# CAISE'15

27th International Conference on Advanced Information Systems Engineering



**Conference Program** 

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#### Welcome!

Welcome to the 27th International Conference on Advanced Information Systems Engineering (CAiSE'15), held in Stockholm, Sweden, June 8 - 12, 2015!

The themes of CAiSE'15 are Creativity, Ability and Integrity in information Systems Engineering, which are key components for enabling information systems to move beyond traditional information management and to organically blend into the environment, appealing to large and diverse user bases. These themes are reflected in the scientific program, including keynotes on systems thinking, big data in cognitive systems, and innovation experiment systems as well as paper sessions on social and collaborative computing, applications in industry and smart cities, and inter-organizational process engineering.

CAiSE'15 received 236 full-paper submissions from all over the world: Europe (25 countries), Algeria, Brazil, Australia, Canada, China, Columbia, Egypt, India, Iran, Israel, Japan, New Zealand, Pakistan, Saudi Arabia, Singapore, Tunisia, United Arab Emirates, USA, and Vietnam. The papers addressed different topics – models, methods, techniques, architectures, platforms, as well as domain-specific, multi aspect, and new generation solutions in the information systems engineering discipline. With the 31 accepted papers, the proceedings of CAiSE'15 reflect the high quality of the included contributions.

The conference also includes tutorials, panels, a PhD consortium, and working conferences and workshops. We are very grateful to the authors for submitting their work, and the program committee and board members for participating in the review and selection process.

Stockholm is the capital of Sweden. The city is not only an economic and political centre, but also rich in cultural heritage and media settings. The CAiSE'15 conference reception will be given in the City Hall, the annual venue of the Nobel prize banquet, and the conference dinner will be held at the open-air museum Skansen.

Welcome to CAiSE'15!

Paul Johannesson, general chair Marite Kirikova, program chair Jelena Zdravkovic, program chair

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## Keynotes

JUNE 10 09:30-10:45

Aula



Harold W. "Bud' Lawson

Keynote 1 - Attaining a Systems Perspective Obtaining and utilizing a systems perspective that enables the capability to "think" and

"act" in terms of sys-

tems is vital for Infor-

mation Systems Engineers that develop and deploy products and services that are integrated into wider systems in various environments. To be able to use concepts, principles and paradigms as common mental models as well as to share a vocabulary of terminology all are essential for achieving understanding and communication. This applies to individuals as well as for all forms of organized group activities in treating the life cycle aspects of an information system. In this keynote address, a proven approach to attaining a broad common systems perspective is presented and related to information systems. Harold W. "Bud" Lawson

Harold W. "Bud" Lawson has been active in the computing and systems arena since 1958 and has broad international experience in private and public organizations as well as academic environments. Experienced in many facets of computing and computer-based systems, including sys-

JUNE 11 09:00– 10:15

Aula



Alexandra "Saška" Mojsilović

Keynote 2 - The Age of Data & The New Era of Computing

The emergence of social networking, sensors, mobile devices, business data warehouses, scientific and govern-

ment records creates an abundance of information. We like to call it "Big Data." Big Data comes in all forms: sound, video, images, symbols, measurements and natural

tems and software engineering, computer architecture, real-time, programming languages and compilers, operating systems, life-cycle process standards, various application domains as well as computer and systems related education and training. He contributed to several pioneering efforts in hardware and software technologies at Univac, IBM, Standard Computer Corporation, and Datasaab. In 2000, he received the prestigious IEEE Computer Pioneer Charles Babbage medal award for his 1964 invention of the pointer variable concept for programming lan-

Harold Lawson has held permanent and visiting professorial appointments at several universities including Polytechnic Institute of Brooklyn, University of California, Irvine, Universidad Politecnica de Barcelona, Linköpings University, Royal Technical University, University of Malaya and Keio University. He is a Fellow of the Association for Computing Machinery, Fellow and Life Member of the IEEE and Fellow of the International Council on Systems Engineering.

Harold Lawson is retired but is still an active consultant and is the Coordinating Editor of the College Publications Systems Series.

language. It is changing the way we live and work, the way businesses operate and the way govern-ments are run. And it is fundamentally changing the Information Technology landscape, giving rise to a new generation of cognitive systems that sense, predict, infer, recommend, hypothesize, and in some ways, reason. The combination of people and computers will be able to think in a way that neither people nor computers have ever done before; it will amplify human abilities and lead to new

### **Keynotes**

breakthroughs, assist us in making better choices, look out for us, and help us navigate our world in powerful new ways.

Aleksandra Mojsilović

Aleksandra "Saška" Mojsilović manages Data Science Group at the IBM T. J. Watson Research Center in Yorktown Heights, New York. Aleksandra is one of the pioneers of business analytics at IBM; throughout her career she championed innovative uses of analytics for business decision support: from the early identification of client risk via predictive modeling, to the estimation of outsourcing benefits via signal analysis in support of IBM marketing campaigns. Over the last decade, as a lead scientist, Aleksandra drove the development of a portfolio of Smarter Workforce solutions and led their deployment within IBM for the enterprise-wide transformation. Working with key IBM clients in healthcare she led the development of differentiating analytics capabilities for healthcare payers. For her technical contributions and the business impact of her work, Aleksandra was appointed an IBM Fellow, the company's highest technical honor.

Saška received her PhD in Electrical Engineering in 1997 from the University of Belgrade, Belgrade, Serbia. She has worked at Bell Laboratories (1998-2000) and IBM Research (2000-present). Her research interests include multidimensional signal processing, pattern recognition, machine learning and predictive modeling, with applications to business analytics, healthcare, finance, multimedia, social and biomedical systems. She is the author of over 100 publications and holds 14 patents. Saška received a number of awards for her work, including the IEEE Young Author Best Paper Award, IN-FORMS Wagner Prize, IEEE International Conference on Service Operations and Logistics and Informatics Best Paper Award, European Conference on Computer Vision Best Paper Award, IBM Gerstner Award, IBM Market Intelligence Award and several IBM Outstanding Technical Achievement Awards.



Nicholas Millman

Industrial Keynote -Big Success with Big Data

In organizations that are using big data today, users report overwhelming satisfaction with their results, according to a new Ac-

centure Analytics survey, and see big data as a catalyst for their transformation as digital enterprises.

Nicholas Millman

Nicholas Millman leads Big Data & Analytics Delivery for Accenture across Europe, Africa & Latin America. During the course of twenty years with Accenture,

Nick has accumulated extensive experience of helping clients across a broad set of industries to drive value from their data. Nick holds a Masters degree in Chemical Engineering from Imperial College, London.

JUNE 11 11:00-12:30

Aula

### Keynotes

JUNE 12 09:30-10:45

Aula



Ian Bosch

Keynote 3 - From Opinions to Facts: Building Products Customers Actually Use

Research shows that for a typical system, more than half of all the fea-

tures are never used. This is a colossal waste of R&D effort and is caused by companies asking customers and users what they want. Users don't know what they want and it's the engineer's job to find this out. Answering this question requires a systematic approach to exploring a broad set of hypotheses about functionality that might add value for users at different stages of development. The talk introduces the notion of Innovation Experiment Systems as a systematic method for optimising the user experience of existing features, developing new features as well as developing new products. The method uses different techniques dependent on the stage of development, including pre-development, development and commercial deployment. In each stage, frequent customer involvement, both active and passive, is used to constantly establish and improve the user experience. The method is based on data from eight industrial cases and stresses the importance of speed and rapid iterations in development. The talk uses numerous examples from industry are used to illustrate the concepts.

Ian Bosch

Jan Bosch is professor of software engineering and director of the Software Center at Chalmers University Technology in Gothenburg, Sweden. Earlier, he worked as Vice President Engineering Process at Intuit Inc where he also lead Intuit's Open Innovation efforts and headed the central

mobile technologies team. Before Intuit, he was head of the Software and Application Technologies Laboratory at Nokia Research Center, Finland. Prior to joining Nokia, he headed the software engineering research group at the University of Groningen, The Netherlands, where he holds a professorship in software engineering. He received a MSc degree from the University of Twente, The Netherlands, and a PhD degree from Lund University, Sweden. His research activities include open innovation, innovation experiment systems, compositional software engineering, software ecosystems, software architecture, software product families and software variability management. He is the author of a book "Design and Use of Software Architectures: Adopting and Evolving a Product Line Approach" published by Pearson Education (Addison-Wesley & ACM Press), editor of several books and volumes and author of a significant number of research articles. He is editor for Journal of Systems and Software as well as Science of Computer Programming, chaired several conferences as general and program chair, served on many program committees and organized numerous workshops.

In the startup space, Jan is chairman of the board of Fidesmo in Stockholm, and Remente, in Gothenburg, Sweden. He serves on the advisory board of Assia Inc. in Redwood City, CA. Jan also runs a consulting firm, Boschonian AB, that offers its clients support around R&D and innovation management. More information about his background can be found at his website: www.janbosch.com.

#### Invited talk





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Roel Wieringa

Invited Talk: Design Science Methodology for Information Systems and Software Systems Engineering

The last ten years has seen a surge of interest in design science re-

search in information systems, and of empirical research in software engineering. In this talk I present a framework for design science in information and software systems engineering that shows how in design science research, we iterate over designing new artifacts, and empirically investigating these artifacts. The logic of both of these activities, design and empirical research, is that of rational decision making. I show how this logic can be used to structure our research questions as well as how to structure reports about our research. This gives us a checklist for designing empirical research. Finally, I will discuss in more detail what the role of theories in design science research is, and how we use theory to state research questions and to interpret the research results.

Roel Wieringa

Roel Wieringa occupies the chair of Information Systems at the Department of Computer Science at the University of Twente, The Netherlands. His research interests include requirements engineering, modelling, and conceptual methodology for software engineering and the design sciences. He has written three Requirements books, **Engineering:** Frameworks for Understanding (Wiley, 1996), Design Methods for Reactive Systems: Yourdon, Statemate and the UML (Morgan Kaufmann, 2003), and Design Science Methodology for Information Systems and Software Engineering (Springer, 2014).

JUNE 10 11:15– 12:45

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Steven Alter

Tutorial 1 - Work System Theory: A Bridge between Business and IT Views of Systems This tutorial addresses the lack of readily usable and easily teachable concepts, frame-

works, tools, and methods that bridge the gap between the people- and business-oriented sociotechnical world of business professionals and the abstract, technology-centric world of IT professionals and IS/IT researchers. That gap contributes to the widely recognized difficulty in communicating and collaborating around creating, implementing, and improving IT-reliant systems in organizations.

This tutorial explains the most updated version of work system theory and related ideas that were developed over several decades. Tutorial participants will receive a complete overview of the following: (a) main ideas of work system theory (WST), (b) application of WST in the work system method (WSM), and (c) extensions of WST that are useful to analyzing and designing systems and could motivate new thinking in subdisciplines such as sociotechnical systems, BPM, enterprise architecture, service-oriented thinking, agile development, and emergent change.

Intended Audience: (a) researchers who are looking for rigorous but understandable ways to explain IT-enabled systems and analyze cases involving IT-enabled systems, (b) business professionals who are looking for better ways to communicate and collaborate with business and IT professionals about systems in organizations, (c) IT professionals who are looking for a better ways to communicate and collaborate with business professionals, and (d) educators who want to help students un-

derstand and analyze IT-enabled systems as something more than software.

Steven Alter

Steven Alter is Professor of Information Systems at the University of San Francisco. He received his Ph.D. from MIT and converted his thesis into one of the first books on decision support systems. Eight years of experience as vice president of a successful software start-up led to a long term research stream concerning systems analysis concepts and methods that can be used by business professionals and can support communication with IT professionals. His 2006 book, The Work System Method: Connecting People, Processes, and IT for Business Results, is a distillation and extension of ideas in 1992, 1996, 1999, and 2002 editions of his information system textbook.

His subsequent research focuses on work system theory and many extensions related to work system principles and design spaces, work system metamodels, service systems, workarounds, and other topics. His articles have been published in Harvard Business Review, Sloan Management Review, MIS Quarterly, JAIS, CAIS, IBM Systems Journal, European Journal of Information Systems, Decision Support Systems, Interfaces, Communications of the ACM, CIO Insight, and many refereed conference proceedings.



John Venable

Tutorial 2 - FEDS2: A Pracstical Tutorial on the Framework for Evaluation in Design Science Research (version 2)

The Framework for Evaluation in Design

Science Research version 2 (FEDS2) supports researchers with a comprehensive approach to decision making, planning, and designing the evaluation strategies, approaches, and activities that are an essential component of high quality Design Science Research (DSR). FEDS2 has been co-developed by the presenter and is based on, combines, and extends two earlier approaches (Venable, Pries-Heje, Baskerville, 2012, 2014). FEDS2 includes several frameworks and a process for applying them to guide DSR researchers. The goals of this tutorial are to describe the newest version of the FEDS2 technique, provide a deeper understanding of the FEDS2 technique than that provided in available publications, to provide opportunities to practice applying the FEDS2 technique to the participants' own research, and to help the participants to progress and improve their DSR work.

