

Preface of the EMISA Workshop 2020

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The special interest group „Enterprise Modeling and Information Systems Architecture“ (SIG EMISA)⁴ of the German Informatics Society (GI) regularly provides a forum for researchers from various disciplines who develop and apply methods to support the analysis and design of information systems, namely the EMISA workshops and conferences.

The EMISA 2020 workshop is the 10th in this series, which emphasizes a holistic view on this field, fostering integrated approaches that address and relate business processes, business people and information technology.

The leading topic for the EMISA 2020 workshop was the Internet-of-Things (IoT) and related technologies, methods and models. The rise of IoT is changing the way how models are captured and requires new design methods for information systems. In the past, (conceptual) models have been discovered from documents or interviews. IoT creates the need to automatically discover models from raw sensor events.

EMISA 2020 was searching for three types of contributions: *PhD research proposals*, *current research talk proposals* and *novel direction talk proposals*. As the main focus of the workshop was on discussions, we received several talk proposals, whereas current research talk proposals are not part of this proceedings.

This proceedings includes 6 peer-reviewed papers (5 novel direction talk proposals and 1 PhD research proposal) discussing enterprise architecture debts, human behavior, goals and model-driven software engineering for assistive systems, an approach for the development of domain-specific modeling languages including simulations based on Petri Nets, intelligent personal task and time management, a framework for process discovery from sensor data as well as requirements and effects on companies and employees of idea management systems in small and medium-sized enterprises.

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⁴ <http://www.emisa.org/>

Moreover, the EMISA Workshop 2020 accepted 10 current research talk proposals for already published scientific work which will be published in the EMISA member magazine „EMISA Forum“, namely:

- *Drivers and Barriers for Microservice Adoption (Extended Abstract)* by Holger Knoche and Wilhelm Hasselbring
- *A Case-Study to Teach Process-Aware Information Systems (Extended Abstract)* by Carlo Simon and Stefan Haag
- *The Diverse Ends-in-View of Research on Business Processes and Organizational Routines (Extended Abstract)* by Jan Mendling, Nicholas Berente, Stefan Seidel and Thomas Grisold
- *Business process representation and performance of different task types (Extended Abstract)* by Hamzah Ritchi, Mieke Jans, Jan Mendling and Hajo A. Reijers
- *Quantifying the Re-identification Risk of Event Logs for Process Mining (Extended Abstract)* by Saskia Nuñez von Voigt, Stephan Fahrenkrog-Petersen, Dominik Janssen, Agnes Koschmider, Florian Tschorsch, Felix Mannhardt, Olaf Landsiedel and Matthias Weidlich
- *Estimating Process Conformance by Trace Sampling and Result Approximation (Extended Abstract)* by Martin Bauer, Han van der Aa and Matthias Weidlich
- *Monotone Precision and Recall Measures for Comparing Executions and Specifications of Dynamic Systems (Extended Abstract)* by Artem Polyvyanyy, Andreas Solti, Matthias Weidlich, Claudio Di Ciccio and Jan Mendling
- *Towards Privacy-Preserving IoT Systems Using Model Driven Engineering (Extended Abstract)* by Judith Michael, Lukas Netz, Bernhard Rumpe and Simon Varga
- *Research Challenges for the Modelling of the Resource and Organizational View (Extended Abstract)* by Ralf Laue and Thomas Bauer
- *Conceptual Modelling and Artificial Intelligence - Overview and research challenges from the perspective of predictive business process management (Extended Abstract)* by Peter Fettke

EMISA 2020 was planned for May, 14-15 in Kiel, Germany. Due to COVID-19, it was not possible to arrange the presentations in personal. The EMISA members considered it as important to meet each other personally. Thus, we have decided to postpone the EMISA 2020 presentations for one year to May 2021 and will discuss the papers of EMISA 2020 at EMISA 2021 taking place in Kiel.

