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The Practice of Enterprise Modeling

14th IFIP WG 8.1 Working Conference, PoEM 2021
Riga, Latvia, November 24–26, 2021
Proceedings

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Preface

The 14th IFIP WG 8.1 Working Conference on the Practice of Enterprise Modeling (PoEM 2021) was aimed at improving the understanding of the practice of enterprise modeling and architecture. PoEM offers a forum for sharing experiences and knowledge between the academic community and practitioners from industry and the public sector.

This year, the theme of the conference was the use of enterprise modeling and enterprise architecture towards ensuring sustainability and resilience of enterprises and societies. The theme is aligned to the increasing demand for businesses, services, and products to be more environmentally friendly and efficient, as well as to last longer and be more robust to unexpected changes. The field of enterprise modeling should seek to support these challenges by providing methods and tools, as well as investigating and reporting on the current state of the art in practice.

PoEM 2021 took place during November 24–26, 2021. It was organized by the Riga Technical University (RTU), Latvia, as a hybrid conference - partially at the newly enhanced Ķīpsala campus of RTU and partially online.

Following its tradition, PoEM 2021 was open for submissions in three categories that also form part of this proceedings: 1) research papers describing original research contributions in enterprise modeling; 2) practitioner/experience papers presenting problems, challenges, or experience related to any aspect of enterprise modeling encountered in practice; and 3) short papers presenting work in progress and emerging enterprise modeling challenges.

In total, we received 47 submissions for the main conference, including research papers, experience papers, and short papers. Based on three reviews by members of the Program Committee, we selected 14 full papers (a 30% acceptance rate) and six short papers (a 43% acceptance rate for full and short papers combined). Accepted papers are grouped by the following topics: enterprise modeling and enterprise architecture; methods and method engineering; business process modeling and management; requirements for privacy, security and governance; and case studies and experiences.

In addition to the main conference, PoEM 2021 featured three workshops: The 2nd Workshop on Blockchain and Enterprise Systems (BES 2021) organized by Andrea Morichetta and Petra Maria Asprion; The 1st Workshop on AI Native Enterprises organized by Vinay Kulkarni, Henderik Proper, Tony Clark, and Sreedhar Reddy; and The 1st Workshop on Enterprise Modeling for the Digital Transformation (EM4DT) organized by Samedi Heng and Saïd Assar. Also, a tutorial on "Hands-on Artefact-Centric Business Process Modelling with MERODE" was given by Monique Snoeck, and a PoEM Forum was organized by Balbir Bern and Kurt Sandkuhl.

PoEM 2021 also featured two keynotes, namely, "Software Sustainability: the Challenges and Opportunities for Enterprises and their Researchers" by Patricia Lago and "Design Science for Constructive Enterprise Modelling" by Paul Johannesson and Erik Perjons.

We thank the speakers for the keynotes and tutorial, as well as all the authors who submitted their work, and the Program Committee members who ensured a high-quality

selection of papers while providing insightful advice for improving the contributions. Moreover, we thank the organizers of workshops and the Forum for making PoEM 2021 such a diverse and active event. We also thank IFIP WG 8.1 for allowing this conference series to evolve under its auspices.

Last but not least, we would like to thank the organization team at RTU led by Zane Solovjakova, Krišjānis Pinka, Kristaps P. Rubulis, and Evita Roponena for their hard work in ensuring the success of this event.

October 2021

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Abstracts of Invited Keynote Talks

Software Sustainability: The Challenges and Opportunities for Enterprises and their Researchers

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Abstract. The need for sustainability is crucial for all aspects of society, as framed by the Sustainable Development Goals (SDGs) of the United Nations and increasingly prioritized by Governments and Global Organizations. Thanks to digital transformation, most enterprises in all sectors are facing incredible challenges to embrace sustainability as related to their software portfolios. Similarly, they struggle in identifying the opportunities that software sustainability can bring. This talk introduces the role of software for sustainability and related research. It also discusses some challenges and opportunities for modern enterprises in both research and practice, among which how to make sure the enterprise understands the necessity for sustainability. Examples from collaboration with various industries and sectors are used to illustrate the main takeaways.

Keywords: Sustainable development · Software sustainability · Enterprise sustainability

Design Science for Constructive Enterprise Modelling

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Abstract. Within design science, models are considered one of the most important kinds of contributions, if not the most important one. We will compare the notion of a model in design science with the view of models as it has emerged in the enterprise modelling practice. One issue is whether models in design science and enterprise modelling solely have a prescriptive function or whether they also can have descriptive and explanatory functions. This issue raises the question of the relationship between models in design and science. Another issue is how enterprise models today take a constructive role instead of a purely representative one, as reality is not only described but also constructed through models in digital systems. We will discuss how these issues can be addressed by distinguishing between real and imagined systems, models, model types, and model descriptions.

Keywords: Design Science · Enterprise modeling · Research methods

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