The teaching method to be used will be a combination of (a) Introduction and presentation of FEDS2 by the presenter,(b) Discussion of FEDS2 and an example by the participants, (c) Application of FEDS2 by participants to their own research, and (d) Individualised feedback and group discussion on the participants' applications of FEDS2.

Intended Audience: this mini-tutorial is intended for practicing and student Design Science Researchers who wish to learn and apply a practical approach for determining how (at both the strategy and the detailed design levels) to effectively and efficiently

(within resource constraints) evaluate designed purposeful artefacts and design theories about them, as an essential part of conducting DSR. It should be highly relevant and suitable for those novice and experienced researchers who wish to learn more about DSR, develop and progress their own DSR work, and/or supervise DSR projects.

This tutorial is more relevant to researchers than to practitioners, although practitioners are often engaged de facto in DSR or collaborate with DSR researchers. The tutorial presumes a basic familiarity with the DSR research paradigm, its more common methods, and Design Theory, although questions and discussion about these and the DSR approach generally are welcome. *John Venable* 

John Venable is Associate Professor and Director of Research at the School of Information Systems and Co-Director of the Curtin Business School Not-for-Profit Research Initiative, both at Curtin University, Perth, Western Australia. He has held academic positions in Information Systems and Computer Science in the USA, Denmark, New Zealand, and Australia. He has published in journals including European Journal of Information Systems, Journal of Information Technology, The Information Systems Journal, Information & Management, Scandinavian Journal of Information Systems, Information Technology & People, Communications of the Association for Information Systems, Journal of Community Informatics, Wirtschaftsinformatik, and the Electronic Journal of Business Research Methods Dr Venable has published over 50 refereed papers about or using Design Science Research (DSR), is the incoming section editor for DSR of the Australasian Journal of Information Systems, co-organised the 2010 IFIP Working Groups 8.2 and 8.6 Joint InJUNE 10 14:15-15:45

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ternational Working Conference on "Human Benefit through the Diffusion of Information Systems Design Science Research", and co-edited a special issue of

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Arnon Sturm



Eric S. K. Yu

Tutorial 3 - Know-how Mapping with ME-map Know-how, which refers to the practical knowledge that connects desired objectives actions that can achieve those objectives, is a crucial foundation for today's advanced technological society. As more and more know-how is constantly being created, methods and niques are needed for

organizing, visualizing, understanding, and applying growing bodies of know-how. In this tutorial, we elaborate on the needs for mapping out such knowledge, provide an overview of approaches for addressing these needs, and elaborate on ME-map, a particular approach we developed for mapping know-how.

The ME-map approach centres around the means-ends relationship prominent in goal-oriented requirements engineering (hence the name ME-map), for depicting alternative solutions to problems and the trade-offs among them. By visualizing and analyzing the structure of the body of know-how in a domain, one can discover gaps in knowledge (open problems with missing or inadequate solutions), thereby guiding research directions and facilitating the evaluation of the impact of research results. Synergies across domains can potentially be discovered by making connections across know-how maps, creating new solutions. The progress of knowledge over time can be analyzed, as newly-invented Information Technology and People on "Design and Diffusion of Systems for Human Benefit".

methods and techniques are incrementally overlaid on top of the map of the existing body of know-how. We illustrate the approach and our experiences with examples from a number of areas, such as: variability in modeling business processes, customer retention, architecture documentation, and data mining. We conclude by outlining research challenges for know-how mapping.

Intended audience the tutorial should appeal to graduate students, researchers, and practitioners.

Arnon Sturm and Eric Yu

Arnon Sturm is a faculty member at Ben-Gurion University of the Negev, Israel. His research interests include software engineering, knowledge mapping, modeling, domain engineering, agent-oriented software engineering, and business process management. He had given multiple tutorials, on agent-oriented software engineering, and variability management, and has organized multiple events related to his research interests. Lately, he has co-edited two books: Domain Engineering, Product Lines, Languages, and Conceptual Models (Springer, 2013) and Agent-Oriented Software Engineering: Reflections on Architectures, Methodologies, Languages, and Frameworks (Springer, 2014).

Eric S. K. Yu is Professor at the University of Toronto, Canada. His research interests are in the areas of information systems modeling and design, requirements engineering, knowledge management, and software engineering. His contributions include the i\* modeling framework, which served as a foundation for GRL, part of the ITU-T Standard Z.151 User Requirements

Notation. His publications include: Social Modeling for Requirements Engineering (MIT Press, 2011); Conceptual Modeling: Foundations and Applications (Springer, 2009); Non-Functional Requirements in Software Engineering (Springer, 2000), and more than 200 articles. He is an associate editor for the Int. Journal of Information Systems Modeling and Design, and



Avigdor Gal



Matthias Weidlich

Tutorial 4 - Model Matching: Processes and Beyond

Conceptual models in general, and process models in particular, have been established as a means to design, analyse, and improve information systems. The creation, utilisation, and evolution of such models is supported by manifold concepts and techniques that offer, for instance, re-use

driven modelling support, harmonisation of model variants, model-based system validation, and effective management of model repositories. Many of these techniques share reliance on the identification of correspondences between the entities of different models, also termed model matching.

This tutorial takes up recent advances in matching process models in particular and provides information systems engineers (both practitioners and researchers) with a comprehensive overview of concepts and matching techniques in this domain. We review similarity measures for the textual, structural, and behavioural dimensions of process models, which form the basis of matching techniques, and also outline how they may be applied for other types of conceptual models. The tutorial also includes a

serves on the editorial boards of the Int. J. of Agent Oriented Software Engineering, IET Software, and the Journal of Data Semantics. He is series co-editor of the MIT Press book series on Information Systems. He was program co-chair for the Int. Conference on Conceptual Modeling (ER) in 2008 and 2014.

discussion of practical considerations for the application of process model matching and elaborates on open research challenges.

Intended audience: information systems engineers from both industry and academia.

Avigdor Gal and Matthias Weidlich

Avigdor Gal is an associate professor at Faculty of Industrial Engineering & Management, Technion. He is an expert on information systems. His research focuses on effective methods of integrating data from multiple and diverse sources, which affect the way businesses and consumers seek information over the Internet. His current work zeroes in on data integration — the task of providing communication between databases, and connecting such communication to real-world concepts. Another line of research involves the identification of complex events such as flu epidemics, biological attacks, and breaches in computer security, and its application to disaster and crisis management. He has applied his research to European and American projects in government, eHealth, and the integration of business documents. Prof. Gal has published more than 100 papers in leading professional journals (e.g. Journal of the ACM (JACM), ACM Transactions on Database Systems (TODS), IEEE Transactions on Knowledge and Data Engineering (TKDE), ACM Transactions on Internet Technology (TOIT), and the JUNE 11 11:00-12:30

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VLDB Journal) and conferences (ICDE, BPM, DEBS, ER, CoopIS) and books (Schema Matching and Mapping). He authored the book Uncertain schema Matching in 2011, serves in various editorial capacities for periodicals including the Journal on Data Semantics (JoDS), Encyclopedia of Database Systems and Computing, and has helped organize professional workshops and conferences nearly every year since 1998. He has won the IBM Faculty Award each year from 2002-2004, several Technion awards for teaching, the 2011-13 Technion-Microsoft Electronic Commerce Research Award, and the 2012 Yanai Award for Excellence in Academic Education, and others.

Matthias Weidlich is a post-doctoral re-

JUNE 12 11:15– 12:45 L50

Gil Regev

Tutorial 5 - Fundamental Systems Thinking Concepts for IS Engineering: Balancing between Change and Non-change

The introduction of a new IT system in an or-

ganization is always accompanied by changes to business processes, and sometimes to reporting structures and external relationships. Resistance to change is a well-known response to these initiatives. Understanding the necessity and inevitability of this resistance can help both researchers and practitioners. The take home message for researcher is to be more careful when they design their research and to appreciate that organizations will not necessarily implement methods immediately. For practitioners it is to appreciate people's resistance and build on it for the success of their project, as well as to take into account the time and effort it will take to get a new IT system accepted. Intended Audience:

search associate in the Department of Computing at Imperial College London, United Kingdom. Before joining Imperial, he was a research fellow and adjunct lecturer at the Technion - The Israel Institute of Technology, Israel. He received his PhD in Computer Science from the Hasso Plattner Institute (HPI), University of Potsdam, Germany. His research focuses on process modeling and analysis, eventbased systems, data interoperability, and uncertainty management. His results appeared in journals, such as IEEE TSE, IEEE TKDE, Information Systems, and The Computer Journal. Matthias has taught at the Technion and Imperial College in the area of process modeling and event-based systems.

(a) Practitioners engaged or to be engaged in the introduction of IT systems in real organizations,(b) System designers who aim have their systems accepted by users, even in the face of resistance, (c) Researchers engaged in research related to technology adoption, and (d) Researchers engaged in case studies, action research or Design Science research in IS

Gil Regev

Gil Regev is a Senior Researcher at the School of Computer and Communication Sciences of the Ecole Polytechnique Fédérale de Lausanne (EPFL) and Knowledge Manager at Itecor, an IT consultancy firm based in Switzerland. Gil's research interests are in General Systems Thinking, which he applies to Enterprise Architecture, Requirements Engineering and Knowledge Management. Gil has published his research in numerous scientific papers and is applying it to his daily work. Gil has a Ph.D. in Enterprise Information Systems from EPFL and over 25 years of experience in research and industry.

#### Panel 1 - Topics in Information Systems Engineering

What are the future research directions for information systems engineering (ISE)? What are the possible evolutions and revolutions for ISE theories, methods, techniques and tools? What is the relationship between ISE and MIS? How to use ISE to support emerging areas such as big data, business analytics, open data, cybersecurity, social and mobile computing, and health informatics?

The panelists will present their viewpoints

on some of the issues listed above and engage the audience in discussing and formulating directions for future research.

JUNE 10 16:15– 17:45 Lilla Hörsalen



Barbara Pernici, moderator



Pnina Soffer



Hajo Reijers



Arne Sølvberg



Roel Wieringa

#### Moderator and Panelists

Barbara Pernici is full professor of Computer Engineering at the Politecnico di Milano. She has a doctor in engineering degree (laurea) from the Politecnico di Milano and a MS in Computer Science from Stanford University. Previously she was full professor at the University of Udine (1990-1993) and associate professor at the Politecnico di Milano (1987-1990). Her research interests include workflow information systems design, cooperative information systems, adaptive information systems, service engineering and web services, data quality, and computer based design support tools, energy efficiency in information systems. She has published more than 50 papers in international journals, co-edited 26 books, and published about 350 papers at international level.

Hajo Reijers is a full professor in Business Informatics at VU University Amsterdam and a part-time, full professor in Information Systems at Eindhoven University of Technology. He wrote his Ph.D. thesis while he was a manager with Deloitte.

Previously, he also worked for Bakkenist Management Consultants and Accenture. As a consultant, he has been involved in various reengineering projects and workflow system implementations, particularly for governmental agencies and organizations offering financial services. Hajo has led the industrial BPM research group at Lexmark from 2012 to 2014. He is currently the managing director of the European BPM Round Table (http://www.bpmroundtable.eu/).

The focus of Hajo's academic research is on business process redesign, workflow management, conceptual modeling, process mining, and simulation. On these topics, he published over 150 scientific papers, chapters in edited books, and articles in professional journals.

Pnina Soffer's main research areas: business process modelling and management, requirements engineering, and conceptual modelling.

Specific topics addressed include goal orientation, flexibility, interoperability, context-aware adaptation, process mining, and data integrity. My research builds on theoretical foundations - philosophical (ontological basis for process modeling) and psychological (cognitive aspects of process modeling and requirements engineering). I also deal specifically with process management in the medical domain, see http://bmip.haifa.ac.il/

Arne Sølvberg was born in 1940 in southwestern Norway. He received a M.Sc. in applied physics in 1963 from the Norwegian Institute of Technology (NTH), now the Norwegian University of Science and Technology (NTNU). In 1971 at NTH he received a Ph.D. in information systems. Thesis advisor was Börje Langefors (born 1915), professor of Business Information Systems at Stockholm University.

Between 1963 and 1974 Sølvberg worked at the university's computer center, building up education and research in information systems. In 1974 he became the first professor in the newly formed computer science department. Since 2002 he was dean of NTNU's Faculty of Information Technology, Mathematics and Electrical Engineering. He retired in 2010. He has been a visiting scientist with IBM San Jose Research Center (now Almaden research center), The University of Florida, The Naval Postgraduate School in Monterey, The University of California Santa Barbara (UCSB), Los Angeles (UCLA) and Berkeley (UCB).