Kiel and Aachen, May 2020

Agnes Koschmider, Judith Michael and Bernhard Thalheim
EMISA 2020 Chairs

Program Committee

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- Andrea Burattin, Technical University of Denmark
- Jörg Desel, University of Hagen
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- Michael Fellmann, Rostock University
- Peter Fettke, Saarland University
- Hans-Georg Fill, Université de Fribourg
- Thomas Hildebrandt, University of Copenhagen
- Horst Kremers, CODATA-Germany
- Ralf Laue, University of Applied Sciences Zwickau
- Henrik Leopold, Kühne University & Hasso Plattner Institute
- Heinrich C. Mayr, Alpen-Adria-Universität Klagenfurt
- Jan Mendling, Vienna University of Economics and Business
- Daniel Moldt, University of Hamburg
- Markus Nüttgens, University of Hamburg
- Andreas Oberweis, Karlsruhe Institute of Technology (KIT)
- Hansjuergen Paul, Institute for Work and Technology
- Manfred Reichert, University of Ulm
- Ulrich Reimer, University of Applied Sciences St. Gallen
- Stefanie Rinderle-Ma, University of Vienna
- Stefan Strecker, University of Hagen
- Gottfried Vossen, University Münster
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- Mathias Weske, Hasso Plattner Institute, University of Potsdam

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Series Publications

Please find the publication of the EMISA workshops and conferences at

- 2019 as LNI proceeding P-304 celebrating 40 years SIG EMISA with a conference in Tutzing, Germany ⁵
- 2018 in Rostock, Germany as CEUR-WS.org Vol-2097 ⁶
- 2017 in Vienna, Austria as CEUR-WS.org Vol-1859 ⁷
- 2004-2007 and 2009-2015 in the LNI series ⁸

⁵ https://dl.gi.de/handle/20.500.12116/33118/browse?type=title&sort_by=4

⁶ <http://ceur-ws.org/Vol-2097/>

⁷ <http://ceur-ws.org/Vol-1859/>

⁸ <https://dl.gi.de/handle/20.500.12116/21074>

EMISA Journal (EMISAJ)

The journal „Enterprise Modelling and Information Systems Architectures – International Journal of Conceptual Modeling“ is a scholarly peer-reviewed open access journal with a unique focus on novel and innovative conceptual modelling and enterprise modelling research and its applications.

EMISAJ publishes thoughtful, well-developed articles on all facets of analyzing, designing, investigating, evaluating and applying conceptual models, enterprise models, enterprise and information systems architectures, corresponding modeling languages and modeling methods, and is open to submissions from all scientific disciplines and research fields. The editorial board imposes no restrictions regarding the research paradigm or research method, encourages multidisciplinary research contributions, and welcomes submissions from for-profit, nonprofit and government organizations.

The journal will address (but will not limit itself to) the following specific areas:

- General Purpose and Domain-Specific Modeling Languages
- Modeling Methods, Metamodeling, Method Engineering
- Enterprise Architectures, Information Systems Architectures
- Ontologies and Reference Models
- Analysis Patterns, Design Patterns, Architectural Patterns
- Analysis of Conceptual Models and Modeling Languages
- Evaluation and Quality of Conceptual Models, Architectures, and Languages
- Model-Driven Development, Models@run-time, Executable Models
- Business Process Management
- Enterprise Architecture Management
- Information Systems Design and Design Methods
- Information Systems Development Methods and Tools
- Software Tools for Conceptual and Enterprise Modeling, Business Process Management and Enterprise Architecture Management
- Learning and Teaching Conceptual Modeling
- Applications of Conceptual Modeling in Organizations
- Innovative Approaches to Conceptual Modeling

EMISAJ is a publisher-independent journal, and is published by the German Informatics Society (GI) and is a publication of its SIG on Modeling Business Information Systems (SIG MoBIS) and its SIG on Design Methods for Information Systems (SIG EMISA).

The editorial board invites submissions of these types: Original Research Contribution, Research Note, Industry/Experience Report, Report on Tool and Tool Application, and Reply to a Published Article.

<https://emisa-journal.org>