

Preface of MeSS 2022

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The next generation IoT systems needs to perform distributed processing and coordinated behavior across IoT, edge and cloud infrastructures. Smart IoT Systems have the potential to flourish innovations in many application domains. For instance, the typical components of a smart city include infrastructure, transportation, intelligent energy consumption, health-care, and technology. These ingredients are what make the cities smart, efficient and optimized respect to the citizen and administration needs. The Internet of Things is an emerging paradigms that can contribute to make smart cities efficient and responsive.

On the one hand, Model-driven engineering (MDE) techniques can support the design, deployment, and operation of smart IoT systems. For instance, to manage abstractions in IoT systems definition and to provide means to automate some of the development and operation activities of IoT systems, e.g., domain specific modeling languages can provide a way to represent different aspects of systems leveraging a heterogeneous software and hardware IoT infrastructure and to generate part of the software to be deployed on it. On the other hand, the application of modeling techniques in the IoT poses new challenges for the MDE community.

Due to its cross-domain nature, this topic has a high potential for synergies (i) within the MDE community – model evolution, models@run.time, model transformations, multi-paradigm modeling and model validation for examples, and (ii) across the MDE and IoT communities. The International Workshop on MDE for Smart IoT Systems (MeSS) is one of the most accurate venues to offer researchers a dedicated forum to discuss fundamental as well as applied research that attempts to exploit model-driven techniques in the IoT domain. The program of this sixth edition (counting also the precursor workshop MDE4IoT) consisted of the 7 accepted extended abstract presentation. All the abstracts submitted to the workshop underwent through a peer-reviewing process and all the accepted abstracts will be invited for a special issue on JOT - The Journal of Object Technology. The workshop has been held as full day event of the Software Technologies: Applications and Foundations (STAF) conference on the July 5th, 2022.

We would like to thank the STAF 2022 organization for giving us the opportunity to organize this workshop, especially to the workshop chairs Catherine Dubois (Ecole Nationale Supérieure d'Informatique pour l'Industrie et l'Entreprise, France) and Julien Cohen (Université de Nantes,

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France), who were always very helpful and supportive. Many thanks to all those that submitted papers, and particularly to the presenters of the accepted papers. Last but not least, our thanks go to the reviewers and the members of the Program Committee, for their timely and accurate reviews and for their help in choosing and suggestions for improving the selected papers.

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