He has been active in international organizations working toward cooperation in research. He represented Norway in IFIP TC8 from when it started in 1976. From 1979 to 1982 Arne Sølvberg represented Norway at the IFIP General Assembly. From 1982 to 1988, he was chairman of IFIP WG8.1 for Information Systems Design. Until 1994 he served as a trustee in the VLDB Endowment. He cofounded the CAiSE conference series

Sølvberg's main research interests are in the fields of information systems design methodology, information modelling, information systems engineering and model driven design.

*Roel Wieringa*. Please find Roel's biography in the Invited talk section.

# Industrial Panel - Digital Transformation and its Impact on Industry, Research and Society

In the last few decades we have seen tremendous change in business, research and society, enabled by the advancements in ICT. Business intelligence and analytics together with Internet of Things have emerged as an important area of innovation and industrial application. In the future, we expect to see more changes in society, governments and enterprises introducing new business models and organizational and technical innovations.

We have invited prominent practitioners from different industries to participate in a panel discussion that will focus on the evolution of digital transformation. The Internet itself is only a couple of decades old. But during that time, we have seen impressive changes in technology that have touched each one of us. With new gadgets being introduced, the social adoption is pervasive. Today, even children are 'smart phone savvy' and use instant messaging and other social media. How do the different industries see the opportunities this changing digital land-scape presents? If they had a crystal ball to predict the future, where do they see their respective industries in a few years time? In a few decades?



JUNE 11 14:00– 15:30 Lilla Hörsalen



Vandana Kabilan, moderator



Nicholas Millman



Alexandra "Saška" Mojsilović



Kabilan Seenivasagan



Elisabeth Stjernstoft

#### Moderator and Panelists

Vandana Kabilan has been working for nearly 20 years in Information Systems with both structured and unstructured data. She started with relational databases. and ERP systems and moved on to enterprise collaboration and knowledge management. Vandana holds a technology doctorate in ontologies/semantic web technologies from Royal Institute of Technology. Currently, Vandana works as a solution architect at Accenture. Her current interests are helping organisations with making sense of exploding data, getting the right information to the right person in time, and getting business insights from unstructured information.

Please find *Nick Millman's* and *Saška Mo-jsilović's* biographies in the Tutorials section.

Kabilan Seenivasagan is working as Business & Sales Director for Cloud & IP segment within Ericsson. Kabilan is a hardcore ICT professional with over 20

years of experience working globally with different markets and customers. He has experienced the Mobile Network Evolution from voice-based services, to the introduction of SMS to data-hungry services and now moving into Data Cloud & Analytics.

Elisabeth Stjernstoft has been a leader in the Swedish IT community for several years. She has been Chairman of the Board in Dataföreningen i Sverige, Stockholmskretsen. She is founder and chairman of Mission Possible Sweden, which is an NGO helping street children in Russia and Eastern Europe. She has worked as CIO of Bring Citymail Sweden AB, and she is presently CIO of Apoteket AB.



16:00-

17:30

Hörsalen

Lilla

#### Panel 2 - Design Science in Information Systems Engineering

Design science has emerged as a promising research framework for carrying out relevant as well as rigorous research within the information systems area in general, and information systems engineering, in particular. The CAiSE'15 panel on design science gathers a number of distinguished scholars to discuss recent developments in design science research, including methodologies for artifact evaluation, standards for design science research, the

role of theory in applied research, the difference between design and empirical research, the possibility that design science is sometimes applied ritualistically to legitimate research whose execution it did not influence significantly, the role of development theory and the incremental nature of theory formation in design science research, and the role of users and participation in design research.



Erik Perjons, moderator



Matti Rossi



Tuure Tuunanen



Steven Alter

#### Moderator and Panelists

Erik Perjons, Ph D, holds a position as a senior lecturer (assistant professor) at the Department of Computer and Systems Sciences (DSV), Stockholm University. I have worked at the department since 1999. My research and teaching interest includes areas such as enterprise and conceptual modeling, business process management, model-driven development, oriented architecture, system integration, knowledge management, business intelligence and qualitative research methods. A main focus has been on identifying, understanding and analyzing practical problems in organizations, and designing business and IT solutions





John Venable

Roel Wieringa

addressing these problems. Ι published over 60 papers in international journals and peer-review conference proceedings, published four books and several book chapters, participated in domestic and international several research projects in domains such as ehealth, e-government and telecom, and supervised over 25 master thesis. I also have an university degree in journalism and has worked as journalist at several Swedish newspapers. Moreover, I have worked as a media analyst, analyzing how organizations or products are portrayed in different media such as newspapers, television and the internet.

Matti Rossi is a professor of information systems at Aalto University School of Economics. He has worked as research fellow at Erasmus University Rotterdam, visiting assistant professor at Georgia State University, Atlanta and visiting researcher at Claremont Graduate University. He has been the principal investigator in several major research projects funded by the technological development center of Finland and Academy of Finland.

His research papers have appeared in journals such as MIS Quarterly, Journal of AIS, Information and Management and Information Systems. He has been a senior editor of JAIS and Database for Advances of Information Systems and he is editor of Communications of the Association for Information Systems. Matti Rossi is a member of IEEE, ACM and AIS.

Tuure Tuunanen is a professor in the Department of Computer Science and Information Systems at the University of Jyväskylä. He is also a global faculty fellow of the Center for Service Leadership at Arizona State University. He holds a DSc (Econ) from the Helsinki School of Economics. His research has been in the crosssections of information systems, software engineering, and marketing science and is interested in multi-disciplinary research in the area of service innovation. His current research interests lie in the areas of information systems development methods and processes, service engineering, and IT enabled services. Dr. Tuunanen's research has been published, e.g., at J. of Management Information Systems, J. of Association for Information Systems and J. of Service Research. He is an AE of I. of Service Research. More about his research can be found at http://www.tuunanen.fi.

Please find *Steven Alter's and John Venable's* biographies in the Tutorials section. Read more about *Roel Wieringa* in the Invited talk section.



## **Working Conferences**

# BPMDS'15-International Conference on Business Process Modeling,Development, and Support

JUNE 08-09 The topics addressed by the BPMDS series are focused on business processes and their IT support. This is one of the keystones of information systems theory beyond shortlived fashions. The continued interest in this topic on behalf of the IS community is reflected by the success of the past BPMDS events, and their promotion from a workshop to a working conference.

The BPMDS series has produced fourteen events from 1998 to 2013. From 2011, BPMDS has become a two-day working conference attached to CAiSE (Conference on Advanced Information Systems Engineering).

The basic principles of the BPMDS series are: (1) BPMDS serves as a meeting place

for researchers and practitioners in the areas of business development, and business applications (software) development, (2) The aim of the event is mainly discussions, rather than presentations, (3) Each event has a theme that is mandatory for idea papers, and (4) Each event's results are, usually, published in a special issue of an international journal.

The topics addressed by the BPMDS series are focused on business processes and their IT support. This is one of the keystones of information systems theory beyond short-lived fashions.

This is the 16th edition of the BPMDS series.

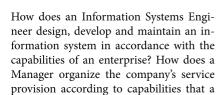


# EMMSAD'15–Exploring Modelling Methods for Systems Analysis and Design

JUNE 08-09 The field of information systems analysis and design includes numerous information modelling methods and notations (e.g. ER, ORM, UML, ArchiMate, EPC, BPMN, DEMO) that are typically evolving. Even with some attempts to standardize (e.g. UML for object-oriented software design), new modelling methods are constantly being introduced, many of which differ only marginally from previous approaches. These ongoing changes significantly impact the way information systems, enterprises, and business processes are being analyzed and designed in practice.

The EMMSAD conference focuses on exploring, evaluating, and enhancing modelling methods and methodologies for the analysis and design of information systems, enterprises, and business processes. Though the need for such studies is well recognized, there is a paucity of such research in the literature. The objective of the EMMSAD conference series is to provide a forum for researchers and practitioners interested in modelling methods for systems analysis and design to meet, and exchange research ideas and results. It also provides the participants an opportunity to present their research papers and experience reports, and to take part in open discussions.

#### ASDENCA 2015 – 2nd International Workshop on Advances in Services DEsign based on the Notion of CApability

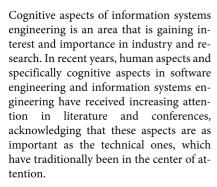


company may have, or develop or acquire in order to ensure a sustainable business? These are just two of the overarching questions that the ASDENCA workshop will address this year.



09

#### COGNISE 2015 – 3rd International Workshop on Cognitive Aspects of Information Systems Engineering



The goal of this workshop is to provide a better understanding and more appropriate support of the cognitive processes and challenges practitioners experience when performing information systems development activities. Understanding the challenges and needs, educational programs as well as development supporting tools and notations may be enhanced for a better fit to our natural cognition, leading to better performance of engineers and higher systems' quality.

09

#### DiFenSE 2015 – 1st International Workshop on Digital Business Innovation and the Future Enterprise Information Systems Engineering

Disruptive technological change has contributed in the last decade to accelerate the transition from a business-driven culture to a more 'social-oriented' one. Open innovation has become more influential and models of production and value creation are changing. The advent of social media, cloud computing, big data and the Internet of things outlines a new idea of socioeconomic organization, exemplified by the App Economy, already emerging as a collection of interlocking innovative ecosystems. "New Forms of Enterprises" emerge, driven by constant business model trans-

formation and innovation, acting as multisided platforms built on -as well as emerging from-digital innovations at the global, as well as local level, to produce shared value including that beyond monetisation. The scope of the 1st International Workshop on Digital Business Innovation and the Future Enterprise Information Systems Engineering (DiFenSE 2015) encompasses all aspects of digital business innovation and the role of information systems engineering and conceptual modelling for design thinking and the discovery and exploitation of digital opportunities. Thus,



09

the workshop aims to promote and exchange ideas on the role and use of information systems engineering for future digital enterprises, digital business innovation and web entrepreneurship. The workshop is powered by the FP7 Future Enterprise Project Consortium.



#### EM 2015 - Enterprise Modeling

JUNE 08 The purpose of this workshop is to focus on a core topic in business and information systems engineering research. Enterprise modeling is an established approach for the conceptual representation, design, implementation and analysis of information systems and has gained much attention in academia as well as in industry. Enterprise modeling is today of primary importance to develop, analyze and deploy information systems that operate in today's user-driven world with massive amounts of exchanged information. It contributes with the conceptualization, implementation, and use of machine processable languages to facilitate the interacwith complex business technological scenarios, engage in knowledge management and support organizational engineering. In addition, the development of reference models for selected domains, the design of generic models for enterprise architecture management, and the development of modeling tools are investigated.

In this workshop the discussion shall be fostered both on the foundations and applications in enterprise modeling, as well as on the model-based development and evolution of enterprise- wide IS from a conceptual / business perspective. For the description of innovative and rigorously elaborated research results a wide variety of research methodologies are welcomed including but not limited to the use of mathematical modeling, simulation, case studies, and prototyping methodologies. Session 2 of the workshop will include an invited talk by Ulrich Frank, University of Duisburg-Essen, entitled "Multilevel Modelling: Toward a new Paradigm of Developing, Using and Maintaining (Enterprise) Software Systems". Please view the workshop web page for more information.



# EOMAS 2015 – 11th International Workshop on Enterprise & Organizational Modeling And Simulation

JUNE 08-09 EOMAS is a flagship annual event of the Association for Information Systems Special Interest Group on Modeling And Simulation (SIGMAS).

In modern enterprises and their business process management and decision making, modeling and simulation (M&S) play a significant role. The main focus of EO-MAS is on the role, importance, and appli-

cation of modeling and simulation within the extended organizational and enterprise context. This context implies that systems and software applications are designed to enable certain business processes, and to facilitate interaction of the actors, the system, and the environment. Thus, application of modeling and simulation in this extended context involve a

number of socio-technical aspects (Information Systems (IS), Enterprise Information Systems (EIS), Software Systems, and Business Systems, Business Processes, Human Interaction, etc.).

EOMAS is aimed to become a major outlet

The i\* framework, facilitating goal-ori-

ented information systems modeling, has

received much attention at the CAiSE con-

ference and at other venues. This year the

iStarT workshop will focus specifically on topics related to i\* and goal-oriented ped-

agogy. Over the years, researchers and ed-

accumulated experience in teaching i\* and

related languages (e.g., GRL and Tropos),

at both the undergraduate and graduate

levels, to students with a wide variety of

backgrounds (e.g., computer science, information management, business ana-

lysts), or to practicing professionals. The workshop will provide an opportunity to

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and networking opportunity for researchers, practitioners, and educators interested in the development and application of modeling and simulation within the enterprise and organizational context.

