Preface

The workshops of the symposium Software Technologies: Applications and Foundations (STAF 2023) were held during 18-21 July 2023, in Leicester (UK).

These post-proceedings bring together the collective insights and contributions from three distinguished workshops held during STAF 2023, all with a central focus on Model-Driven Engineering (MDE). The Agile MDE workshop explored the convergence of agile methodologies and MDE, fostering discussions on challenges, solutions, and the future of agile MDE. The 3rd International Workshop on MDE for Smart IoT Systems (MeSS 2023) delved into the fusion of MDE with the thriving Internet of Things (IoT) domain, addressing issues of system heterogeneity, scalability, and adaptation through MDE techniques. Lastly, the 15th Transformation Tool Contest (TTC) assessed model transformation tools, spanning diverse application domains, all within the context of advancing MDE tool capabilities and integration. These proceedings provide valuable insights into the multifaceted world of MDE research and practice.

All articles published in these post-proceedings have been peer-reviewed.

We extend our heartfelt gratitude to all authors, participants, organizing committees, program committees, and steering committees for their valuable contributions in making these workshops a resounding success.

Agile MDE 2023

The Agile MDE workshop served as a vibrant forum for the presentation and discussion of state-of-the-art work in agile Model-Driven Engineering (MDE). Agile methods and MDE, once seemingly opposed, have found common ground in addressing the dynamic and evolving nature of modern software systems. This workshop aimed to enable the exchange of ideas, identify successful approaches, and foster the growth of the research/practitioner community in the field.

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3rd International Workshop on MDE for Smart IoT Systems (MeSS 2023)

The MeSS 2023 workshop focused on the intersection of Model-Driven Engineering (MDE) and the Internet of Things (IoT) domain. With IoT's rapid growth, the workshop aimed to discuss how MDE techniques could be applied to design, deploy, and operate smart IoT systems. It also explored the challenges of applying modeling techniques in the IoT context and fostered collaborations between MDE and IoT communities.

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15th Transformation Tool Contest

The aim of the Transformation Tool Contest (TTC) series is to compare the expressiveness, the usability, and the performance of transformation tools along a number of selected case studies. A deeper understanding of the relative merits of different tool features will help to further improve transformation tools and to indicate open problems.

In order to facilitate the comparison of transformation tools, our steering committee selected four challenging cases via single blind reviews for which there were together nine solutions. The cases involved:

- Program abstraction by transformation: Abstraction of Visual Basic to UML.

- Asymmetric and Directed Bidirectional Transformation for Container Orchestrations.

- The TTC 2023 KMEHR to FHIR case.

- Incremental MTL vs. GPLs: Class into Relational Database Schema.

These proceedings comprise descriptions of these case studies and of all of the accepted solutions. In addition to the solution descriptions contained in these proceedings, the implementation of each solution (tool, project files, documentation) is made available in public version control repositories.

All cases were reviewed by the steering committee, judging the significance of the problem statement, and appropriateness of the evaluation methodology. TTC 2023 involved open (i.e., non anonymous) peer reviews for case solutions in a first round. The purpose of this round of reviews was for the participants to gain as much insight into the competitors' solutions as possible and also to identify potential problems. At the workshop, the solutions were presented. The expert audience judged the solutions along a number of case-specific categories, and prizes were awarded to the highest scoring solutions in each category. Finally, the conceptual contribution of each solution was written in a paper taking into account the insights gained at the workshop. The articles appearing in these post-proceedings were selected by our programme committee via single blind reviews and each paper was reviewed by two to three members of the programme committee. The full results of the contest are published on our website[1].

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[1]https://www.transformation-tool-contest.eu/

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