: The Missing Link for Governance in Software-defined IoT Cloud Systems

Nastic, Stefan; Inzinger, Christian; Truong, Hong-Linh; Dustdar, Schahram

Cloud Migration Patterns: A Multi-Cloud Service Architecture Perspective Jamshidi, Pooyan; Pahl, Claus; Chinenyeze, Samuel; Liu, Xiaodong

Wrap Up and Discussion

PhD Symposium

Session I

MobiDisc: Semantic Web Service Discovery Approach in Mobile

Environments

Ben Njima, Cheyma

Making Web Services Selection more Customized A Fuzzy-Logic-Theory-Based Approach Chouiref. Zahira

A Description-based Service Search System Caicedo-Castro, Isaac Bernardo

Keynote + Session II

Three research perspectives on service-oriented computing Mendling, Jan

Monitoring and Checking Privacy Policies of Cloud Services based on Models
Schmieders, Eric

Dynamic QoS Requirement Aware Service Composition and Adaptation Tripathy Ajaya, Kumar

Session III

Dynamic Composite Web Service Execution by Providing Fault-tolerance and QoS monitoring
Angarita, Rafael

Service Map: A Service Hierarchy for Satisfying User's Requirement of Multiple Granularities

Du, Chu

707

13:30 ↓ 15:00

15:30 ↓ 17:00

707

Workshops Reception (On-board Dinner)

MONDAY, **03** 20:30 – 23:00

Escale du Pont St Michel, Quai des Orfèvres, 75001 Paris



Embarquement Boarding



Conference Social Event

WEDNESDAY, 05

• Eiffel Tower visit

19:30 - 20:30

Dinner and Award

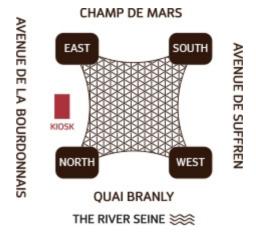
20:30 - 23:00

58 Tour Eiffel restaurant (1st floor of the Eiffel Tower)

Meeting point at the Kiosk from 18:30 to 19:30

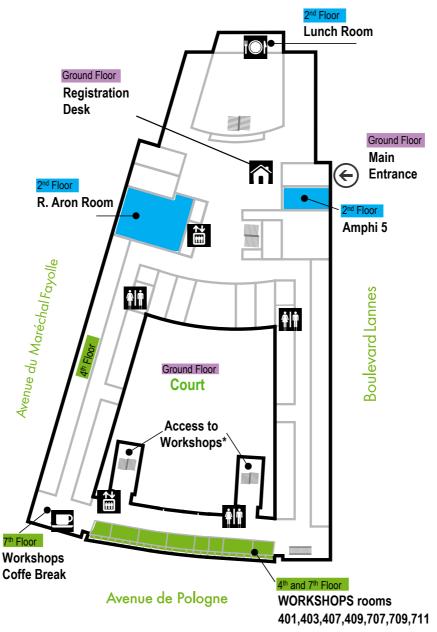
Public transport

- 1. Métro Ligne 6 Bir-Hakeim Grenelle
- 2. RER C Champ de Mars Tour Eiffel
- 3. Bus 42, 69, 82, 87 Champ de Mars









*The 7th floor is accesible only by the lift or by the indicated stairs







WiFi Access (https://eduspot.dauphine.fr)

- Select EDUSPOT
- SelectVisiteur ParisDauphine
- 3 User Name icsoc14
- Password ic;soc_14