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Preface

The field of information and software systems development has resulted in a rich heritage of modeling methods and notations (e.g., ER, ORM, UML, ArchiMate, EPC, BPMN, DEMO). This canon of methods and notations continues to be enriched with extensions, refinements, and even new languages, to deal with new challenges. Even with some attempts to standardize, new modeling methods are constantly being introduced, especially in order to deal with emerging trends such as compliance and regulations, cloud computing, big data, business analytics, the Internet of Things, etc. These ongoing changes significantly impact the way information and software systems, enterprises, and business processes are being analyzed and designed in practice.

Evaluation of modeling methods contributes to the knowledge and understanding of their strengths and weaknesses. This knowledge may guide researchers toward the development of the next generation of modeling methods and help practitioners select the modeling methods most appropriate to their needs. A variety of empirical and non-empirical evaluation approaches can be found in the literature: feature comparison, meta-modeling, metrics, paradigmatic analyses, contingency identification, ontological evaluation, surveys, laboratory and field experiments, case studies, and action research. Yet, there is a paucity of such research in the literature.

The EMMSAD conference (Exploring Modeling Methods for Systems Analysis and Design) focuses on evaluating, as well as exploring and enhancing, modeling methods and techniques for the development of information and software systems, enterprises, and business processes. The objective of the EMMSAD conference series is to provide a forum for researchers and practitioners interested in evaluation and modeling methods for systems development to meet and exchange research ideas and results. It also provides the participants with an opportunity to present their research papers and experience reports, and to take part in open discussions. More details can be found at http://www.emmsad.org/.

This year EMMSAD celebrates its 22nd edition, in Essen Germany. We opened two new categories of short papers:

- EMMSAD-Next: reporting on research-in-progress, preliminary findings, or initiatives.
- EMMSAD-Practice: reporting on lessons learned from practice or collaborations with industry.

Four papers were accepted in those tracks and constitute EMMSAD-RADAR proceedings:

- 1. Architectural Intelligence: a Framework and Application to e-Learning
- 2. Towards Modeling Monitoring Services for Large-Scale Distributed Systems with Abstract State Machines
- 3. A Proposed Method in Agile Practices to Create Requirements Documentation and Test Cases
- 4. Combining Top-down and Bottom-up Enterprise Modelling

The proceedings further include the abstract of BPMDS/EMMSAD keynote, which was given by Heinrich C. Mayr, from Alpen-Adria-Universitt Klagenfurt, Austria. The title of the keynote was *Domain Specific Conceptual Model Engineering*.

We wish to thank the EMMSAD 2017 RADAR authors for having shared their work with us, as well as the members of the EMMSAD 2017 Program Committee for their valuable reviews. We also thank the organizers of CAiSE 2017 for their help with the organization of the event and IFIP WG8.1 for the support. We wish you pleasant and fruitful event.

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