

MESAS 18

MODELLING & SIMULATION FOR AUTONOMOUS SYSTEMS CONFERENCE

17-19 OCTOBER 2018 PRAGUE

Modelling & Simulation for Autonomous Systems (Scientific Conference) 2018

Inter-domain and Multi-disciplinary exchange of
knowledge within Modelling & Simulation and
Robotics communities of interest

For enquiries about the conference contact the
Event Manager or visit the official website
<https://www.mscoe.org/event/mesas-2018>



TECHNICAL SPONSORS 2017 (Agreements for 2018 in process)



AIM

MESAS'18 is a three-day conference event gathering respected experts from Military, Academia, and Industry with the objective to foster the use of Modelling and Simulation Tools for the integration of Systems with Autonomous Capabilities (AxS) into Operations.

CALL FOR PAPERS

NATO M&S COE is proud to invite International Researchers and Technicians from Academic, Industrial and Military Centers to submit extended abstracts of innovative scientific research works. Submitted abstracts will be evaluated by the members of MESAS'18 Technical Committee (TC). Authors of accepted abstracts will be asked to prepare a full paper version by using LCNS Springer template and to present their work during the MESAS'18 Conference. Presentations will be ran in plenary and parallel sessions. Accepted full papers will be included in the Conference Proceedings, which are indexed in the ISI Conference Proceedings Citation Index - Science (CPCI-S) and in the EI Engineering Index (including Compendex and Inspec databases).

ADVANCED RESEARCH DIRECTIONS FOR DEFENSE AND CIVILIAN APPLICATIONS

Novel research and technological contributions or advancements are recommended. Overviews of ongoing research and approaches are also welcome.

ORGANIZER

The NATO M&S COE is a recognized international military organization activated by the North Atlantic Council in 2012 and is not under the NATO Command Structure. Partnering Nations provide funding and personnel for the Centre through a Memorandum of Understanding. Czech Republic, Italy, Germany, and the US are current Members and other Nations are in consideration.

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 Organisations 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 M&S technology, methodologies and the development of M&S professionals. It will be the focal point of an integrated network of M&S training centers and other COEs promoting an interoperable, distributed M&S service to all of NATO and Partnering Nations.

IMPORTANT DATES AND LOCATION

March 2018 Call for Papers	20 April 2018 Abstract Submission Deadline
1 May 2018 Notification of Acceptance	5 August 2018 Full Paper Submission
17-19 October 2018	

MESAS'18 Conference in Prague, CZECH REPUBLIC
within the FUTURE FORCES FORUM Event

TOPICS

Following the outcomes of previous editions and towards new directions, main topic for the year 2018 are:

- Swarming - R&D and Application**
 - Multi-robot Systems
 - Robotic Swarms, Benefits, Threats, and Challenges
 - Distributed Control for Multi-robot Systems
 - Robust Decision Making via Cooperative Estimation
 - Relevant Concepts and Experiments
 - Concepts and Visions of Future Warfare and Application
 - M&S in Capability Evaluation of Robotic Swarms
 - Co-simulation Tools for Multi-domain Analysis
 - Effectiveness, Reliability, and Cyber-Security Issues

Future Challenges of Advanced M&S Technology

- Key Challenges of the Research and Development
- Capability Dev. in Context of Future Ops and Social Environment
- Man versus Computer, Advanced M&S Projects
- Future Technology and Impact on Society

M&S of Intelligent Systems - AI, R&D and Application

- Autonomous Tactical Behaviour
- Math Modelling and Simulation of AI Tasks
- RT Issue and Reality Gaps in Context of New AI Concepts, M&S of Future Operational Tasks

AxS in Context of Future Warfare and Security Environment (Concepts, Applications, Training, Interoperability, etc.)

- Autonomous Systems Strategy and Concept Develop. and Implementation in all Domains of Operation
- Advances in AI and its Impact on Future Operations
- The Role of the Robots and Foot Soldier in the Future Operations
- Security, Use of AxS as Lethal Instruments, Safety of Aviation
- Ethical, Psychological, Legal and Operational Aspects, CIMIC
- Cyber Security (in Context of AxS an their Applications)

ABSTRACTS & REGISTRATION

Authors are invited to send abstracts via the Springer OCS System (refer to the Call for Papers tab at: <https://www.mscoe.org/event/mesas-2018/call-for-paper/>) Registration fee will be specified on Conf. Webpage.

