

	Tuesday August 10, 2021	Wednesday August 11, 2021	Thursday August 12, 2021	Friday August 13, 2021
08:00	Student AS Competition on Vehicle Trajectories Tracking by Drones Chairs: Dr. David Martín and Dr. Lucio Marcenaro	Welcome Chair Dr. Arash Mohammadi, All Co-Chairs	Keynote 4 Morphogenetic Self-organization of Swarm Robots Prof. Yaochu Jin, FIEEE Dept. of Computer Science, University of Surrey, Guildford, UK Chair: Dr. Lucio Marcenaro	Keynote 7 Bayesian Emergent Self Awareness Prof. Carlo S. Regazzoni Cognitive Telecommunications systems at DITEN, University of Genova, Italy Chair: Dr. Lucio Marcenaro
09:00				
09:15				
09:30				
09:45				
10:00	Coffee Break	Keynote 1 Drone Vision and Deep Learning for Infrastructure Inspection Prof. Ioannis Pitas, FIEEE, FEURASIP Aristotle University of Thessaloniki (AUTH), Greece Chair: Prof. Kostas Plataniotis	Keynote 5 Improving Manipulation Capabilities of Autonomous Robots Dr. Anthony Vetro, FIEEE Vice President and Director at Mitsubishi Electric Research Labs, USA Chair: Dr. Farokh Atashzar	Keynote 8 On Ethics of Autonomous and Intelligent Systems (AIS) Prof. Hagit Messer, FIEEE The Kranzberg Chair in Signal Processing, School of Electrical Engineering, Tel Aviv University, Israel Chair: Prof. Amir Asif
10:15	10:00 - 17:10 Summer School of the AutoDefence Netw Chairs: Prof. S. Yanushkevich and Dr. A. Mohammadi			
	Welcome M. Hou, S. Yanushkevich, A. Mohammadi	Parallel Sessions MT1. Framework of Autonomous Systems Chair: Yingxu Wang ST1. Autonomous Medical Robotic Systems Chairs: Mahdi Tavakoli, Farokh Atashzar, and Dario Farina	Parallel Sessions MT3. Autonomous System and AI Chair: Farokh S. Atashzar ST3. Autonomous Control Systems Chairs: Giuseppe Franze and Walter Lucia	Parallel Sessions MT5. AS Solutions for Engineering Problems Chair: Farokh Atashzar ST5. Signal Processing for Self-Aware & Social AS' Chairs: Hoi-To Wai and Usman Khan
10:30	Coffee Break			
10:45	Coffee Break			
11:00	Tutorials (I) Chair: S. Yanushkevich			
11:15				
11:30				
11:45				
12:00				
12:15	Lunch	Lunch	Lunch	
12:30				
12:45				
13:00				
13:15				
13:30	Poster Sessions Chair: A. Mohammadi	Keynote 2 Verification, Trustworthiness and Accountability of Human-Driven Autonomous Systems Prof. Imre Rudas, FIEEE, and Prof. Tamás Haidegger, PhD Óbuda University, Budapest, Hungary Chair: Prof. Yingxu Wang	Keynote 6 Information Fusion and Decision Support for Autonomous Systems Prof. Henry Leung, FIEEE, FSPIE Dept. of Electrical and Software Eng., Univ. of Calgary, Canada Chair: Dr. Arash Mohammadi	Lunch
13:45				
14:00		Keynote 3 Sustainable Autonomy: Challenges and Perspectives Prof. Robert Azoma, FIEEE, FINNS Dept. of Mathematics, University of Memphis, TN, USA Chair: Dr. Arash Mohammadi		
14:15		Coffee Break		
14:30				
14:45	Coffee Break	Parallel Sessions MT4. Application Paradigms of Autonomous Systems Chairs: Amir Asif SS3. Trustworthy Autonomous Human-Machine Systems Chairs: Yaoping Hu and Baris Fidan	Keynote 9 Enabling Trust in Autonomous Human-Machine Teaming Dr. Ming Hou, SMIEEE, FI2CICC Defence Research and Development Canada (DRDC), Toronto, Canada Chair: Prof. Yingxu Wang	
15:00	Parallel Sessions MT2. Emerging Technologies for Autonomous Systems (I) Chair: Lucio Marcenaro SS1. Autonomous Vehicle Vision Chair: Rui Fan and Ioannis Pitas			
15:15				
15:30				
15:45				
16:00				
16:15	Parallel Sessions ST2. Security & Resilience of Auto. Cyber-Physical Sys. Chair: Deepa Kundur and Mohammad Janaideh SS2. Advanced Navigation for Networked AS' Chair: Siwei Zhang and Henk Wymeersch	Parallel Sessions ST4. Autonomous Transportation Systems Chairs: Chun Wang and Anjali Awasthi SS4. Explainable Machine Learning for AS' Chairs: Yong M. Ro, Parnian Afshar and Kostas Plataniotis	Parallel Sessions MT6 Emerging Technologies for Autonomous Systems (II) Chair: Arash Mohammadi SS5. Autonomous Diagnosis/Prognosis of COVID-19 Chairs: Farnoosh Naderkhani and Moazedin J. Rafie	
16:30				Coffee Break
16:45				Coffee Break
17:00				Summary All Co-PIs
17:15				
17:30				
17:45				
18:00	Coffee Break			
18:15			Plenary Panel Future Development of Autonomous Systems Panelists (TBA) Chair: Prof. Yingxu Wang	Awards All Co-Chairs