

## MULTI-DOMAIN ADVANCED ROBOTIC SYSTEMS CONFERENCE

17 - 18 OCTOBER 2018 PVA EXPO PRAGUE, CZECH REPUBLIC

## PROGRAMME

## WEDNESDAY, 17 OCTOBER 2018 **PVA EXPO PRAHA. HALL 2** 10:00 - 13:15 Registration **Poster Sessions** 12:45 - 13:15 13:30 - 14:00 CONFERENCE OPENING INTRODUCTORY Mr. Jakub ŽELEZNÝ – Moderator, Czech Television, CZE REMARKS: KEYNOTE SPEECH: GEN Petr PAVEL – Former Chairman of the NATO Military Committee, CZE Mr. Zdeněk JELÍNEK - Director of the Civil Aviation Department, Ministry of Transport, CZE Mr. Thomas KILLION – Chief Scientist, Science and Technology Organization, NATO LTC Jan MAZAL – Chairman MARS Conference; Doctrine Education and Training Branch Chief, NATO Modeling & Simulation Centre of Excellence, NATO 14:00 - 16:00 DISCUSSION FORUM/PLENARY – Topics at Strategic Level: - UAVs/Drones – Potential of the Future; Civil - Military - Security Forces Cooperation - Artificial Intelligence – Pros & Cons - Regulatory Processes – Implementation, Effectivity, Enforcement - Ethical, Moral, and Legal Aspects of UAVs/Drones Usage Mr. Jakub ŽELEZNÝ – Moderator, Czech Television, CZE MODERATOR: PANELISTS: (in alphabetical order) Prof. Ronald C. ARKIN - Regents' Professor & Director of the Mobile Robot Laboratory, Associate Dean for Research & Space Planning, College of Computing, Georgia Institute of Technology, USA Prof. Agostino BRUZZONE - President of Simulation Team & MIPET Full Professor, DIME, University of Genova, ITA Mr. Thomas C. IRWIN - Executive Director, Joint Training Joint Force Development, Joint Chiefs of Staff, Joint Staff J7, US Department of Defense, USA Mr. Thomas KILLION - Chief Scientist, Science and Technology Organization, NATO Mr. Jan KLAS – Director General, Air Navigation Services of the Czech Republic, CZE Mr. Zdeněk KUČERA - Head of the Dispute Resolution and TMT practices at Kinstellar's Prague office, CZE NAVY CAPT Vincenzo MILANO – Director NATO Modeling & Simulation Centre of Excellence, NATO Mr. Kevin MILLS – Associate Director of Robotics for Tank Automotive Research Development and Engineering Center (TARDEC), USA GEN Petr PAVEL - Former Chairman of the NATO Military Committee, CZE Prof. Michal PĚCHOUČEK – Department of Computer Science, Czech Technical University in Prague, CZE

CDR Joe STRASSBERGER - OF-4 US Navy, Concept Development Branch, NATO SACT, NATO

FUTURE	
FORUM	THURSDAY, 18 OCTOBER 2018 PVA EXPO PRAHA, HALL 2
08:30 - 09:15	Registration
09:00 - 09:15	Poster Sessions
09:30 - 12:00	MARS CONFERENCE
09:30 - 09:50 INTRODUCTORY REMARKS:	LTC Jan MAZAL – Chairman MARS Conference; Doctrine Education and Training Branch Chief, NATO Modeling & Simulation Centre of Excellence, NATO Mr. Milan ROLLO – Researcher; Vice-chairman MARS Conference, Czech Technical University in Prague, CZE
09:50 - 10:10	Autonomy and AI: Key Enablers for future NATO Capabilities Mr. Thomas KILLION – Chief Scientist, Science and Technology Organization, NATO
10:10 - 10:30	Drones and Digital Airspace: Opportunities and Challenges from Perspective of Ministry of Transport Mr. Tomáš PUSTINA – Head of Unit at the Civil Aviation Department, Ministry of Transport, CZE
10:30 - 11:00	US DoD Visions/Strategy in Autonomous Systems and Robotic implementation in Future Warfare/ US Army Development Mr. Thomas C. IRWIN – Executive Director, Joint Training Joint Force Development, Joint Chiefs of Staff, Joint Staff J7, US Department of Defense, USA
11:00 - 11:30	Multi-domain Integrative Architectures for multirobot teams: Land, Sea, Air and now Subterranean <u>Prof. Ronald C. ARKIN</u> – Regents' Professor & Director of the Mobile Robot Laboratory, Associate Dean for Research & Space Planning, College of Computing, Georgia Institute of Technology, USA
11:30 – 12:00	Digital Dust BG (Ret.) Ofer TSAFRIR - Maneuvering Program Manager, Bagira Sytems, ISR
12:00 - 13:00	Lunch & Networking
12:45 - 13:00	Poster Sessions
13:00 - 16:00	MARS CONFERENCE
13:00 - 13:20	NATO ACT Autonomy Program Overview and Strategy/Vision CDR Joe STRASSBERGER – OF-4 US Navy, Concept Development Branch, NATO SACT, NATO
13:20 - 13:40	Looking ahead for Beyond Line of Sight Mr. Christoph SULZBACHNER – Senior Engineer, Austrian Institute of Technology, AUT
13:40 - 14:00	The US Army's Approach to Unmanned Mobility <u>Mr. Kevin MILLS</u> – Associate Director of Robotics, US Army Training and Doctrine Command (TARDEC), USA
14:00 - 14:20	Drones – knowledge and experience of their use under the conditions of the Czech Fire Brigade <u>COL Ondřej SUCHÝ</u> – Technical Institute of Fire Protection in Prague, CZE
14:20 - 14:40	Coffee Break & Networking
14:40 - 15:00	GOLD Partner presentation – Military Technical Institute   Perspective Unmanned VTU s. p. Systems for ACR   Mr. Jiří NOHÝL – Researcher, Military Technical Institute, CZE
15:00 - 15:20	Eagle.one – Autonomous drone hunter using onboard AI for safe elimination of unauthorized aerial systems Mr. Martin SASKA – Senior researcher, MRS, Czech Technical University in Prague, CZE
15:20 - 15:40	Future Imperfect - Conundrum of Suddenly Human and Bio-Convergent: What Will the Future Army Look Like in 2050? Cybersecurity and Governance Considerations for the Use of Military Advanced Robotic Systems in Smart Environments <u>Ms. Ina WANCA</u> – Professor at NYU, and John Jay College of Criminal Justice. Founder of AI Governance, USA
15:40 - 16:00	MARS Summary and Conference Closing Remarks <u>LTC Jan MAZAL</u> – Chairman MARS Conference; Doctrine Education and Training Branch Chief, NATO Modeling & Simulation Centre of Excellence, NATO <u>Mr. Milan ROLLO</u> – Researcher; Vice-chairman MARS Conference, Czech Technical University in Prague, CZE
16:15 - 17:00	SOCIAL EVENT FOR SPEAKERS, Leonardo Helicopters VIP Lounge, Hall 4