Preface of ER Forum, Demo and Posters 2022

ER Forum, Demo and Posters 2022 was a co-satellite event of the 41st International Conference on Conceptual Modeling (ER 2022) whose overarching theme was conceptual modeling to support big data analytics and AI. In general, the ER conference series concerns a wide variety of themes such as foundations of conceptualisation, modeling and modeling methods, ontologies, data and object management, as well as advanced and cross-disciplinary applications and experiences with conceptual modeling. The ER Forum, Demo, and Posters track is a vibrant platform for presenting and discussing novel research outcomes that address diverse topics related to conceptual modeling. In this track, innovation prevails over maturity, in particular regarding emerging new research topics. Thus, the main goal of the track is to facilitate the interaction, discussion and exchange of ideas among presenters and participants.

ER Forum, Demo and Posters 2022 accepted four types of submissions: forum papers (full and short), vision papers, tool demonstrations, and follow-up abstracts (new experiences of previously published research results).

We received 21 submissions, whereas 9 full research papers, 1 vision paper, and 3 tool demonstrations were accepted. During the peer-review process, each submission received three reviews by an international program committee, whose decisions were followed by an online discussion with one of the organizing chairs for reaching the final decisions.

ER 2022 was planned to be held in Hyderabad, India, on 17-20 October 2022. However, due to some relevant consequences of the COVID pandemic, the whole conference and satellite events were switched to a virtual format at the same dates.

The program of the event was organized as live presentations with rich discussion time, divided into two thematic sessions:

Session 1: Conceptual Modeling Vision and Frameworks

- 1. Conceptual Modeling Systems: A Vision for the Future of Conceptual Modeling by Roman Lukyanenko, Binny Samuel, Veda Storey and Arnon Sturm
- 2. Extending a Work System Metamodel Using a Knowledge Graph to Support IS Visualization and Development by Steven Alter
- 3. TASC4RE: A data-driven context model to support the elicitation of context-aware functionalities by Rodrigo Falcão, Maria Clara Pestana and Vaninha Vieira
- 4. Query-based Schema Evolution Recommendations for Hybrid Polystores by Pol Benats, Loup Meurice, Maxime Gobert and Anthony Cleve
- 5. Object Event Modeling for DES and IS Engineering by Gerd Wagner
- 6. A Conceptual Model for the Construction and Maintenance of Institutional Reality by Paul Johannesson and Maria Bergholtz

Session 2: Foundations and Tools

7. Data Consistency as a Criterion for Process Choreography Design by Tom Lichtenstein and Mathias Weske

- 8. Resolving Conflicts in Process Models with Temporal Constraints by Josef Lubas, Marco Franceschetti and Johann Eder
- 9. SemantifyingBPMN: A tool to generate BPMN models using DEMO by Sérgio Guerreiro and Pedro Sousa
- 10. TOOL—A modeling tool and modeling observatory: An update on research and prototype development by Stefan Strecker, Benjamin Ternes and Sven Christ
- 11. The bigER Modeling Tool by Philipp-Lorenz Glaser, Georg Hammerschmied, Vladyslav Hnatiuk and Dominik Bork
- 12. FORT: a minimal Foundational Ontological Relations Theory for Conceptual modeling tasks by Fatme Danash and Danielle Ziebelin
- 13. Ontologically Parsing Semi-structured Text with Unknown Grammars by David W. Embley, Stephen W. Liddle, Deryle W. Lonsdale, Gary J. Norris and Scott N. Woodfield

Our great thanks and appreciation go to the authors who dedicated their ideas and time to aggregate their novel research and submit the papers for consideration to the publication on this event. We would also like to thank the program committee members for their valuable reviews and discussions about the submissions. Finally, we would like to thank the organizing committee of ER 2022 for their great and continuous support and cooperation, in particular Manfred Jeusfeld, Kamalakar Karlapalem and Jolita Ralyté.

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