<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday, August 10, 2021</th>
<th>Wednesday, August 11, 2021</th>
<th>Thursday, August 12, 2021</th>
<th>Friday, August 13, 2021</th>
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</table>
| 08:00      | Student AS Competition on Vehicle Trajectories Tracking by Drones  
Chair: Prof. S. Yanushkevich and Dr. A. Mohammadi | Welcome Chair  
Dr. Arash Mohammadi, All Co-Chairs | Keynote 4  
Morphogenetic Self-organization of Swarm Robots  
Prof. Yuchao Jin, IEEE Dept. of Computer Science, University of Surrey, Guildford, UK  
Chair: Dr. Lucio Marcone | Keynote 7  
Bayesian Emergent Self Awareness  
Prof. Carlo S. Regazzoni  
Chair: Lucio Marcone |
| 09:00      |                                      | Keynote 1  
Drones Vision and Deep Learning for Infrastructure Inspection  
Prof. Ioannis Pitas, IEEE, EURASIP Aristotle University of Thessaloniki (AUTH), Greece  
Chair: Prof. Konstantinos Plataniotis | Keynote 5  
Improving Manipulation Capabilities of Autonomous Robots  
Dr. Anthony Vetro, IEEE Vice President and Director at Mitsubishi Electric USA, USA  
Chair: Dr. Farokh Atashzar | Keynote 8  
On Ethics of Autonomous and Intelligent Systems (AI)  
Prof. Hagit Messer, IEEE The Kranzberg Chair in Signal Processing, School of Electrical Engineering, Tel Aviv University, Israel |
| 09:15      |                                      | Parallel Sessions  
MT1. Framework of Autonomous Systems  
Chair: Yingru Wang  
ST1. Autonomous Medical Robotic Systems  
Chairs: Mahdi Tavakoli, Farokh Atashzar, and Darío Farina | Parallel Sessions  
MT3. Autonomous System and AI  
Chair: Farokh S. Atashzar  
ST3. Autonomous Control Systems  
Chairs: Giuseppe Franzè and Walter Lucia | Parallel Sessions  
MT5. AS Solutions for Emerging Applications  
Chair: Farokh S. Atashzar  
ST5. Signal Processing for Self-Aware & Social AS  
Chair: Hoi-To Wai and Usman Khan |
| 09:45      |                                      | Keynote 2  
Verification, Trustworthiness and Accountability of Human-Driven Autonomous Systems  
Prof. Imre Rudas, FIEEE, and Prof. Robert Azoma, FIEEE, FRAIRO, Dept. of Mathematics, University of Tehran, Iran  
Chair: Dr. Arash Mohammadi | Keynote 6  
Information Fusion and Decision Support for Autonomous Systems  
Prof. Henry Leung, IEEE, FIEEE, Dept. of Electrical and Computer Engineering, University of Calgary, Canada  
Chair: Dr. Arash Mohammadi | Parallel Sessions  
MT6 Emerging Technologies for Autonomous Systems (e)  
Chair: Arash Mohammadi  
SS5. Autonomous Diagnosis/Prognosis of COVID-19  
Chair: Farnaz Naderkhani and Mohammad J. Rafie |
| 10:00      | Coffee Break  
10:00 - 17:10  
Summer School of the AutoDefence Netw  
Chairs: Prof. S. Yanushkevich and Dr. A. Mohammadi | Parallel Sessions  
MT2. Emerging Technologies for Autonomous Systems (i)  
Chair: Lucio Marcone  
ST5. Autonomous Vehicle Systems  
Chair: Rui Fan and Ioannis Pitas | Parallel Sessions  
MT4. Application Paradigms of Autonomous Systems  
Chairs: Amir Asif  
SS3. Trustworthy Autonomous Human-Machine Systems  
Chairs: Yingpu Hu and Boris Fidan | Parallel Sessions  
MT7 Emerging Technologies for Autonomous Systems (f)  
Chair: Amir Asif  
