

## Preface

Conceptual modeling emerged to describe the semantics of software applications at a high level of abstraction in terms of structure, behavior, and user interaction. If we look back on the software development history, the abstraction level has been continuously rising from the solution space to the problem space. At the beginning, software systems were built in a low-level, machine understandable code. Then, new programming languages got progressively closer to the developer's cognitive models, with the objective of improving efficiency and understandability. Nowadays, the target of conceptual models for engineering software is still the same: enhancing the abstraction level to develop software more easily and efficiently. Furthermore, Conceptual Modeling is currently applied for a variety of other purposes, going beyond Software Engineering. Business Process Management, Enterprise Modeling and Data Science are some examples of application areas. In any case, models are required to be unambiguous and precisely defined and thus, they must have sound syntaxes and semantics. As a result of such specific properties, model to model and model to code transformations can be reachable automatically. This way, analysts can take advantage of the effort spent in building models, reducing the time to build other related models or to implement code.

The 38th International Conference on Conceptual Modeling (ER 2019), held in Salvador, Brazil, on November 4-7, 2019, is a reference in the area of conceptual modeling. This conference is a discussion forum that gathers researchers from universities and professionals from industry around the world. Since the first edition in 1979, the conference has been held at an interesting variety of locations, rotating in successive years among Europe, Asia, and the Americas, and attracting a diverse international community of scholars.

These proceedings gather the papers of the ER Forum and the Posters & Demos Session. The ER Forum is a platform for presenting and discussing novel research ideas, while the Posters & Demos Session focuses on visionary ideas, innovative research projects, software prototypes or full-fledged systems supporting Conceptual Modeling. In the ER Forum, we received 9 submissions, accepting 8 papers. In the Poster & Demos Session, we had 9 accepted papers out of 13 submissions. We aimed at having an inclusive acceptance rate for two reasons: on the one hand, motivating lively discussions and on the other, supporting the growth of the community around Conceptual Modeling.

The edition of these proceedings required the significant efforts of many people to make this event possible. We would like to thank all who contributed to ER Forum and Poster & Demos: PC members, reviewers, the ER 2019 general chair, the local organization and of course the authors of all submitted papers. It is now the time to enjoy the conference and to make it as fruitful and pleasant as possible! Welcome to Salvador.

November 2019

Jose Ignacio Panach  
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