



INVITED SESSION SUMMARY

Title of Session:

Digital Architecture and Decision Management

Name, Title and Affiliation of Chair:

Alfred Zimmermann, Reutlingen University, Germany

Rainer Schmidt, Munich University, Germany

Details of Session (including aim and scope):

We are delighted to invite contributions to the Invited Session - Digital Architecture and Decision Management - within the 9th International Conference on Intelligent Decision Technologies, which is co-located under the KES Smart Digital Futures 2017 umbrella. Digitization profoundly changes our society and economy and thus the way we live, work, learn, communicate, and collaborate. The interaction of digitally integrated customers, products and services provides new ways of value creation. Digitization is the creation of digital architecture and the use of decision management for enabling innovative business models and transforming existing business models and processes. The session – Digital Architecture and Decision Management – covers fundamental and practical aspects to support the digital transformation of products, services and processes. This disruptive change interacts with all information processes and systems, which are important business enablers for digitization since years. Digital architectures enable the intense interaction with customers and products. The customer is closely integrated with business processes and interacts like a co-worker by using implicit touch points, which are provided by mobility and wearable systems and the Internet of Things. The data collected by these interactions allow to automate decisions impacting the customer. Digitized products and services have dynamically extendable capabilities by accessing external services. Using them they are able to autonomously make decisions hitherto reserved to human beings. Decision Management considers decisions as first-class citizens in management equal to service and processes. It supervises and controls the identification, development, deployment, operation and optimization of decisions and their components. Decision components may be data sources, decision models and decision foundation. By handling decisions separately from processes and services, decision management takes into account that decisions, processes and services evolve at different speeds. Furthermore, decision management increases reuse and consistency of decisions by enabling centralized repositories that provide decisions to services and processes. Our aim is to provide a platform for researchers and practitioners to discuss both technological and business aspects of the digital transformation and to have a deep look into the flexible digital architecture and decision management mechanisms in the context of technologies, platforms, services, and applications, fostering customer experience and both disruptive transformation methods and continuous improvement models.

Session's Topics

Digital Architecture

- Digitization of Products, Services, Processes, Systems, and Enterprises
- Dynamic Capabilities and Digital Enterprise Models
- Digital Strategy, Governance, and Management
- Security in Digital Architectures
- Architectural Patterns for Digitization and Intelligence Analytics
- Customer Experience and Interaction Design
- Self-optimizing and Resilient Adaptive Systems
- Adaptive Software Architectures
- Runtime Monitoring of Operation Data
- Digital Platforms and Ecosystems
- Digitization Technologies: Integrating Internet of Things, Microservices, REST Services, Services & Cloud Computing, Big Data & Analytics, Social Media, etc.

Decision Management

- Advanced Analytics and Decision Support for Digital Enterprises
- Cognitive Models for Decision Support
- Identification and Development of Decisions and Decision Components
- Artificial Intelligence Problem Solving for Digitalization
- Knowledge Representation, Machine Learning, and Inference
- Deployment and Operation of Decisions
- Digital Visualization, Interaction, and Augmented Reality
- User Roles and Human-centred Problem Solving and Learning
- Multi-perspective Architectural Viewpoints, Methods, and Environments
- Decision Support Processes and Architectural Frameworks
- Decision Optimisation Digital Applications: Digitized Cars, Smart Finance, Smart City, Smart Home, Smart Medicine, Smart Energy, Industry 4.0, 3-D Printing and Production Environments, etc.

Main Contributing Researchers / Research Centres

Witold Abramowicz – Poznan University of Economics and Business, Poland
Stefan Aier – University St Gallen, Switzerland
Rainer Alt – University of Leipzig, Germany
Colin Atkinson – University of Mannheim, Germany
Oliver Bossert – McKinsey & Company, Frankfurt, Germany
Lars Brehm – Munich University, Germany
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Michael Fellmann – University of Rostock, Germany
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Call for Papers:

<http://idt-17.kesinternational.org/cms/userfiles/is04.pdf>

Submission Page:

<http://idt-17.kesinternational.org/submission.php>

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