

MILITARY ADVANCED ROBOTIC SYSTEMS CONFERENCE (MARS)

20 – 21 OCTOBER 2016, PRAGUE, CZECH REPUBLIC

Chairman



LTC Jan Mazal, Ph.D.
Researcher,
University of Defence, CZE

Motto

“Advanced Robotic Systems – there is no other alternative for survival of mankind in the future”

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Preamble:

The conference is focused on research, development and use of highly automated robotic, autonomous systems in future military/civil security operations.

Rapid headway in the technological level of development of robots, weapons systems and artificial intelligence brings new approaches and opportunities in conducting armed conflict in a wide range of operational deployment and leads to major changes in tactics and the use of armed forces on the battlefield of the future. It can be assumed that the role of human potential in future military operations will undergo significant changes, compared to the present, and it is therefore necessary to devote adequate attention to this phenomenon.

Key changes in progress of the technological level of advancement of robotic and autonomous systems come

faster than we were used to in the past and this factor permeates all (military) operational domains, or even creates new forms (human domain).

The topicality of the issue and its complexity secondarily creates conditions for diversity of opinions, general discussion and exchange of experience in this field, as in the year 2014. In 2016, participation of leading experts from around the world (e.g. Prof. Ronald Arkin /USA/, Prof. Noel Sharkey /GBR/, Mr. Paul Scharre /USA/ and others) and a broad interdisciplinary discussion affecting not only technological, but also the ethical, legal, psychological, economic and other aspects of the use of autonomous robotic systems in future military operations, are also expected.

Session A Future Threats, Challenges and Opportunities of Advanced Robotic Systems	Session B Autonomous Systems and Robotic Swarms – Research, Development and (future) Application
<ul style="list-style-type: none"> Key Challenges of the Contemporary Research and Development Capability Development in Context of Future Operational Environment Man versus Machine Advanced Robotic Projects Future Environment, Technology and Impact on Society 	<ul style="list-style-type: none"> Robotic Swarms, Benefits, Treats and Challenges Important or Interesting Concepts and Experiments Concept of Future Robotic Swarm Warfare Modelling and Simulation in Capability Evaluation of Robotic Swarms Effectiveness and Reliability of Robotic Swarms
Session C Modelling and Simulation of Intelligent Systems – AI, Research, Development and Application	Session D Advanced Robotic Systems in Context of Future Warfare and Security – Concepts, Applications, Standards and Legislation
<ul style="list-style-type: none"> Autonomous Tactical Behaviour Math Modelling and Simulation of AI Tasks Technology, Real Time Issue and Reality Gaps in Context of New Advanced AI Concepts Modelling and Simulation of Future Operational Tasks 	<ul style="list-style-type: none"> Robotic Systems Strategy, Concepts and Implementation in all Operations Domains Advances in Artificial Intelligence and its Impact on Future Military Operations The Role of the Robots and Foot Soldier in the Future Operational Environment Security, Use of Robotic Systems as Lethal Weapons, Safety of Aviation Ethical, Psychological, Legal and Operational Aspects, CIMIC CYBER Security (in Context of Robotic Applications)

Indexing: The Conference proceedings will undergo Thomson Reuters evaluation for inclusion in the Web of Science database.

