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Jan Mazal (Ed.)

Modelling and Simulation for Autonomous Systems

4th International Conference, MESAS 2017
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Revised Selected Papers

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Preface

This volume contains the full papers presented at the MESAS 2017 Conference: Modelling and Simulation for Autonomous Systems, held during October 24–26, 2017, in Rome. The initial idea to launch the MESAS project was introduced by the Concept Development and Experimentation Branch at the NATO Modelling and Simulation Centre of Excellence in 2013, namely, by LTCDR Alessandro Cignoni, who wanted to bring together the modelling and simulation and the autonomous systems communities and to collect new ideas for concept development and experimentation in this domain. From that time, the event gathers together — in keynote, regular, poster, and way-ahead sessions — fully recognized experts from different technical communities in the military, in academia, and in industry. The main topical parts of the 2017 edition of MESAS were “M&S of Intelligent Systems – AI, R&D, and Applications,” “Autonomous Systems in Context of Future Warfare and Security – Concepts, Applications, Standards, and Legislation,” and “Future Challenges and Opportunities of Advanced M&S Technology.” The community of interest submitted 38 papers for consideration. Each submission was reviewed by two Program Committee members or selected independent reviewers. The committee decided to accept 33 papers to be presented (in seven sessions) and these papers were also accepted to be included in the conference proceedings. The plenary session and way-ahead included an extra three invited presentations from distinguished experts.

October 2017

Jan Mazal

MESAS 2017 Logo



MESAS 2017 Organizer

NATO Modelling and Simulation Centre of Excellence (NATO M&S COE)

The NATO M&S COE is a recognized international military organization activated by the North Atlantic Council in 2012, and does not fall under the NATO Command Structure. Partnering nations provide funding and personnel for the centre through a memorandum of understanding. The Czech Republic, Italy, and the United States are the contributing nations, as of this publication. The NATO M&S COE supports NATO transformation by improving the networking of NATO and nationally owned M&S systems, promoting cooperation between nations and organizations through the sharing of M&S information, and serving as an international source of expertise.

The NATO M&S COE seeks to be a leading world-class organization, providing the best military expertise in modelling and simulation technology, methodologies, and the development of M&S professionals. Its state-of-the-art facilities can support a wide range of M&S activities including but not limited to: education and training of NATO M&S professionals on M&S concepts and technology with hands-on courses that expose students to the latest simulation software currently used across the alliance; concept development and experimentation using a wide array of software capability and network connections to test and evaluate military doctrinal concepts as well as new simulation interoperability verification; and the same network connectivity that enables the COE to become the focal point for NATO's future distributed simulation environment and services.



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