Vertical and Topical Tracks Program

(WEDST – Western European Daylight Savings Time, Local Time in Aveiro)

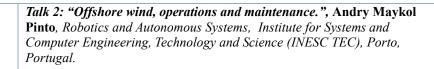
San Francisco	New York	Aveiro	Rome	New Delhi	Beijing
00:30h-02:30h PDST	03:30h-05:30h EDST	08:30h-10:30h WEDST	09:30h-11:30h CEST	13:00h-15:00h IST	15:30h-17:30h CST
03:00h-05:00h PDST	06:00h-08:00h EDST	11:00h-13:00h WEDST	12:00h-14:00h CEST	17:30h-19:30h IST	20:00h-22:00h CST
06:00h-08:00h PDST	09:00h-11:00h EDT	14:00h-16:00h WEDST	15:00h-17:00h CEST	20:30h-22:30h IST	23:00h-01:00h CST (Next Day)
08:00h-10:00h PDST	11:30h-13:30h EDST	16:00h-18:00h WEDST	17:00h-19:00h CEST	22:30h-00:30h IST (Next Day)	01:00h-03:00h CST (Next Day)

Key to Vertical and Topical Tracks (details)

Special Sessions	Subject	Workshops	Subject
Vert-01	Space	Topi-01	Sensors and Devices
Vert-02	Maritime	Topi-02	Communications and Networking
Vert-03	Agriculture and Aquaculture	Topi-03	Security, Privacy, and Trust
Vert-04	Smart Cities and Mobility	Topi-04	Artificial Intelligence and Machine Learning
Vert-05	Energy, Built Environment, and Sustainability	Topi-05	Computing and Data Processing
Vert-06	Industry and Manufacturing		

Vertical and Topical Track Program Chairs
 Damir Filipovic, Alliance for IoT and Edge Computing Innovation (AOTI), Brussels, Belgium Heiner Stüttgen, IEEE Communications Society & NEC Laboratories Europe (retired), Heidelberg, Germany

Vert-02	" <u>Maritime</u> "		
	Chairs	 Gerard Dooley, University of Limerick, Limerick, Ireland Henry Leung, University of Calgary, Calgary, Alberta, Canada José Luís Melo, University of Limerick, Limerick, Ireland 	
	Vert-02 - Session 2	Session 2: "Long Endurance and Heterogeneous Systems." "	
		Moderator: Petar Trslic, University of Limerick, Limerick, Ireland	
	Tuesday October 24th 14:00-16:00 WEDST Virtual	Talk 1: "Heterogeneous Autonomous Vehicles and Sensors for Port Inspection and Maintenance.", James Riordan, Reader (Associate Professor) in Robotics & Autonomous Vehicles, School of Computing, Engineering, and Physical Sciences, University of the West of Scotland.	
		Talk 2: "Robots helping Robots.", Ivan Kingman, Maritime Robotics, Trondheim, Norway.	
		Talk 3: "Underwater vehicles and sensors for the Ocean environment.", Natàlia Hurtós, Software Product Manager, IQUA Robotics, Girona, Spain.	
	Vert-02 - Session 3	Session 3: "Communications and operations within the maritime Domain."	
		Moderator: Gerard Dooly, University of Limerick, Limerick, Ireland	
	Wednesday October 25th 14:00-16:00 WEDST Virtual	Talk 1 (Presentation 1462): "Multimodal Underwater Acoustic Communication Networks.", Filippo Campagnaro, Università degli Studi di Padova, Padua, Italy.	
	VII tuai	Talk 2: "Challenges in Cooperative vehicles and sensors.", Joao Sousa, Underwater Systems and Technology Laboratory, University Porto, Porto, Portugal.	
		Talk 3: "Mari-Sense project and offshore LoRaWAN networks.", Antonis Hadjiantonis, Senior Engineer, Cyprus Research & Innovation Center Ltd (CYRIC), Nicosia, Cyprus.	
	Vert-02 - Session 4	Session 4: "Deployed Sensing and Applications."	
		Moderator: Edin Omerdic, University of Limerick, Limerick, Ireland.	
	Thursday October 26th 14:00-16:00 WEDST Virtual	Talk 1: "Sensor Nodes and Platforms.", Anja Babic, Laboratory for Underwater Systems and Technologies (LABUST), Faculty of Electrical Engineering and Computing, University of Zagreb, Zagreb, Croatia.	



Talk 3: "Offshore monitoring using RGB sensors, Hyperspectral imagers and Machine Learning.", Gerard Dooly, Co-Director of the Centre for Robotics and Intelligent Systems, University of Limerick, Limerick, Ireland.