



Guest editorial for EMMSAD'2018 special section

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The exploring modeling methods for systems analysis and development (EMMSAD) series has produced 23 events, associated with conference on advanced information systems engineering (CAiSE), from 1996 to 2018. From 2009, EMMSAD has become a two-day working conference. The topics addressed by the EMMSAD series focus on modeling methods for software and information systems development [4], enterprise management [3], and business process management [1]. It further refers to evaluation of modeling methods through a variety of empirical and non-empirical approaches (a review and comparative analysis of such evaluation techniques can be found at [6]). The aims, topics, and history of EMMSAD can be found on the Website at <http://www.emmsad.org/>.

1 Scope

This special section follows the 23rd edition of the EMMSAD series, organized in conjunction with CAiSE'18 at Tallinn, Estonia, June 2018. The program of this edition was co-organized with two CAiSE workshops: the 6th international workshop on cognitive aspects of information systems engineering (COGNISE)¹ and the 5th workshop on advances in services design based on the notion of capability (Asdenca).² COGNISE workshop seeks a better understanding of the cognitive processes and challenges that practitioners experience, when performing information systems engineering activities, and enhanced development supporting tools and educational programs that better fit natural cognition [5]. Asdenca workshop concentrates on solving information systems engineering problems on the basis of a capability-driven approach [2, 7]. Although having

different focuses, the three events share common interests on modeling, development, organizations, and more. Hence, the conjunct event was named EMMSAD++ and had a rich program with two invited talks, two panels, and 14 research papers (two of which were short) organized in four sessions.

2 The papers selected for this special section

This special section presents five papers. Four of them are extended versions of papers included in EMMSAD++'2018 program, while one is an extended version of a paper accepted to EMMSAD'2017. All papers went a rigid review process of two to three rounds. Below is the list of papers:

1. Haralambos Mouratidis, Shaun Shei, and Aidan Delaney. “A security requirements modelling language for cloud computing environments”—submitted to EMMSAD'2017 and presents a cloud-enhanced modeling language for capturing and describing cloud computing environments.
2. Noa Roy-Hubara and Arnon Sturm. “Design methods for the new database era: a systematic literature review”—submitted to EMMSAD'2018 and systematically reviews methods for designing new database solutions and technologies.
3. Sybren De Kinderen and Monika Kaczmarek-Heß. “On model-based analysis of organizational structures—an assessment of current modeling approaches and application of multi-level modeling in support of design and analysis of organizational structures”—submitted to EMMSAD'2018 and suggests multi-level modeling and integrated modeling and programming as a way to support organizational structure modeling and analysis.
4. Constantina Ioannou, Indira Nurdiani, Andrea Burattin, and Barbara Weber. “Mining reading patterns from eye-tracking data: method and demonstration”—submitted

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¹ <https://sites.google.com/edu.haifa.ac.il/cognise-2018/home>.

² <https://asdenca2018.blogs.dsv.su.se/>.

to COGNISE'2018 and introduces a method for analyzing eye-tracking data using process mining in order to find distinct reading patterns of how developers interact with different software artifacts.

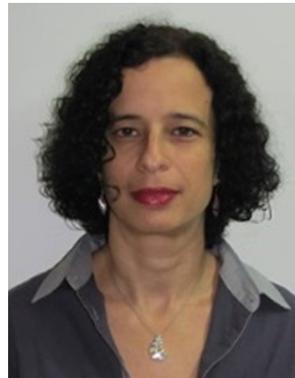
5. Jānis Kampars, Jelena Zdravkovic, Janis Stirna, and Jānis Grabis. “*Extending organizational capabilities with Open Data to support sustainable and dynamic business ecosystems*”—submitted to Asdenca'2018 and deals with how organizations are able to improve their business capabilities by taking advantage of open data initiatives.

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