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General R&D Partner





CONFERENCE PROGRAMME COMMITTEE

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- Prof. Dr. Petr Novák, Dipl. Eng. – VŠB – Technical University of Ostrava, Faculty of Mechanical Engineering, CZE
- Prof. Vladimír Mostýn, Dipl. Eng., Ph.D. – VŠB – Technical University of Ostrava, Faculty of Mechanical Engineering, CZE
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- Mr. Robert Popela, Ph.D. – Institute of Aerospace Engineering, Faculty of Mechanical Engineering, Brno University of Technology, CZE
- Mr. Luděk Žalud, Assoc. Prof., Dipl. Eng., Ph.D. – Head of the Department of Control and Instrumentation, Technical University in Brno, CZE
- Mr. Zdeněk Truhlář, Dipl. Eng. – Director of Security Strategy and Administration, Prague Airport, CZE
- Mr. Martin Láska, Dipl. Eng. – Project Coordinator and Deputy of Technical Director, Military Technical Institute, CZE
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- Mr. Andrej Veľas, Assoc. prof., Ph.D. – Head of Department of Security Management, Faculty of Security Engineering, University of Žilina, SVK
- Prof. Karol Balog, Dipl. Eng., Ph.D. – Director – Institute of Safety, Environment and Quality (MTF), Slovak University of Technology in Bratislava, SVK
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- Jan Faigl, Assoc. Prof., Dipl. Eng., Ph.D. – Faculty of Electrical Engineering, Czech Technical University in Prague, CZE
- Dr. Martin Saska, Dipl. Eng. – Head of Multi-Robot Systems Group at Department of Cybernetics, Czech Technical University in Prague, CZE

MEDIA PARTNERS

Armscom.net, Army-technology.com, AUMA.de, Al Musallh Magazine, Cops Today International, Copybook.com, Counter-IED Report, Cyber Security Review, České vězeňství, Defence and Security Alert, Defence Procurement International, DefenseConference.com, Homeland Security, Global Security, Kommando International Special Operations Magazine, Meteorologické zprávy, Military Systems & Technology, Review, Signal Magazine, Small Arms Defense Journal, Vojenský geografický obzor, International Review of the Armed Forces Medical Services, Military Medical Science Letters, Advances in Military Technology, Fuerzas Militares del Mundo, Armada International, Asian Military Review, Defence and Security of India, SoldierMod.com, ConferenceLocate.com, BodyArmorNews.com, CyberDefenseMagazine.com, CBRNE-Terrorism Newsletter, Europäische Sicherheit

OTHER EVENTS ORGANIZED WITHIN FUTURE FORCES FORUM



- Future Forces Exhibition 2016**, 19 – 21 October 2016, Prague, CZE
- World CBRN & Medical Congress**, 19 – 21 October 2016, Prague, CZE
- Future Soldier Systems Conference**, 20 – 21 October 2016, Prague, CZE
- Geospatial, Hydrometeorological and GNSS Workshop**, 19 – 21 October 2016, Prague, CZE
- Logistics Capability Workshop**, 19 – 21 October 2016, Prague, CZE
- Future of Cyber Conference**, 19 – 21 October 2016, Prague, CZE



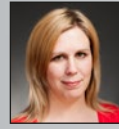
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CONTACTS FOR PARTICIPANTS



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CONFERENCE

Date: **Thursday 20 – Friday 21 October 2016**
Location: **PVA EXPO Prague, Czech Republic**
Type of Event: **Unclassified**

Preliminary Schedule:

Thursday	20 October 2016	
	08:30 – 09:15	Registration
	09:30 – 10:00	Conference opening
	10:00 – 12:00	Session A – presentations, live demonstrations and panels
	12:00 – 13:00	Lunch & Networking
	13:00 – 14:30	Session B – presentations, live demonstrations and panels
	14:30 – 15:00	Refreshment & Networking
	15:00 – 17:00	Session C – presentations, live demonstrations and panels
Friday	21 October 2016	
	08:30 – 09:15	Registration
	09:30 – 10:00	Conference opening
	10:00 – 11:00	Session D – Part I - presentations, live demonstrations and panels
	11:00 – 11:30	Refreshment & Networking
	11:30 – 13:00	Session D – Part II - presentations, live demonstrations and panels
	11:30 – 13:00	Session D – Part II - presentations, live demonstrations and panels

Proceedings: Conference proceedings will be in English. All papers and reference documents will be accessible within 14 days after the conference via FTP (File Transfer Protocol) site. Access is included in the price of delegate registration.

Registration: Registration is compulsory for all participants.
For registration please visit: www.future-forces-forum.org.