#### iStarT 2015 – First International iStar Teaching Workshop

share and discuss such experiences. Relevant topics include organization of teaching materials, goal-oriented learning objectives, teaching formats and learning styles, individual and team learning, exercises and evaluation methods, tool support, staged or incremental introduction of

for different audiences, prerequisites, and learning curve. The objective of the workshop is to share knowledge and teaching materials, ex-

i\* concepts and techniques, differentiation

knowledge and teaching materials, exchange ideas, stimulate discussion, foster improved i\* teaching practices, and facilitate inclusion of i\* in educational content.

# RW-BPMS 2015 – 1st Workshop on Real-World Objects in Business Process Management Systems

The increased availability of sensors disseminated in the world has lead to the possibility to monitor in detail the evolution of several real-world objects of interest. GPS receivers, RFID chips, transponders, detectors, cameras, satellites, etc. concur in the depiction of the current status of monitored things. Therefore, the opportunity arose to connect physical reality to digital information. The screening of real-world objects makes indeed sensors the interface towards real-world information, as they are the originators of machine-readable events. The exploitation of such knowl-

edge is leading to successful applications such as Smart Cities, Flight Monitoring, Pollution Control, Internet of Things, and Dynamic Manufacturing Networks.

The amount of information at hand would consent a fine-grained monitoring, mining, and decision support for business processes, stemming from the joint observation of business-related objects in real world. However, the main focus of process and data analysis in Business Process Management (BPM) still lies at a high level of abstraction, such as activities' status, and is based on digital-to-digital informa-



JUN 09



08

tion, such as information systems' dataand activity-centric logs. Furthermore, a limited investigation from the BPM community has been evinced towards the physical-to-digital bridge so far. Such bridge would be naturally provided by rethought information systems, where the knowledge extracted from real-world objects would best depict the contingencies and the context in which business processes are carried out. At the same time, awareness of physical reality for undertaken actions would allow for a better control over the interaction that the Business Process Management Systems has with the real world.

The objective of the RW-BPMS workshop is therefore to attract novel research and industry approaches investigating the connection of business processes with real-world objects monitoring. Conceptual, technical and application-oriented contributions are pursued within the scope of this theme.



# STPIS 2015 – 1st International Workshop on Socio-Technical Perspective in IS development

Despite that a socio-technical perspective have been around for over a half century, it is often forgotten in the IS discourse today. Consequently, many "new approaches" appear to reflect on IS systems problem such as modern IT systems poorly adjusted to the external or/and internal environment (e.g. market, organizational culture) of organizations in which they are (to be) deployed. We strongly believe that it is high time the social-technical per-

spective took its proper place in IS research, practice and teaching.

The main purpose of the workshop is to arrange discussions on using a sociotechnical perspective in IS development, the long term goal being to make this workshop a meeting place for the community of IS researchers and practitioners interested in the socio-technical approach.



#### TEAR 2015 - Trends in Enterprise Architecture Research

JUNE 08

The international TEAR workshop series brings together Enterprise Architecture (EA) researchers from different research communities and provides a forum to present EA research results and to discuss future EA research directions. The field of Enterprise Architecture (EA) has gained considerable attention over the last of years. EA is important because organizations need to adapt increasingly fast to changing customer requirements and business goals. This need influences the

entire chain of activities of an enterprise, from business processes to IT support. Moreover, a change in a particular part of the overall architecture may influence many other parts of the architecture. For example, when a new product is introduced, business processes for production, sales and after-sales need to be adapted. It might be necessary to change applications, or even adapt the IT infrastructure. Each of these fields will have its own (partial) architectures. To keep the enterprise ar-

chitecture coherent and aligned with the business goals, the relations between these different architectures must be explicit, and a change should be carried through methodically in all architectures. In contrast to traditional architecture management approaches such as IT architecture, software architecture or IS architecture, EA explicitly incorporates "pure" business-related artifacts in addition to tradi-

tional IS/IT artifacts. For Enterprise Architecture the focus is on the overall enterprise and concerns its organization, its components, the relationship between components and principles governing its design and evolution.

# WISSE 2015 – Fifth International Workshop on Information Systems Security Engineering

Information systems security problems are currently a widespread and growing concern that covers most of the areas of society, such as business, domestic, financial, government, healthcare, and so on. The scientific community has realized the importance of aligning information systems engineering and security engineering in order to develop more secure information systems. Nevertheless, there is lack of an appropriate event that will promote information systems security within the context of information systems engineering. The proposed workshop fulfils this gap.

The workshop aims to provide a forum for researchers and practitioners to present, discuss and debate on one hand the latest research work on methods, models, practices and tools for secure information systems engineering, and on the other hand relevant industrial applications, recurring challenges, problems and industrial led solutions at the area of secure information systems engineering.

JUNE 08



#### Conference

JUNE 10–12

Information systems engineering is a discipline focused on the design of artifacts that can extend the boundaries of human and organizational capabilities. So far, most work within information systems engineering has focused on the science component with major contributions in areas ranging from data mining techniques participative enterprise modeling methods. However, systems are moving beyond traditional information management and need to organically blend into the environment, appealing to large and diverse user bases.

Creativity, Ability, and Integrity are some important components not well covered. Creativity is becoming ever more important as Information Systems are

designed in novel and unexpected ways making use of information from different sources that need to be merged and molded to become meaningful and valuable. Ability enables systems to be capable to deliver business in excellent, competitive and agile way. The task of Integrity is to ensure quality in ethical codes – modifications by authorized parties, or only in authorized ways. Success in this endeavor requires methods not only based on scientific rigor but also innovating solutions beyond the state of the art.



#### Doctoral consortium

JUNE 11–12 The CAiSE'15 Doctoral Consortium will be the 22nd Doctoral Consortium of a series held in conjunction with the CAiSE conference series. It is intended to bring together PhD students working on foundations, techniques, tools and applications of Information Systems Engineering and provide them with an opportunity to present and discuss their research to an audience of peers and senior faculty in a supportive environment, as well as to participate in a number of plenary sessions with Information Systems academics.

The goals of the Doctoral Consortium are: (1) to provide fruitful feedback and advice to the selected PhD students on their research project, (2) to provide the opportunity to meet experts from different backgrounds working on topics related to

the Information Systems Engineering field, (3) to interact with other PhD students and stimulate an exchange of ideas and suggestions among participants, and (4) to provide the opportunity to discuss concerns about research, supervision, the job market, and other career-related issues. To be eligible for the Doctoral Consortium, the candidate must be a current docstudent within a recognized university. Ideally, the candidate should have at least 6-12 months work remaining before expected completion (and at least 12 month of work already performed).

#### Forum



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The CAiSE Forum is a place within the CAiSE conference for presenting and discussing new ideas and tools related to information systems engineering. Intended to serve as an interactive platform, the forum aims at the presentation of emerging new topics, case studies as well as demonstration of innovative systems, tools and applications. The Forum sessions at the CAiSE conference will facilitate interaction, discussion, and exchange of ideas among presenters and participants.

The CAiSE Forum welcomes all submissions that fall in the domain of information systems engineering and the CAiSE conference topics. The special theme of this year's conference is Creativity, Ability and Integrity in information Systems Engineering. Other main subject areas are: New generation IS engineering, Multi-aspect IS, Architectures and Platforms, Models, Methods and Techniques in IS Engineering and Domain specific IS engineering.

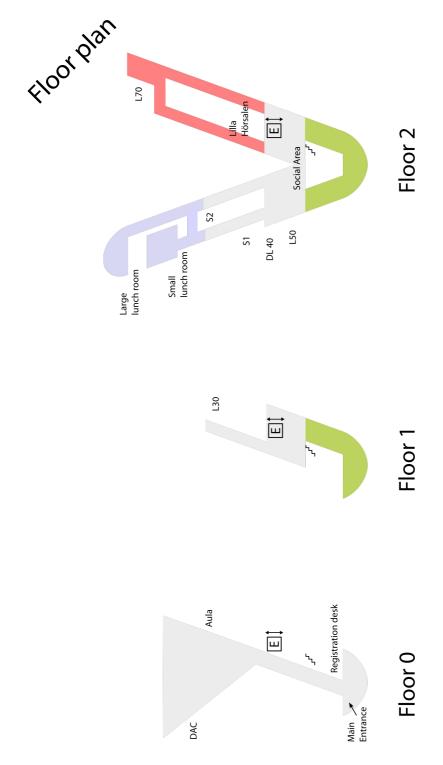
## Industry track



Business intelligence and analytics has emerged as an important area of innovation and industrial application as well as for research and higher education. This development reflects the magnitude and impact of problems faced by contemporary organizations in application areas like eCommerce and Market Intelligence, eGovernment and Politics and Health and Wellbeing. The potential of fast-growing and large amounts of structured and unstructured data from open sources, internet of things and new and collaborative analysis methods such as big data analytics, text analytics and network analytics challenge current models used for business control and organizational decision making. The impact on software tools is profound and vendors compete by including advanced functionality for neural networks, multivariate statistics, search encomputational linguistics mathematical network models available on any platform promoting mobility and flexibility. The impact on private and pub-

lic organizations is expected to be vast including new business models, organizational and technical change and the introduction of specialist roles, such as data scientist and data analyst.

In this year's CAiSE industry track the theme is "Bridging research, innovation and application in Big data and Internet of Things for sustainable results". We welcome contributions from industry that captures innovative applications of Big data and Analytics and Internet of things to achieve sustainable results. The track is open to practitioners as well as researchers with a clear contribution to practice. We anticipate relevant contributions from any private or public domain highlighting implications on business models, technology, organization and results. Moreover, the Industry track would like to promote networking between participants arranging social events.



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				Со	offee					10:30
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# Friday 2

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# Working Conferences schedule

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# BPMDS-International Conference on Business Process Modeling, Development, and Support

JUNE 08	EMMSAD/BPMDS - Session 1: Joint Keynote
09:00– 10:30	Hybrid Models
10.30	Hajo Reijers
Aula	VU University Amsterdam and Eindhoven University of Technology, The Netherlands Please find detailed info about the talk and the speaker online
JUNE 08 10:30-	Coffee
11:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 08 11:00-	BPMDS - Opening BPMDS'2015 - Session 2: Enabling value creation Chair: Pnina Soffer
12:30 Lilla	On the Fragmentation of Process Information: Challenges, Solutions, and Outlook (idea paper)
Hörsalen	Han van der Aa, Henrik Leopold, Felix Mannhardt and Hajo A. Reijers
	Creating Self-Managing Cross-Professional Teams with Metaphoric Business Process Support Systems (idea paper)  Ilia Bider and Amin Jalali, David Söderström
JUNE 08	Lunch
12:30– 14:00	
Social Area	Lunch is served in the Lunch room
JUNE 08 14:00-	BPMDS - Session 3: Human centric paradigms
15:30	Chair: Gil Regev Mining the Organisational Perspective in Agile Business Processes
Lilla	Stefan Schönig, Cristina Cabanillas, Stefan Jablonski and Jan Mendling.
Hörsalen	Changing the focus of an organization: from Information Systems to Process Aware
	Information Systems (Experience Report)  Andrea Delgado and Daniel Calegari
	Process Knowledge Discovery, Role Recommender and Social Tagging to enable Social Business Process Management
	Mohammad Ehson Rangiha, Marco Comuzzi and Bill Karakostas
JUNE 08 15:30-	Coffee
16:00 Social	Coffee, tea, and other refreshments are served in the Green area!

# Working Conferences schedule

BPMDS - Session 4: Mining for processes Chair: Ilia Bider Scalable Process Discovery with Guarantees Sander J.J. Leemans, Dirk Fahland and Wil van der Aalst Multidimensional Process Mining using Process Cubes Alfredo Bolt and Wil van der Aalst	JUNE 08 16:00– 17:30 Lilla Hörsalen
Workshop Dinner  Please see separate page in programme for more information.	JUNE 08 19:00– 23:00
BPMDS - Session 5: Understanding and sharing Chair: Rainer Schmidt Identifying and Quantifying Visual Layout Features of Business Process Models Vered Bernstein and Pnina Soffer Process Fragmentation: An Ontological Perspective Asef Pourmasoumi Hassankiadeh, Mohsen Kahani, Ebrahim Bagheri and Mohsen Asadi Using the Process-Assets Framework for Creating a Holistic View over Process Documentation: Experience Report Magnus Josefsson, Kim Widman and Ilia Bider	JUNE 09 09:00– 10:30 Lilla Hörsalen
Coffee, tea, and other refreshments are served in the Green area!	JUNE 09 10:30– 11:00 Social Area
BPMDS - Session 6: Declarative Approaches Chair: Selmin Nurcan Matching of Events and Activities—An Approach Using Declarative Modeling Constraints Thomas Baier, Claudio Di Ciccio, Jan Mendling and Mathias Weske. PQL—A Descriptive Language for Querying, Abstracting and Changing Process Models Klaus Kammerer, Jens Kolb and Manfred Reichert Enhancing declarative process models with DMN decision logic (idea paper) Steven Mertens, Frederik Gailly and Geert Poels	JUNE 09 11:00– 12:30 Lilla Hörsalen
Lunch is served in the Lunch room	12:30– 14:00 Social Area

## Working Conferences schedule

JUNE 09 BPMDS - Session 7: Quality and Security issues 14:00-Chair: Geert Poels 15:30 Lilla

Identifying Quality Issues in BPMN Models: an Exploratory Study

Cornelia Haisjackl, Jakob Pinggera, Pnina Soffer, Stefan Zugal, Shao Yi Lim and Bar-

Modeling and Reasoning about Information Quality Requirements in Business Processes

Mohamad Gharib and Paolo Giorgini

From Secure Business Process Models to Secure Artifact-Centric Specifications

Mattia Salnitri, Achim Brucker and Paolo Giorgini

Coffee JUNE 09

15:30-16:00

Hörsalen

Coffee, tea, and other refreshments are served in the Green area!

