

Preface

By 2020, Gartner envisions that 21 billion Internet-of-Things (IoT) endpoints will be in use, representing great business opportunities. However, complex challenges remain to be solved to efficiently exploit the full potential of the rapidly growing IoT infrastructure. In particular, the next generation IoT systems need to perform distributed processing and coordinated behavior across IoT, edge and cloud infrastructures, manage the closed loop from sensing to actuation, and cope with vast heterogeneity, scalability and dynamicity of IoT systems and their environments.

On the one hand, Model-driven engineering (MDE) techniques can support the design, deployment, and operation of 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.

The International Workshop on Model-Driven Engineering for the Internet of Things (MDE4IoT) 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. This second edition has been held as a full-day event of the ACM/IEEE 21th International Conference on Model Driven Engineering Languages and Systems (MODELS) on the October 9th, 2018 in Copenhagen, Denmark. Six contributions were accepted after a rigorous review process, addressing several challenges such as validation and verification of IoT applications and dedicated modeling language support for IoT. The workshop's program consisted of the accepted papers presentation, two keynotes given by Øystein Haugen and by Franck Fleurey.

We would like to thank the MODELS 2018 organization for giving us the opportunity to organize this workshop, especially to the general chair of MODELS 2018 Andrzej Wsowski (IT University of Copenhagen, Denmark) and to the workshops chairs Regina Hebig (University of Gothenburg, Sweden) and Thorsten Berger (University of Gothenburg, Sweden), who were always very helpful and supportive. Many thanks to all those that submitted papers, and particularly to the presenters of the accepted papers. We also warmly thank Øystein Haugen and Franck Fleurey for providing very inspiring keynote talks and the many participants who contributed to the open discussions with their comments and experience. 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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