ADMISSION FEES

Speakers and VIP Guests	
Delegate Pass + Expert Events Catalogue	FREE OF CHARGE
Government, Military, Police, Firefighters, EMS, Academia, Students	
Delegate Pass excluding Expert Events Catalogue	FREE OF CHARGE
Standard Fees	
Expert Events Catalogue	€2
1-Day Delegate Pass + Expert Events Catalogue	€70
2-Day Delegate Pass + Expert Events Catalogue	€120
3-Day Delegate Pass + Expert Events Catalogue	€120
Early Bird Rate	
Registrations till 31 May 2016	25% OFF

All admission fees include VAT

PRESENTATION OPPORTUNITIES

Presentation - speech, live demo, poster (20 min including Q&A) within the Official Expert Programme*	
Government, Military, Police, Firefighters, EMS, Academia, Students	FREE OF CHARGE
Exhibiting Industry (speech, live demo)	€1000
Non-exhibiting Industry (speech, live demo)	€3000
Poster (exhibiting + non-exhibiting Industry)	€440

* Subject to availability and acceptance by the Programme Committee
Prices exclude VAT



CONTACT FOR EXHIBITION AND PARTNERSHIP



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Project Manager
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IMPORTANT DATES/DEADLINES

Presenter (speech, live demo, poster):
Submitting (abstract+CV+Photo)* On an individual basis
Paper Selection In due time
Submitting full presentation 30 September 2016
Participants registration 30 September 2016**
* Please see the conditions of submission of abstracts at:
www.future-forces-forum.org/download/for-speakers/FFF-How_to_Sumit_an_Abstract.pdf
**Onsite registration will not be possible

ADMISSION POLICY

- Admission is limited to professional and business visitors only
- Business casual or service dress is required
- Visitors under 18 years will not be admitted to the exhibition and expert events
- Identity checks will be conducted as a condition of entry
- Badges are to be collected at the registration desk at PVA EXPO Prague, starting at 08:30
Badges will only be issued to registered delegates

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HOTEL ACCOMMODATION & TRANSPORTATION

The organizer has prepared a list of recommended hotels which are located in the City Centre or near the Venue and close to the public transport.

- Hotel Diplomat
- Hotel 987 Design Prague
- Hotel International
- Hotel Esplanade
- Hotel Fusion
- Hotel Ibis
- Hotel Meteor
- Hotel Pyramida
- Hotel DUO
- Parkhotel
- Clarion Congress Hotel
- Hotel Majestic Plaza
- K+K Hotel Central
- Hotel Holiday Inn
- Hotel Rott
- Hotel Barceló
- Hotel Radisson Blu Alcron

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To get the best available prices, please contact:
Mrs. Olga Pešková
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Phone: +420 277 010 660

2014 FACTS & FIGURES

- 600+ Government, Academia and Industry Participants from 48 Countries
- 15+ International Organizations
- 40+ Generals Representing Brazil, Czech Republic, Germany, Greece, Hungary, Korea, NATO HQ, Netherlands, Jordan, Philippines, Poland, Slovakia, Sweden, United Arab Emirates, United States
- 45+ International Journalists
- 52+ Official Media Partners
- 240 m² Indoor Live Demo Area
- 5000 m² Outdoor Live Demo Area

2014 GALLERY



2014 KEYNOTE SPEAKERS



GEN Petr Pavel
Chairman, Military Committee, NATO



BG Ladislav Jung
Land Forces Deputy Commander, CZE



Prof. Ronald C. Arkin
Regents Professor & Director of the Mobile Robot Laboratory, Associate Dean for Research & Space Planning, College of Computing, Georgia Institute of Technologies, USA



Em. Prof. Noel Sharkey PhD. Dsc. FIET, FBCS CITP FRIN FRSA
Emeritus Professor of Artificial Intelligence and Robotics; Professor of Public Engagement, University of Sheffield; Chairman of the International Committee for Robot Arms Control New American Security, GBR



Mr. Paul Scharre
Fellow and Project Director for the 20YY Warfare Initiative, Center for a New American Security, USA



Mr. Martin Hill
Chairman NATO Industry Advisory Group, NATO

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