MESAS'18 COMMITTEE

NATO M&S COE Director **MESAS'18 General Chair**
Vincenzo MILANO Adriano FAGIOLINI, University of Palermo

MESAS'18 Event Manager - Jan MAZAL, NATO M&S COE

MESAS'18 Technical Committee

CHAIRMAN: Petr STODOLA, University of Defence Brno, CZ

MEMBERS:
ARRICHIELLO Filippo, University of Cassino and Southern Lazio, IT; BALOGH Richard, Slovak University of Technology in Bratislava, SK; BASCETTA Luca, School of Industrial and Information Engineering of Politecnico di Milano, IT; BRUZZONE Agostino, University of Genoa, IT; D'AMBROGIO Andrea, University of Roma, IT; DRUZDZEL Marek J, University of Pittsburgh, USA; FAIGL Jan, Czech Technical University in Prague, CZ; FARLIK Jan, University of Defence Brno, CZ; FOLTIN Pavel, University of Defence Brno, CZ; FRANTIS Petr, University of Defence Brno, CZ; HASILOVA Kamila, University of Defence Brno, CZ; HLAVAC Vaclav, Czech Technical University in Prague, CZ; HODICKY Jan, University of Defence Brno, CZ; HOLUB Jan, Czech Technical University in Prague, CZ; HRDINA Jaroslav, University of Technology in Brno, CZ; KOSIUCZENKO Piotr, Military University of Technology in Warsaw, PL; KRIVANEK Vaclav, University of Defence Brno, CZ; KULICH Miroslav, Czech Technical University in Prague, CZ; LO BIANCO Corrado Guarino, University of Parma, IT; MANAS Pavel, University of Defence Brno, CZ; MAZAL Jan, M&S COE, Roma, IT; MOSTYN Vladimir, Technical University of Ostrava, CZ; MURRIERI Pierpaolo, Finmeccanica company, IT; NAJGEBAUER Andrzej, Military University of Technology Warsaw Poland; NOVAK Petr, Technical University of Ostrava, CZ; PALLOTTINO Lucia, University of Pisa, IT; PICKL Stefan, Institut für Th.Informatik, Math. und OR, Munchen, GER; POLLINI Lorenzo, University of Pisa, IT; POPELA Robert, University of Technology, Brno, CZ; PRENOSIL Vaclav, Masaryk University in Brno, CZ; PREUCIL Libor, Czech Technical University in Prague, CZ; PROCHAZKA Dalibor, University of Defence Brno, CZ; PROCHAZKA Josef, University of Defence Brno, CZ; PROIETTI Paolo, MIMOS group, IT; ROHAC Jan, Czech Technical University in Prague, CZ; ROLLO Milan, Czech Technical University in Prague, CZ; SASKA Martin, Czech Technical University in Prague, CZ; SCUREK Radomir, Technical University of Ostrava, CZ; SHAFAGH Jafer, Embry-Riddle Aeronautical University, USA; SOSNOWSKI Marcin, Jan Dlugosz University in Czestochowa, POL; STARK Julie, NSWC - Carderock, USA; STUTZ Peter, Bundesweher University, Munich, GER; TOLK Andreas, Old Dominion University in Norfolk, USA; VALIS David, University of Defence Brno, CZ; VASIK Petr, University of Technology, Brno, CZ; VOKRINEK Jiri, Czech Technical University in Prague, CZ; VOLF Premysl, Czech Technical University in Prague, CZ; ZALUD Ludek, University of Technology, Brno, CZ; ZHANG Fumin, Georgia Institute of Technology, USA; ARKIN Ronald, Georgia Institute of Technology, USA; RYBANSKÝ Marian, University of Defence Brno, CZ; CAYIRCI Erdal, University of Stavanger, NOR;

SPONSORSHIP OPPORTUNITIES

 NETWORK EVENING	 BADGE HOLDERS	 ATTENDEE BAGS	 FOLIOS AND PENS
 WORKSHOP PROGRAM	 INFORMATION ROLL-UPS	 VIPS AND ATTENDEES' GIFT	

For further information about sponsorship opportunities please contact the MESAS'18 Event Manager (mesas@mscoe.org) or visit our website (<https://www.mscoe.org/event/mesas-2018>)