Social Area

**BPMDS - Session 8: New Areas for BPMDS** JUNE 09

16:00-Chair: Rainer Schmidt

16:30 PROtEUS: An Integrated System for Process Execution in Cyber-physical Systems Lilla Ronny Seiger, Steffen Huber and Thomas Schlegel

Hörsalen JUNE 09

**BPMDS - Session 9: Discussion & Closing** 

16:30-General discussion and closing

17:30 Lilla Hörsalen

#### EMMSAD - Exploring Modelling Methods for Systems Analysis and Design

JUNF 08 EMMSAD/BPMDS - Session 1: Joint Keynote

09:00-Hybrid Models 10:30 Hajo Reijers

VU University Amsterdam and Eindhoven University of Technology, The Netherlands Aula

Please find detailed info about the talk and the speaker online

JUNE 08 Coffee

10:30-11:00

Social Area

Coffee, tea, and other refreshments are served in the Green area!

# Working Conferences schedule

EMMSAD - Opening EMMSAD'2015 - Session 2: Fundamental issues in modeling On the Support of Automated Analysis Chains on Enterprise Models Andrés Ramos, Juan Saenz, Mario Sánchez and Jorge Villalobos	JUNE 08 11:00- 12:30
Implementation and First Evaluation of a Molecular Modeling Language  Alexander Andersson and John Krogstie	Aula
Lunch  Lunch is served in the Lunch room	JUNE 08 12:30– 14:00 Social Area
EMMSAD - Session 3: Requirements and regulations Analyzing Variability of Cloned Artifacts: Formal Framework and its Application to Requirements Iris Reinhartz-Berger, Anna Zamansky and Mark Kemelman	JUNE 08 14:00– 15:30
Solving Semantic Disparity and Explanation Problems in Regulatory Compliance- A	Aula
Research-In-Progress Report with DSR Perspective Sagar Sunkle, Deepali Kholkar and Vinay Kulkarni	
Coffee  Coffee, tea, and other refreshments are served in the Green area!	JUNE 08 15:30– 16:00 Social Area
EMMSAD - Session 4: Meta-modeling and Domain specific modeling and model composition  Towards Metamodelling-In-The-Large: Interface-based Composition for Modular Metamodel Development	JUNE 08 16:00– 17:30
Srdjan Zivkovic and Dimitris Karagiannis Towards Static Analysis of Executable DSMLs using Model Typing Reza Gorgan Mohammadi and Ahmad Abdollahzadeh Barfourosh	Auia
Workshop Dinner	JUNE 08
Please see separate page in programme for more information.	19:00– 23:00
EMMSAD - Session 5: Enterprise and software ecosystem modelling Representing Dynamic Invariants in Ontologically Well-Founded Conceptual Models John Guerson and Joao Paulo Almeida	JUNE 09 09:00- 10:30
Designing Software Ecosystems: How Can Modeling Techniques Help?  Mahsa H. Sadi and Eric Yu	Aula
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# Working Conferences schedule

JUNE 09	Coffee
10:30– 11:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 09 11:00- 12:30	EMMSAD - Session 6: Information and process model quality Dealing with Information Quality Requirements Mohamad Gharib and Paolo Giorgini.
Aula	Understanding Model Quality Concerns when Using Process Models in an Industrial
Haid	Company Merethe Heggset, John Krogstie and Harald Wesenberg
JUNE 09 12:30-	Lunch
14:00 Social Area	Lunch is served in the Lunch room
JUNE 09 14:00– 15:30	EMMSAD - Session 7: Modeling of architecture and design Real-Time Design patterns: Architectural designs for automatic semi-partitioned and global scheduling Amina Magdich, Yessine Hadj Kacem and Adel Mahfoudhi
Aula	A Generic Traceability Framework for Model Composition Operation
	Youness Laghouaouta, Adil Anwar, Mahmoud Nassar and Jean-Michel Bruel
JUNE 09 15:30-	Coffee
16:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 09 16:00- 17:30	EMMSAD - Session 8: Novel applications of modeling (Short papers) Applying Predicate Abstraction to Abstract State Machines Alessandro Bianchi, Sebastiano Pizzutilo and Gennaro Vessio.
Aula	A Workaround Design System for Anticipating, Designing, and/or Preventing Workarounds
	Steven Alter
	An Evaluation of an Enhanced Model Driven Approach for Computer Game Creation Hong Guo, Shang Gao, Krogstie John and Hallvard Trætteberg

DEsign based on the Notion of CApability	
ASDENCA - Session 1: Opening, Invited Talk Many Truths about Business Capability - What Capability Modeling Brings to Different Enterprise Levels?  Irina Rychkova	JUNE 09 09:00– 10:30
Please see the workshop web page for Irina's biography and more details of the talk	DAC
Coffee, tea, and other refreshments are served in the Green area!	JUNE 09 10:30– 11:00 Social Area
ASDENCA - Session 2: Modeling and Capabilities Analyzing IT Flexibility to Enable Dynamic Capabilities Mohammad Hossein Danesh and Eric Yu	JUNE 09 11:00– 12:30
Processing for Business Process Execution Adjustment Jānis Grabis and Janis Stirna	DAC
Strategies for Capability Modelling: Analysis based on Initial Experiences Sergio España, Janis Grabis, Martin Henkel, Hasan Koç, Kurt Sandkuhl, Janis Stirna and Jelena Zdravkovic	
Lunch  Lunch is served in the Lunch room	JUNE 09 12:30– 14:00 Social Area
ASDENCA - Session 3: Applying Capabilities-based Approaches in Practice Towards Systemic Risk Management in the frame of Business Service Ecosystem Christophe Feltus, François-Xavier Fontaine and Eric Grandry Investigating the potential of Capability-driven Design and Delivery in an SME case study	JUNE 09 14:00– 15:30 DAC
Kurt Sandkuhl	
Coffee, tea, and other refreshments are served in the Green area!	JUNE 09 15:30– 16:00 Social Area
ASDENCA - Session 4: Panel A number of panel participants	JUNE 09 16:00– 17:30

ASDENCA-The 2nd International Workshop on Advances in Services

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#### COGNISE 2015 - 3rd International Workshop on Cognitive Aspects of Information Systems Engineering

		miormation systems Engineering
	JUNE 09 09:00– 10:30 L30	COGNISE - Welcome & Keynote  Chair: Irit Hadar  Welcome: Workshop overview and objectives; brief introduction of participants  Keynote: Theoretical Reasoning in Case-Based Research  Roel Wieringa
	JUNE 09 10:30– 11:00 Social Area	Coffee  Coffee, tea, and other refreshments are served in the Green area!
	JUNE 09 11:00– 12:30	COGNISE - Paper Session 1: Business Processes  Chair: Barbara Weber  How does it look? Exploring meaningful layout feature of process models  Vered Bernstein and Pnina Soffer
	L30	Toward guiding process modelers depending upon their expertise level Jonas B. Gassen, Jan Mendling, Lucinéia Heloisa Thom, and José Palazzo M. de Oliveira Advanced dynamic role resolution in business processes Irene Vanderfeesten and Paul Grefen
	JUNE 09 12:30– 14:00 Social Area	Lunch is served in the Lunch room
	JUNE 09 14:00– 15:30 L30	COGNISE - Paper Session 2: Software Development  Chair: Irene Vanderfeesten  A Position paper proposing behavioral solutions to challenges in software development projects  Ofira Shmueli, Nava Pliskin and Lior Fink
		To document or not to document? An exploratory study on developers' motivate to document code

document code

Yulia Shmerlin, Irit Hadar, Doron Kliger and Hayim Makabee

When a paradigm is inconsistent with intuition: The case of inconsistency management

Irit Hadar and Anna Zamansky

An argument for more user-centric analysis of modeling languages' visual notation quality

Dirk van der Linden

Coffee, tea, and other refreshments are served in the Green area!	JUNE 09 15:30– 16:00 Social Area
COGNISE - Presentation Session: Future Research Directions Chair: Pnina Soffer Difficulties and challenges in requirements discovery in open source software development	JUNE 09 16:00– 17:30
opment	L30

Jaison Kuriakose and Jeffrey Parsons

Exploring Students' Perceptions of the Role of Logic in Information Systems Education Anna Zamansky and Eitan Farchi

Gamifying Software Development Environments Using Cognitive Principles Naomi Unkelos-Shpigel and Irit Hadar

#### DiFenSE 2015 – 1st International Workshop on Digital Business Innovation and the Future Enterprise Information Systems Engineering

**DiFenSE - Session 1: BUSINESS MODEL INNOVATION** Some Heuristics for Digital Business Model Configuration

Darek M. Haftor

Inherent cognitive dependencies in the transformation of business models from non-digital to digital

Erdelina Kurti

Capability-as-a-Service: Investigating the Innovation Potential from a Business Model Perspective

Kurt Sandkuhl, Janis Stirna



JUNE 09 09:00– 10:30

150

JUNE 09 11:00- 12:30	DiFenSE - Session 2: SERVICE AND DIGITAL PLATFORMS INNOVATION Supporting Service Innovation through a Value Development Framework Yannick Lew Yaw Fung and Arne J. Berre
L50	Designing Software Ecosystems: How to Develop Sustainable Collaborations? Scenarios from Apple iOS and Google Android <i>Mahsa H. Sadi, Jiaying Dai, Eric Yu</i>
	Fitness of business models for digital collaborative platforms in clusters: a case study Luca Cremona, Aurelio Ravarini, Gianluigi Viscusi
JUNE 09 12:30-	Lunch
14:00 Social Area	Lunch is served in the Lunch room
JUNE 09 14:00– 15:30	DiFenSE - Session 3: DIGITAL ENTREPRENEURSHIP AND ENTERPRISE INNO- VATION  Accelerating Web-Entrepreneurship in Local Incubation Environments
L50	Carlos Agostinho, Fenareti Lampathaki, Ricardo Jardim-Goncalves, Oscar Lazaro Challenges laying ahead for Future Digital Enterprises: A Research Perspective Iosif Alvertis, Panagiotis Kokkinakos, Sotirios Koussouris, Fenareti Lampathaki, John Psarras, Gianluigi Viscusi, Christopher Tucci
	Summary and Conclusion of DiFenSE2015
JUNE 09 15:30– 16:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 09 16:00- 17:30 L50	DiFenSE - Session 4: OPEN BRAINSTORMING SESSION ON RESEARCH CHAL- LENGES Brainstorming! All workshop participants

EM 2015 – Enterprise Modeling  EM/EMMSAD/BPMDS - Joint Keynote  Hybrid Models  Hajo Reijers. VU University Amsterdam and Eindhoven University of Technology, The	JUNE 08 09:00– 10:30
Netherlands	Aula
Coffee	JUNE 08 10:30– 11:00 Social Area
EM - Session 1 Chair: Dimitris Karagiannis Welcome and Introduction to the Workshop Dimitris Karagiannis	JUNE 08 11:00– 12:30
Invited Talk by Ulrich Frank	DAC
Multilevel Modelling: Toward a new Paradigm of Developing, Using and Maintaining (Enterprise) Software Systems	
Please find detailed info about the talk and the speaker online	
Lunch  Lunch is served in the Lunch room	JUNE 08 12:30– 14:00 Social Area
EM - Session 2	JUNE 08
Chair: Matti Rossi The Devil in the Details: Fine-grained Enterprise Model Weaving David Naranjo, Mario Sánchez and Jorge Villalobos	14:00– 15:30
Extending Feature Models to Express Variability in Business Process Models	DAC
Flavio Corradini, Riccardo Cognini, Andrea Polini and Barbara Re Towards Flexible and Efficient Process and Workflow Support in Enterprise Modeling Andreas Demuth, Markus Riedl-Ehrenleitner, Roland Kretschmer, Peter Hehenberger, Klaus Zeman and Alexander Egyed	g
Coffee	JUNE 08 15:30– 16:00 Social Area

