

Preface

Welcome to the proceedings of MMB and DFT 2016! We are very pleased to present this LNCS volume with its contributions on performance and dependability evaluation techniques for distributed and embedded systems, computer and software architectures, and communication networks.

This volume contains the papers that were presented at the 18th International GI/ITG Conference on Measurement, Modelling and Evaluation of Computing Systems and Dependability and Fault Tolerance (MMB and DFT 2016) held during April 4–6, 2016, in Münster, Germany.

Following a thorough review procedure with at least three reviews per submission and a careful selection process, the Program Committee of MMB and DFT 2016 compiled an interesting scientific program comprising 12 regular papers and three tool presentations.

Since the start of the biennial MMB conference series in the early 1980's, we have seen substantial changes in the field of performance evaluation, dependability, and fault-tolerance of computer and communication systems. This is, for example, reflected in the relatively large number of submissions that deal with a very interesting and highly relevant field of research, namely, smart grids. We believe that for this community, it is very important to address new and exciting applications and investigate how the knowledge that is available in our community can be applied to these.

Besides the main program, the conference hosted three satellite workshops covering related research topics:

- The 8th International Workshop on Practical Applications of Stochastic Modelling (PASM)
- The Third Workshop on Network Calculus (WoNeCa)
- The Workshop on E-mobility and Smart Grids: Challenges and Opportunities (E-mobility)

By hosting these workshop, we hope to foster interaction between strongly related communities.

We were very fortunate to include two very interesting and relevant keynote presentation in the conference program:

- “DDoS 3.0: How Terrorists Bring Down the Internet” by Prof. Dr. Ir. Aiko Pras, University of Twente, The Netherlands
- “From Transient Analysis to Probabilistic Model Checking of Markov Regenerative Processes” by Prof. Dr. Enrico Vicario, University of Florence, Italy

To enable cross-fertilization between the conference and the satellite workshops, we included two additional invited talks that covered the research areas of the satellite workshops and that fit, from our perspective, very well in the scope of the main conference:

- “Critical Machine-to-Machine Communications: Performance Models vs. Reality in the 10^{-10} Regime,” by Prof. Dr. James Gross, Royal Institute of Technology, Stockholm, Sweden
- “Open Analysis of Crowdsourced Car Sensor Data: The enviroCar Project,” by Dr. Christoph Stasch, 52 North, Münster, Germany

As conference chairs, we express our gratitude to all members of the Program Committee and all external reviewers for their dedicated service, maintaining the quality objectives of the conference, and for the timely provision of their valuable reviews.

We thank all the authors for their submissions, all the speakers for their lively presentations, and all the participants for their contributions to interesting discussions. We acknowledge the support of the EasyChair conference system and express our gratitude to its management team for their commitment to serve the scientific community. Further, we thank Springer for unceasing support and excellent management of the LNCS publishing process.

Finally, it is our hope that readers will find these MMB and DFT 2016 proceedings informative and useful for their future research on measurement, modelling, analysis, and performance evaluation of advanced computer and communication systems.

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Measurement, Modelling and Evaluation of Dependable
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