SS7. Autonomous Diagnostics  
Chair: Farnaz Naderkhani and Mohammad J. Rafie |
| 10:15      |                                      | Poster Sessions  
Chair: A. Mohammadi | Keynote 3  
Sustainable Autonomy: Challenges and Perspectives  
Prof. Robert Azoma, FIEEE, FRAIRO, Dept. of Mathematics, University of Tehran, Iran  
Chair: Dr. Arash Mohammadi | Keynote 9  
Enabling Trust in Autonomous Human–Machine Teaming  
Dr. Ming Hou, SMIEEE, FIDCC, Defence Research and Development Canada (DRDC), Ottawa, Canada  
Chair: Prof. Yingru Wang |
| 10:30      |                                      | Tutorial (i)  
Chair: S. Yanushkevich | Tutorial (ii)  
Chair: S. Yanushkevich | Tutorial (iii)  
Chair: S. Yanushkevich |
| 11:00      |                                      | Lunch | Coffee Break | Coffee Break |
| 11:15      |                                      | Lunch | Lunch | Lunch |
| 11:30      |                                      | Keynote 9  
Enabling Trust in Autonomous Human–Machine Teaming  
Dr. Ming Hou, SMIEEE, FIDCC, Defence Research and Development Canada (DRDC), Ottawa, Canada  
Chair: Prof. Yingru Wang | Parallel Sessions  
MT8. Emerging Technologies for Autonomous Systems (g)  
Chair: Amir Asif  
SS8. Autonomous Diagnosis/Prognosis of COVID-19  
Chair: Farnaz Naderkhani and Mohammad J. Rafie | Parallel Sessions  
MT9 Emerging Technologies for Autonomous Systems (h)  
Chair: Amir Asif  
SS9. Autonomous Diagnosis/Prognosis of COVID-19  
Chair: Farnaz Naderkhani and Mohammad J. Rafie |
| 11:45      |                                      | Keynote 10  
Inspection of Swarms  
Chair: Dr. Arash Mohammadi  
SS1. Autonomous Systems at DITEN, University of Genoa, Italy  
Chair: Prof. Andrea Marcacci | Keynote 11  
Enabling Trust in Autonomous Human–Machine Teaming  
Dr. Ming Hou, SMIEEE, FIDCC, Defence Research and Development Canada (DRDC), Ottawa, Canada  
Chair: Prof. Yingru Wang | Keynote 12  
Enabling Trust in Autonomous Human–Machine Teaming  
Dr. Ming Hou, SMIEEE, FIDCC, Defence Research and Development Canada (DRDC), Ottawa, Canada  
Chair: Prof. Yingru Wang |
| 12:00      |                                      | Keynote 11  
Inspection of Swarms  
Chair: Dr. Arash Mohammadi  
SS1. Autonomous Systems at DITEN, University of Genoa, Italy  
Chair: Prof. Andrea Marcacci | Keynote 12  
Enabling Trust in Autonomous Human–Machine Teaming  
Dr. Ming Hou, SMIEEE, FIDCC, Defence Research and Development Canada (DRDC), Ottawa, Canada  
Chair: Prof. Yingru Wang | Plenary Panel  
Future Development of Autonomous Systems Panels (TBA)  
Chair: Prof. Yingru Wang |
| 12:30      |                                      | Lunch | Coffee Break | Awards  
All Co-Chairs |
| 12:45      |                                      | Lunch | Lunch | |
| 13:00      |                                      | Keynote 12  
Enabling Trust in Autonomous Human–Machine Teaming  
Dr. Ming Hou, SMIEEE, FIDCC, Defence Research and Development Canada (DRDC), Ottawa, Canada  
Chair: Prof. Yingru Wang | Parallel Sessions  
MT10 Emerging Technologies for Autonomous Systems (i)  
Chair: Amir Asif  
SS10. Autonomous Diagnosis/Prognosis of COVID-19  
Chair: Farnaz Naderkhani and Mohammad J. Rafie | Awards  
All Co-Chairs |