JUNE C	D8 EM - Session 3
16:00-	- Chair: Dimitris Karagiannis
17:30	Enterprise Architecture for Business Network Planning: a Capability-Based Approach Adel Bakhtiyari, Alistair Barros and Nick Russell
DAC	Extending Enterprise Architectures to Capture Consumer Values: the Case of TOGAF Eric-Oluf Svee and Jelena Zdravkovic
	Ontology-Driven Enterprise Modelling in Practice: Experiences from Industrial Cases Kurt Sandkuhl, Alexander Smirnov, Nikolay Shilov and Hasan Koç
	Closing and Farewell
JUNE 0	08 Workshop Dinner

JOINE OU	Workshop Diffier
19:00-	
23:00	Please see separate page in programme for more information.
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JUNE 08

# EOMAS 2015 – 11th International Workshop on Enterprise & Organizational Modeling And Simulation

	JUNE 08	EOMAS - Session 1
	09:00-	Chair: Robert Pergl
	10:30	Welcome and opening
	L70	Keynote - Model-Driven Software Engineering: A Behavioural Perspective <i>Adrian Rutle</i>
		Please find detailed info about the talk and the speaker online
	JUNE 08	Coffee
	10:30– 11:00	
	Social	Coffee, tea, and other refreshments are served in the Green area!
	Area	
	JUNE 08	EOMAS - Session 2
	11:00-	Chair:Vojtech Merunka
	12:30	Natural Language Generation for Declarative Process Models
	1.70	Lars Ackermann, Stefan Schoenig, Michael Zeising and Stefan Jablonski
	L70	Generating Event Logs through the Simulation of Declare Models

Formalising Responsibility Modelling for Automatic Analysis *Robbie Simpson and Tim Storer* 

Claudio Di Ciccio, Mario Luca Bernardi, Marta Cimitile and Fabrizio Maria Maggi

23:00

Lunch	JUNE 08 12:30-
Lunch is served in the Lunch room	14:00 Social Area
EOMAS - Session 3	JUNE 08
Chair: Victor Romanov	14:00-
Interactive Transformation Path Generation Using Business Support Maps Philipp Diefenthaler, Melanie Langermeier and Bernhard Bauer	15:30
Towards a Business Process Model Transformations Framework  Khoutir Bouchbout and Saber Marouf	L70
ICNETS: Towards Designing Inter-Cloud Workflow Management Systems by Reference Nets	
Dahou Sofiane Bendoukha, Hayat Bendoukha and Daniel Moldt	
Coffee, tea, and other refreshments are served in the Green area!	JUNE 08 15:30– 16:00 Social Area
EOMAS - Session 4	JUNE 08
Chair: Robert Pergl	16:00-
Big data analytics for supply chain management: A literature review and research agenda	17:30
Samuel Fosso Wamba and Shahriar Akter	L70
One Solution for Semantic Data Integration in Logistics Elena A. Andreeva, Tatiana A. Poletaeva, Habib Abdulrab and Eduard A. Babkin	
Formal Grammar Approach to the Virtual Enterprise Synthesis as Web-Services	
Composition by Parsing Algorithm	
Victor Romanov, Ekaterina Yudakova and Svetlana Efimova	
	IIINE 00
Workshop Dinner	JUNE 08 19:00-

Please see separate page in programme for more information.

JUNE 09	EOMAS - Session 5
09:00-	Chair: Vojtech Merunka
10:30	Towards Detecting Misalignment Symptoms: An Alignment Perspective-Driven Ar-
L70	chitecture-Matching Framework
L/U	Dora Ori
	A Wide-Spectrum Approach to the Modelling and Analysis of Organisation for machine-assisted Decision Making Souvik Barat, Vinay Kulkarni, Tony Clark and Balbir Barn
	Lessons Learned from Modeling and Experimental Prototype Development for KPI Acquisition and Analysis from Legacy ERP Systems by Enabling Process Awareness Gundars Alksnis, Erika Asnina, Anita Finke and Marite Kirikova
JUNE 09	Coffee
10:30-	Confee
11:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 09	EOMAS - Session 6
11:00-	Chair: Samuel Fosso Wamba
12:30	Model Checking Web Services Choreography
1.70	Arbia Ben Azaiez and Zohra Sbaï
L70	Revisiting the BORM OR Diagram Composition Pattern  Martin Podloucký and Robert Pergl
	Object-Oriented Conceptual Modeling and Simulation of Health Care Processes
	Radek Hřebík, Vojtěch Merunka, Zuzana Kosejková and Pavel Kupka
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JUNE 09	Torred.
12:30-	Lunch
14:00	I
Social	Lunch is served in the Lunch room

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#### iStarT 2015 – First International iStar Teaching Workshop

iStarT - Welcome & Paper Session 1	JUNE 09
Chair: Xavier Franch	09:00-
Workshop Welcome	10:30
Teaching Goal Modeling in Undergraduate Education  Fabiano Dalpiaz	S2
Teaching Information Systems: an i*-based approach  Juan Pablo Carvallo	
Observational Studies of new i* Users: Challenges and Recommendations Jennifer Horkoff	
Session Summary & Discussion	
Coffee	JUNE 09 10:30– 11:00
Coffee, tea, and other refreshments are served in the Green area!	Social Event
iStarT - Keynote & Paper Session 2	JUNE 09
Chair: John Mylopoulos	11:00-
Keynote	12:30
Oscar Pastor	S2
Please find detailed info about the talk and the speaker online	
i* Instruction in Mixed Student Cohort Environments	
Eric-Oluf Svee and Jelena Zdravkovic	JUNE 09
Lunch	12:30– 14:00
	Social
Lunch is served in the Lunch room	Event
iStarT - Paper Session 3	JUNE 09
	14:00-
Teaching i* alongside a contrasting modeling framework  Chair: Fabiano Dalpiaz	15:30

On the Learnability of i\*: Experiences from a New Teacher *Amel Bennaceur, James Lockerbie and Jennifer Horkoff*Session Summary & Discussion

Elda Paja, Jennifer Horkoff and John Mylopoulos

Eric Yu, Lysanne Lessard, Zia Babar, Soroosh Nalchigar and Jennifer Horkoff

Instructional experiences with modeling and analysis using the i\* framework Zia Babar, Soroosh Nalchigar, Lysanne Lessard, Jennifer Horkoff and Eric Yu The importance of teaching goal-oriented analysis techniques: an experience report

JUNE 09	Coffee
15:30-	
16:00	Coffee, tea, and other refreshments are served in the Green area!
Social	
Event JUNE 09	iStarT - Paper Session 4, Standardization & Discussion
16:00-	Chair: Eric Yu
17:30	The Monopoly Game to Teach ERi*c - Intentional Requirements Engineering
	Antonio De Padua A. Oliveira, Vera Werneck, Julio Cesar Leite and Luiz Marcio Cys-
S2	neiros
	Standardization Effort Update and Discussion
	All participants
	Workshop Discussion, Future Plans
	All participants
	RW-BPMS 2015 – 1st Workshop on Real-World Objects in Business
	Process Management Systems
JUNE 08	RW-BPMS - Session 1
09:00-	Welcome
10:30	Keynote - When Processes Rule Event Streams
	Avigdor Gal
<b>S</b> 1	Please find detailed info about the talk and the speaker online
	The Things of the Internet of Things in BPMN
	Sonja Meyer, Andreas Ruppen and Lorenz Hilty
JUNE 08	, ,
10:30-	Coffee
11:00	
Social	Coffee, tea, and other refreshments are served in the Green area!
Area	
JUNE 08	RW-BPMS - Session 2
11:00-	Applying Process Mining to Smart Spaces: Perspectives and Research Challenges
12:30	Francesco Leotta, Massimo Mecella and Jan Mendling
	Factors affecting ocean-going cargo ship speed and arrival time
S1	Erwin Filtz, Emanuel Sanchez de La Cerda, Mathias Weber and David Zirkovits
	Monitoring Batch Regions in Business Processes
	Tsun Yin Wong, Susanne Bülow and Mathias Weske
	Closing
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Please see separate page in programme for more information.

JUNE 08

19:00-23:00 **Workshop Dinner** 

# STPIS 2015 – 1st International Workshop on Socio-Technical Perspective in IS development



STPIS - Session 1: Opening

Chair: Stewart Kowalski

Keynote: Designing software for a million users: it's not about the technology Ian Sommerville

Please see details about the keynote and the speaker online

JUNE 09 09:00– 10:30

Coffee

Coffee, tea, and other refreshments are served in the Green area!

JUNE 09 10:30– 11:00 Social Area JUNE 09

> 11:00-12:30

S1

STPIS - Session 2: Teaching and Practice

Chair: Ian Sommerwille

Teaching an Ethnographic Approach to Requirements Elicitation in an Enterprise Architecture Course. (experience report)

Gil Regev, Laura Regev, Yasmina Naïm, Julie Lang and Alain Wegmann

Socio-Technical Toolbox for Business Systems Analysis and Design" (experience report)

Peter Bednar and Moufida Sadok

Sociotechnical Systems through a Work System Lens: A Possible Path for Reconciling System Conceptualizations, Business Realities, and Humanist Values in IS Development (position paper)

Steven Alter

Lunch

12:30– 14:00 Social Area JUNE 09 14:00– rch 15:30

JUNE 09

Lunch is served in the Lunch room

STPIS - Session 3: Theory and Practice

Chair: Ilia Bider

Sociotechnical Systems (STS) in Coordination of Virtual Innovation Work (research paper)

Bert Painter, Pamela Posey, Douglas Austrom, Ramkrishnan Tenkasi, Betty Barrett and Betsy Merck

A Neurobiological Perspective on Socio-Technical Systems (research paper) *Lars Taxén* 

Modeling and analyzing Information Quality Requirements of Socio-technical Systems: Experience Report (experience report)

Mohamad Gharib and Paolo Giorgini

JUNE 09	C. W.
15:30-	Coffee
16:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 09	STPIS - Session 4: Diverse Issues
16:00-	Chair: Peter Bednar
17:30	Sociotechnical Requirements Specification – an example of continuous support for collaborative modelling and design (experience report)
S1	Thomas Herrmann and Alexander Nolte
	The Process Analysis as a Frame to Merge Social and Technical Issues in the Design of Information and Management Systems (position paper)  Paola Mauri
	Scaling up the engagement in participatory design (position paper)  Michela Cozza and Antonella De Angeli
	On the needs of representing feedback when modeling socio-technical systems (position paper)  Ilia Bider
JUNE 09	STPIS - Session 5: Posters
17:30– 18:00	Posters shown also during coffee breaks and lunch
16.00	Modelling and Analysing Socio-Technical Systems
S1	Zaruhi Aslanyan, Marieta Georgieva Ivanova, Flemming Nielson and Christian W. Probst
	HIPing Innovation Education in University. Introducing Socio-technical concepts for Cross-disciplinary teams in Applied Computer Sciences
	Mariusz Nowostawski, Stewart Kowalski and Jeffy Mwakalinga
	Closing



#### TEAR 2015 – Trends in Enterprise Architecture Research

09:00-10:30

L50

TEAR - Session 1: EA modeling and metamodeling

Revealing Hidden Structures in Organizational Transformation - A Case Study

Franz Heiser, Robert Lagerström and Mattin Addibpour

Enterprise architecture with executable modelling rules: A case study at the Swedish

Defence Materiel Administration

Mika Cohen, Michael Minock, Daniel Oskarsson and Björn Pelzer

Modeling Decisions for Collaborative Enterprise Architecture Engineering

Dierk Jugel, Christian M. Schweda and Alfred Zimmermann

Coffee, tea, and other refreshments are served in the Green area!	JUNE 08 10:30– 11:00 Social
	Area
TEAR - Session 2: EA value and benefits Towards an Enterprise Architecture Benefits Measurement Instrument Henk Plessius, Marlies van Steenbergen and Raymond Slot	JUNE 08 11:00– 12:30
Modelling Value with ArchiMate Adina Aldea, Maria Eugenia Iacob, Jos van Hillegersberg, Dick Quartel and Henry Franken	L50
Implementing Architectural Thinking: A Case Study at Commerzbank AG Stephan Aier, Nils Labusch and Patrick Pähler	
Lunch  Lunch is served in the Lunch room	JUNE 08 12:30– 14:00 Social
	Area
TEAR - Session 3: EA governance and management Data Governance on EA Information Assets: Logical Reasoning for Derived Data Bernhard Waltl, Thomas Reschenhofer and Florian Matthes	JUNE 08 14:00– 15:00
Success Factors for Federated Enterprise Architecture Model Management Pouya Aleatrati Khosroshahi, Sascha Roth, Matheus Hauder, Florian Matthes, Stephan Aier and Robert Winter	L50
Aler and Robert Winter	JUNE 08
TEAR - Session 4: EA in today's business landscape (part 1) Aligning Enterprise Architecture with Strategic Planning	15:00- 15:30
Carlos Azevedo, Marten van Sinderen, Luis Ferreira Pires and João Paulo Almeida	L50
	IIINE 00
Coffee	JUNE 08 15:30-
Coffee, tea, and other refreshments are served in the Green area!	16:00 Social Area
TEAR - Session 4: EA in today's business landscape (part 2) Enterprise Architecture in the Age of Digital Transformation Zia Babar and Eric Yu	JUNE 08 16:00– 16:30
	L50

JUNE 08 16:30-17:30

TEAR - Session 5: Workshop discussion on trends in EA research

Chair: tha

L50

JUNE 08 19:00-23:00

Workshop Dinner

Please see separate page in programme for more information.



WISSE 2015 – Fifth International Workshop on Information Systems **Security Engineering** 

JUNE 08 09:00-10:30

WISSE - Session 1: Welcome and Keynote

Chair: Haralambos Mouratidis

Chair: Nadira Lammari

L30

JUNE 08

10:30-

11:00

Social

Area

JUNE 08 WISSE - Session 2

Coffee

11:00-

12:30 L30

Optimizing Information Systems Security Design Based on Existing Security Knowledge

Andreas Schilling and Brigitte Werners

Presenter: Andreas Schilling; Discussant: Luis Márquez

Coffee, tea, and other refreshments are served in the Green area!

A framework for secure migration processes of legacy systems to the cloud

Luis Márquez, David G. Rosado, Haralambos Mouratidis, Daniel Mellado, and Eduardo Fernández-Medina

Presenter: Luis Márquez; Discussant: Andreas Schilling

JUNE 08 12:30-

Lunch

14:00 Social Area

Lunch is served in the Lunch room

WISSE - Session 3 Chair: David G. Rosado Towards the Integration of Security transparency in the modelling and design of cloud based systems Moussa Ouedraogo and Shareeful Islam	JUNE 08 14:00– 15:30 L30
Presenter: Moussa Ouedraogo; Discussant: Stavros Simou	
Towards the development of a Cloud Forensics Methodology: A Conceptual Model Stavros Simou, Christos Kalloniatis, Haralambos Mouratidis and Stefanos Gritzalis	
Presenters: Stavros Simou, Christos Kalloniatis; Discussant: Moussa Ouedraogo	
Coffee, tea, and other refreshments are served in the Green area!	JUNE 08 15:30– 16:00 Social Area
WISSE - Session 4 Chair: Christos Kalloniatis An Experience Report on Scalable Implementation of DDoS Attack Detection Sri Yogesh Dorbala, Kishore. R and Neminath Hubballi	JUNE 08 16:00– 17:00 L30
Presenter: Neminath Hubballi; Discussant: Nicolas Mayer  Towards the ENTRI Framework: Security Risk Management enhanced by the use of Enterprise Architectures  Nicolas Mayer, Eric Grandry, Christophe Feltus, and Elio Goettelmann  Presenter: Nicolas Mayer; Discussant: Neminath Hubballi  Close of Workshop	
Workshop Dinner  Please see separate page in programme for more information.	JUNE 08 19:00- 23:00

JUNE 10 09:00- 09:30	Conference Opening
Aula JUNE 10 09:30– 10:45 Aula	Keynote 1 - Attaining a Systems Perspective Chair: Paul Johannesson Attaining a Systems Perspective Harold W. "Bud" Lawson
JUNE 10 10:45– 11:15 Social Area	Please see more details about the keynote in the Keynote section  Coffee  Coffee, tea, and other refreshments are served in the Green area!
JUNE 10 11:15– 12:45	Paper Session 1 - Social and Collaborative Computing Chair: Klaus Pohl Game Aspect: An Approach to Separation of Concerns in Crowdsourced Data Management
Aula	Shun Fukusumi, Atsuyuki Morishima, Hiroyuki Kitagawa Editing Anxiety in Corporate Wikis: From Private Drafting to Public Edits Cristobal Arellano, Oscar Diaz, Maider Azanza Run-time and Task-based Performance of Event Detection Techniques for Twitter Andreas Weiler, Michael Grossniklaus, Marc H. Scholl
JUNE 10 11:15– 12:45 Lilla Hörsalen	Paper Session 2 - Business Process Modeling and Languages Chair: Xavier Franch RALph: A Graphical Notation for Resource Assignments in Business Processes Cristina Cabanillas, David Knuplesch, Manuel Resinas, Manfred Reichert, Jan Mendling, Antonio Ruiz-Cortés Revising the Vocabulary of Business Process Element Labels Agnes Koschmider, Meike Ullrich, Antje Heine, Andreas Oberweis
	Declarative Process Modeling in BPMN Giuseppe De Giacomo, Marlon Dumas, Fabrizio Maria Maggi, Marco Montali
JUNE 10 11:15– 12:45	Tutorial 1 - Work System Theory: A Bridge between Business and IT Views of Systems Please see details in the Tutorials section and/or the web page. Steven Alter
L70	

Lunch	JUNE 10 12:45-
Lunch is served in the Lunch room	14:15 Social Area
CAiSE Forum - Emerging New Topics - Demo Presentations	JUNE 10
Presentations will take place in room L70, unless otherwise stated	12:45-
Specifying Business Requirements through Interaction Design	17:45
Roman Popp and Hermann Kaindl room G10:8 - 14:15 - 16:15	L50
RDB2OWL: A Language and Tool for Database to Ontology Mapping	

room G10:8 - 16:15 - 17:45

CoreEAF - a Model Driven Approach to Information Systems

Tomas Jonsson and Håkan Enquist

Kārlis Čerāns and Guntars Bumans

PRIVATEER: A Private Record Linkage Toolkit

Alexandros Karakasidis, Georgia Koloniari and Vassilios S. Verykios

Model-driven Method and a Tool for Developing Gesture-based Information System Interfaces

Otto Parra, Sergio España and Oscar Pastor

On Business Process Variants Generation

Asef Pourmasoumi, Mohsen Kahani, Ebrahim Bagheri and Mohsen Asadi

STS-Tool 3.0: Maintaining Security in Socio-Technical Systems

Mattia Salnitri, Elda Paja, Mauro Poggianella and Paolo Giorgini

Applying Idea Management System (IMS) approach to design and implement a collaborative environment in public service related open innovation processes

Mona Soufivand, Marco Alessi, Alessio Camillo, Valentina Chetta, Enza Giangreco and Davide Storelli

Community-based API Builder to manage APIs and their connections with Cloudbased Services

Romanos Tsouroplis, Michael Petychakis, Iosif Alvertis, Evmorfia Biliri and Dimitris Askounis

OBIS: Ontology-Based Information System Framework Kārlis Čerāns and Aiga Romane

#### CAiSE Forum - Emerging New Topics - Poster Presentations

Improving Design Patterns Finder Precision Using a Model Checking Approach Mario Luca Bernardi, Marta Cimitile, Giuseppe De Ruvo, Giuseppe A. Di Lucca and Antonella Santone

Early Validation of Control Software for Automation Plants on the Example of a Seawater Desalination Plant

Veronika Brandstetter, Andreas Froese, Bastian Tenbergen, Andreas Vogelsang, Jan Christoph Wehrstedt and Thorsten Weyer JUNE 10 12:45– 17:45 Green Area

JUNE 10 Usability Evaluation of Variability Modeling by means of Common Variability Lan12:4517:45 guage
Jorge Echeverria, Jaime Font, Carlos Cetina and Oscar Pastor

KPI-based Activity Planning for People Working in Flexible Processes

Combining Risk-Management and Computational Approaches for Trustworthiness Evaluation of Socio-Technical Systems

Nazila Gol Mohammadi, Torsten Bandyszak, Abigail Goldsteen, Costas Kalogiros, Thorsten Weyer, Micha Moffie, Bassem Nasser and Mike Surridge

Extending Software Development Methodologies to Support Trustworthiness-by-Design

Nazila Gol Mohammadi, Torsten Bandyszak, Sachar Paulus, Per Håkon Meland, Thorsten Weyer and Klaus Pohl

Toward Advanced Visualization Techniques for Conceptual Modeling Jens Gulden and Hajo Reijers

Maikel L. Van Eck, Natalia Sidorova and Wil M.P. Van Der Aalst

The Influence of Syntactic Quality of Enterprise Process Models on Model Comprehension

Merethe Heggset, John Krogstie and Harald Wesenberg

Patterns for Identifying and Structuring Features from Textual Descriptions: An Exploratory Study

Nili Itzik and Iris Reinhartz-Berger

Towards a Model of Context-Aware Recommender System Lauma Jokste

Towards Visually Monitoring Multiple Perspectives of Business Process Compliance David Knuplesch, Manfred Reichert and Akhil Kumar

A Framework for Occupational Fraud Detection by Social Network Analysis Lookman Sanni and Selmin Nurcan

Model-Driven Cross-Platform Apps: Towards Business Practicability Tim A. Majchrzak, Jan Ernsting and Herbert Kuchen

Context-Dependent App Testing

Tim A. Majchrzak and Matthias Schulte

An Approach to Conceptual Fit Analysis for COTS Selection Antoni Olivé

A User-Centric, Privacy-Aware Platform for new Business Models in a Data-Driven Era

Michael Petychakis, Iosif Alvertis, Romanos Tsouroplis, Evmorfia Biliri, Fenareti Lampathaki, Dimitris Askounis, Timotheos Kastrinogiannis, Andreas Daskalopoulos, Theodoros Michalareas, Eric Robson, Donal MacCarthy, Christine O'Meara, Lukasz Radziwonowicz and Robert Kleinfeld

Toward Better Mapping between Regulations and Operational Details of Enterprises Using Vocabularies and Semantic Similarity

Sagar Sunkle, Deepali Kholkar and Vinay Kulkarni

Gamifying Software Development Environments Using Cognitive Principles Naomi Unkelos-Shpigel and Irit Hadar Relational XES: Data Management for Process Mining Boudewijn F. van Dongen and Shiva Shabaninejad A Resource Oriented Architecture to Handle Data Volume Diversity Pierre De Vettor, Michael Mrissa, and Djamal Benslimane	JUNE 10 12:45– 17:45 Green Area
Paper Session 3 - High Volume and Complex Information Management Chair: Nicola Guarino The requirements and needs of global data usage in product lifecycle management Anni Siren, Kari Smolander, Mikko Jokela On the Acquisition of Probabilistic Keys for Managing Big Data Quality Pieta Brown, Sebastian Link A Clustering Approach for Protecting GIS Vector Data Ahmed Abubahia, Mihaela Cocea	JUNE 10 14:15– 15:45 Lilla Hörsalen
Paper Session 4 - Requirements Elicitation and Management Chair: Pericles Loucopoulos Need-to-share & non-diffusion requirements verification in exchange policies Rémi Delmas, Thomas Polacsek	JUNE 10 14:15– 15:45 Aula
Virtual Business Role-play: Leveraging Familiar Environments to Prime Stakeholder Memory during Process Elicitation  Joel Harman, Ross Brown, Daniel Johnson, Stefanie Rinderle-Ma, Udo Kannengiesser Handling Goal Model Families as Software Product Lines  Anthony Palmieri, Philippe Collet, Daniel Amyot	, with
Tutorial 2 - FEDS2: A Practical Tutorial on the Framework for Evaluation in Design Science Research (version 2)  John Venable	JUNE 10 14:15– 15:45
Please see details in the Tutorial section of the programme	L70
Coffee, tea, and other refreshments are served in the Green area!	JUNE 10 15:45– 16:15 Social Area

JUNE 10 16:15– 17:45 Lilla Hörsalen	Panel 1 - Topics in Information Systems Engineering Topics in Information Systems Engineering Chair: Barbara Pernici Hajo Reijers, Pnina Soffer. Arne Sølvberg, Roel Wieringa Please see details in the Panels section and/or the web page.
JUNE 10 16:15- 17:45	Tutorial 3 - Know-how Mapping with ME-map Arnon Sturm and Eriv Yu Please see details in the Tutorial section of the programme
L70	
JUNE 10 19:00-	Conference Welcome Reception
22:00	Please see the Conference reception section in the programme
JUNE 11 09:00- 10:15	Keynote 2 - The Age of Data & The New Era of Computing Chair: Jelena Zdravkovic The Age of Data & The New Era of Computing Aleksandra Mojsilović
Aula	Please see the Keynote section for more details about the talk
JUNE 11 10:15– 11:00 Social Area	Coffee and Networking  Coffee, tea, and other refreshments are served in the Green area!
JUNE 11 11:00- 12:30	Doctoral Consortium - Session 1: Introduction to the Doctoral Consortium Chair: Peri Loucopoulos Faculty mentors: Peri Loucopoulos, Roel Wieringa
L50	Introduction of a common framework for discussing the student presentations  Roel Wieringa
	Process Verification and Synthesis – The Use Case of Commissioning Processes in the Automobile Industry Richard Mrasek
JUNE 11 11:00- 12:30	Industrial Keynote - Big Success with Big Data Chair: John Krogstie Big Success with Big Data Nicholas Millman
Aula	Please see the Keynote section for details about the talk

Paper Session 5 - Model Conceptualisation and Evolution Chair: Jolita Ralyte Interactive recovery of requirements traceability links using user feedback and configuration management logs Ryosuke Tsuchiya, Hironori Washizaki, Yoshiaki Fukazawa, Keishi Oshima, Ryota Mibe Detecting Complex Changes During Metamodel Evolution Djamel-Eddine Khelladi, Regina Hebig, Reda Bendraou, Jacques Robin, Marie-Pierre Gervais "We need to discuss the Relationship": Re-visiting Relationships as Modeling Constructs Nicola Guarino, Giancarlo Guizzardi	JUNE 11 11:00– 12:30 Lilla Hörsalen
Tutorial 4 - Model Matching: Processes and Beyond Avigdor Gal and Matthias Weidlich Please see details in the Tutorial section of the programme	JUNE 11 11:00– 12:30
	L70
Lunch is served in the Lunch room	JUNE 11 12:30– 14:00 Social Area
Doctoral Consortium - Session 2: Knowledge intensive processes Chair: Selmin Nurcan Faculty mentors: Roel Wieringa, Eric Yu Supporting and assisting the execution of knowledge-intensive processes	JUNE 11 14:00– 15:30
Steven Mertens  Tactical management in focus: adaptability and information systems  Renata Petrevska Nechkoska  Situational Method Engineering in ERP implementation methodologies  Adnan Kraljić	
Industrial Panel - Digital Transformation and its Impact on Industry, Research and Society Digital Transformation and its Impact on Industry, Research and Society Chair: Vandana Kabilan Nicholas Millman, Aleksandra Mojsilović, Kabilan Seenivasagan, Elisabeth Stjernstoft Please see the Tutorials section and/or the web page for additional details	JUNE 11 14:00– 15:30 Lilla Hörsalen

JUNE 11 14:00– 15:30	Paper Session 6 - Enterprise Data Management Chair: Marko Bajec Managing Data Warehouse Traceability: A life-cycle driven approach
L50	Selma Khouri, Kamel Semassel, Ladjel Bellatreche
	Specification and Incremental Maintenance of Linked Data Mashup Views  Vania Vidal, Maco Antonio Casanova, Narciso Arruda, Mariano Roberval, Giseli  Lopes, Luiz Paes Leme, Chiara Renso  A Model-driven Approach to Enterprise Data Migration
	Raghavendra Reddy Yeddula, Prasenjit Das, Sreedhar Reddy
JUNE 11 14:00– 15:30	Paper Session 7 - Process Mining, Monitoring and Predicting Chair: Johann Eder
	PM2: a Process Mining Project Methodology Maikel L. vanEck, Xixi Lu, Sander JJ Leemans, Wil M.P. van derAalst
L70	Completing Workflow Traces using Action Languages Chiara Di Francescomarino, Chiara Ghidini, Sergio Tessaris, Itzel Vázquez Sandoval
	A Novel Top-down Approach For Clustering Traces <i>Yaguang Sun, Bernhard Bauer</i>
JUNE 11 15:30– 16:00 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 11	Doctoral Consortium - Session 3: More about data
16:00-	Chair: Selmin Nurcan
17:30	Faculty mentors: Pnina Soffer, Barbara Weber
L30	Data Reduction in Monitored Data  Xuesong Peng
	Enrichment of Business Process Management with External Data: Application to a Telecom Operator  Pierre-Aymeric Masse
	Integrating the Internet of Things with Business Process Management: A Process-aware Framework for Smart Objects <i>Giovanni Meroni</i>
JUNE 11 16:00– 17:30 Lilla Hörsalen	Panel 2 - Design Science in Information Systems Engineering Design Science in Information Systems Engineering Chair: Erik Perjons
	Steven Alter, Matti Rossi, Tuure Tuunanen, John Venable, and Roel Wieringa
	Please see details in the Panels section and/or the web page.

Industrial Paper Session 1 - Applications in industry and smart cities  Chair: John Krogstie  A Multi-Agent Framework for a Hadoop Based Air Quality Decision Support System  Abdelaziz El Fazziki, Abderrahmane Sadiq, Jamal Ouarzazi and Mohamed Sadgal  P2PIE: A new enterprise application integration solution	JUNE 11 16:00– 17:30 L50
Jörgen Hanson, Jens Ohlsson, Nevzat Ertan, Paul Johannesson, Stefan Wernmo, Ole Schjødt-Osmo, Shengnan Han and Tomas Hedlund Holistic Design for Continuous Innovation and Sustainable Knowledge bases Frank Lillehagen and Sobah A. Petersen	
Industrial Paper Session 2 - Health applications Chair: Gustaf Juell-Skielse HEALTH BANK – A Workbench for Data Science Applications in Healthcare Hercules Dalianis, Aron Henriksson, Maria Kvist, Sumithra Velupillai and Rebecka Weegar	JUNE 11 16:00– 17:30 DL40
Lessons from a Hospital Business Intelligence Implementation  Thodoros Topaloglou and Daniele Barone  Exploration of known and unknown early symptoms of cervical cancer and development of a symptom spectrum - Outline of a data and text mining based approach  Claudia Ehrentraut, Hercules Dalianis and Karin Sundström	
Paper Session 8 - Intra- & Inter-organizational Process Engineering Chair: Hajo Reijers Extracting Decision Logic from Process Models Kimon Batoulis, Andreas Meyer, Ekaterina Bazhenova, Gero Decker, Mathias Weske Equivalence Transformations for the Design of Interorganizational Data-Flow	JUNE 11 16:00– 17:30 L70
Julius Köpke, Johann Eder Automatic Generation of Optimized Process Models from Declarative Specifications Richard Mrasek, Jutta Mülle, Klemens Böhm	
Conference Dinner  Please see the Conference dinner section in the programme	JUNE 11 19:00– 23:00
Keynote 3 - From Opinions to Facts: Building Products Customers Actually Use Chair: Marite Kirikova From Opinions to Facts: Building Products Customers Actually Use Jan Bosch	JUNE 12 09:30– 10:45
Please see the Keynote section for details about the talk	Aula

JUNE 12	Coffee
10:45– 11:15 Social Area	Coffee, tea, and other refreshments are served in the Green area!
JUNE 12 11:15– 12:45	Invited Talk: Design Science Methodology for Information Systems and Software Systems Engineering Design Science Methodology for Information Systems and Software Systems Engineering
L70	Roel Wieringa
	Please see the Keynote section for more details about Roel and about the talk
JUNE 12 11:15-	Paper Session 9 - Process Compliance and Alignment Chair: Anne Persson
12:45	Towards the Automated Annotation of Process Models
Lilla Hörsalen	Henrik Leopold, Christian Meilicke, Michael Fellmann, Fabian Pittke, Heiner Stuckenschmidt, Jan Mendling
	Discovery and Validation of Queueing Networks in Scheduled Processes Arik Senderovich, Matthias Weidlich, Avigdor Gal, Avishai Mandelbaum, Sarah Kadish, Craig A.Bunnell
	Verification and Validation of UML Artifact-centric Business Process Models Montserrat Estanol, Maria-Ribera Sancho, Ernest Teniente
JUNE 12 11:15– 12:45	Tutorial 5 - Fundamental Systems Thinking Concepts for IS Engineering: Balancing between Change and Non-change <i>Gil Regev</i>
L50	Please see details in the Tutorial section of the programme
JUNE 12 12:45– 14:15 Social	Lunch is served in the Lunch room
Area JUNE 12	Doctoral Consortium - Session 4: Configuration
14:15-	Chair: Selmin Nurcan
15:45	Faculty mentors: Peri Loucopoulos, Oscar Pastor
L50	Towards a Framework for Feature Deduplication during Software Product Lines Evolution
	Amal Khtira
	Time-Aware Service Selection based on Pruning Techniques Ikbel Guidara
	Safe Management of Software Configuration  Markus Raab

Paper Session 10 - Enterprise IT Integration and Management Chair: Janis Stirna Empirical Challenges in the Implementation of IT Portfolio Management: A case study in companies Lucy Ellen Lwakatare, Pasi Kuvaja, Harri Haapasalo, Arto Tolonen	JUNE 12 14:15– 15:15 L70
Integration Adapter Modeling  Daniel Ritter, Manuel Holzleitner	
Paper Session 11 - Service Science and Computing Chair: Barbara Pernici Modelling Service Level Agreements for Business Process Outsourcing Services Adela Del-Rio-Ortega, Antonio Manuel Gutierrez, Amador Duran, Manuel Resinas, Antonio Ruiz-Cortes  Deriving Artefact-centric Interfaces for Overloaded Web Services Fuguo Wei, Alistair Barros, Chun Ouyang	JUNE 12 14:15– 15:15 Lilla Hörsalen
Closing Session Summary and wrap up of CAiSE'15. Presentation of CAiSE'16	JUNE 12 15:15– 15:45 Aula

#### Workshop dinner

The Workshop dinner will be arraged at restaurant Blå Porten. For almost 200 years, Blå Porten has been one of Stockholm's most renowned inns. On April 29, 1869, a strong wind spread a fire that burned the restaurant to the ground.

In 1916, the name Blå Porten was re-introduced to the garden island Djurgården. It opened as a summer restaurant, adjacent to the newly built Liljevalch's Gallery, and with an outdoor terrace in a walled, Italian-inspired garden. To reconnect with its past a navy blue entrance was tiled in the wall. The Blue Gate was once again one of the city's most popular restaurants.



Short travel directions: take the metro to end of line station Kungsträdgården. It's some hundred meters between the Kungsträdgården metro station and the tram/bus stop with the same name. Take tram 7 or bus 69 to station Gröna Lund. The restaurant is just across the street from the stop. Both the bus and the tram will take about 15 minutes. You will need two SL-tickets for a return trip to the venue and those can be collected at the registration desk.

Travel directions can be found here: http://goo.gl/nOLKA7. There is a map with detailed directions in the conference bag.





#### Conference reception

The City of Stockholm is hosting the reception for CAiSE'15 at the Stockholm City Hall (Stadshuset), the annual venue of the Nobel prize banquet since 1930. The Stockholm City Hall is situated on the island Kungsholmen in the center of Stockholm. It is one of the foremost tourist attractions in Stockholm; please visit http://international.stockholm.se/the-city-hall/ for more information.





The City Hall is just a short walk away from the central station. We recommend that you walk from the metro station Rådhuset instead. It's a nicer experience. A map with directions is in the conference bag. The short

version of the directions is this: get on the metro in Kista and get off at Rådhuset. When you exited the station walk in a southern direction until you reach the lake. You should now see the City Hall so follow the water's edge to it. Enter City Hall through the court yard entrance. The complete stroll should take at most 15 minutes. You will need two SL-tickets for a return trip and those, together with the required City hall ticket are collected at the registration desk.



The CAiSE'15 conference reception is hosted by Stockholms Stad (the City of Stockholm).

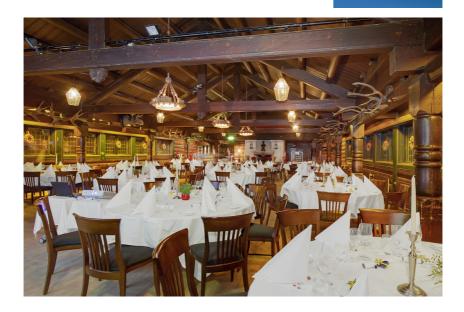
#### Conference dinner

The conference dinner will be arranged at Högloftet. Opened in 1905, Högloftet ("the High Loft") was designed by architect Karl Güettler in a romantic rustic architecture wave that reflected an enhanced national romanticism. Two stories tall, and highlighted with a traditional Swedish ceiling, Högloftet offers a glimpse into the Sweden of a bygone era. It is situated within the open-air museum Skansen which shows traditional village life, including original churches, houses, and shops, gathered from all over the country and lovingly reassembled in the capital for all to see and to remember.

Short travel directions: take the metro to end of line station Kungsträdgården. It's some hundred meters between the Kungsträdgården metro station and the tram/bus stop with the same name. Take tram 7 or bus 69 to station Skansen. Both the bus and the tram will take about 15 minutes. You will need two SL-tickets for a return trip to the venue and those can be collected at the registration desk.

RESTAURANGER

A map with detailed directions is in the conference bag.



#### Getting online

#### **Internet Access**

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#### To use Eduroam

- Connect your WiFi-device to the Eduroam network
- If asked, enter your usual Eduroam access credentials

#### To use the IT Access Card:

- Connect your WiFi-device to the SU network
- Once connected, choose IT Access Card in the window that will appear
- Enter the access credentials found on the back of the IT Access Card
- Now you are connected.

The card grants access throughout the duration of the conference.



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