

Programme

Advances in Localization and Navigation



Please note that times given for individual presentations within one section are approximate.

This version of programme contains only URL links to freely accessible workshops.

All times are given in CET (UTC+1).

March 17. 3. 2021				
Start	End	Title	Author/Moderator	URL
13:00	13:05	Welcome	Jiří Horák, Michal Kačmařík (VSB-TU Ostrava)	
13:05	13:35	Mobile Robot Localization in Challenging Environments: A Multi-Sensor Fusion Approach	Stephan Michael Weiss (Alpen-Adria-Universität Klagenfurt)	
13:35	13:40	Discussion		
13:40	14:10	Covid-19 Contact Tracing Apps - Is Bluetooth a Reliable Technique for Distance Estimation?	Günther Retscher (TU Wien)	
14:10	14:15	Discussion		
14:30	16:00	GNSS positioning using low-cost receivers for pedestrian navigation and mapping applications	Paolo Dabove (Politecnico di Torino)	https://go.mywebinar.com/cvbm-hlpi-mkqx-dwkm
Thursday 18. 3. 2021				
		Section Satellite positioning and navigation	Michal Kačmařík, Petr Rapant (VSB-TU Ostrava)	
9:00	9:20	GOP contribution to independent monitoring of Galileo OS navigation performance	J. Douša, P. Václavovic, M. Kala, P. Bezděka, L. Zhao (Research Institute of Geodesy, Topography and Cartography)	
9:20	9:40	Accuracy evaluation of ionospheric delay from multi-scale reference networks and its application for fast PPP ambiguity resolution	L. Zhao, J. Douša, P. Václavovic (Research Institute of Geodesy, Topography and Cartography)	
9:40	10:00	Assessment of the multi-GNSS PPP performance using precise products from the Wuhan Analysis centre	W. Li, M. Kačmařík (VSB-TU Ostrava)	
10:00	10:20	Addressing the potential of GNSS moving base station technique for vehicular C-ITS applications: preliminary tests and results	T. Mpimis, P. Sotiriou, V. Gikas (National Technical University of Athens)	
10:45	12:15	Visual-Inertial Navigation: Basics and Beyond	Stephan Weiss (Alpen-Adria-Universität Klagenfurt)	https://go.mywebinar.com/kgzn-dghb-silx-fxza
13:00	15:00	Techniques and Systems for Wi-Fi Positioning	Günther Retscher (TU Wien)	https://go.mywebinar.com/slnz-ljcz-cgsm-cdmp
		Section Location based services and mapping	Michal Kačmařík (VSB-TU Ostrava), Paolo Dabove (Politecnico di Torino)	
15:15	15:35	Towards Development and Verifications of Advanced Optimal Farm Machinery Route Algorithm	T. Řezník, M. Klocová, F. Leitner, T. Pavelka, L. Herman, J. Hrádek, Š. Leitgeb, K. Trojanová, M. Konečný (MUNI)	

15:35	15:55	New geomatics techniques for bees monitoring: The Beems Project	V. <u>Di Pietra</u> , P. Dabove (Politecnico di Torino)	
15:55	16:15	Methodology of using terrain passability maps for planning the movement of troops and navigation of unmanned ground vehicles	K. <u>Pokonieczny</u> , W. Dawid (Military University of Technology)	
16:15	16:35	Some peculiarities of creation (updating) of digital topographic maps for the seamless topographic database of the main state topographic map in Ukraine	N. <u>Lazorenko-Hevel</u> , Y. Karpinskyi, D. Kin (Kyiv National University of Construction and Architecture)	
Friday 19. 3. 2021				
		Section Intelligence in localization and navigation	Michal Kačmařík, Pavel Kukuliač (VSB-TU Ostrava)	
9:00	9:20	Low-cost positioning and heading determination system: experimental classical 2D EKF sensors fusion and accuracy evaluation	A. <u>Kaczmarek</u> , W. Rohm, L. Klingbeil, J. Tchórzewski (Wroclaw University of Environmental and Life Sciences, University of Bonn, StatumGPS)	
9:20	9:40	Validation of UGV autonomous navigation based on an adapted path planning algorithm using UAV imagery	F. Messina, F. Faedda, V. <u>Di Pietra</u> , A. Lingua (Politecnico di Torino)	
9:40	10:00	Intelligent velocity control of mobile robots using fuzzy and supervised machine learning	M. S. Gharajeh, H. B. <u>Jond</u> (Islamic Azad University, VSB-TU Ostrava)	
10:00	10:20	Design and Testing of a Fuel Consumption Eco-Driving Coach System for Truck Drivers based on Geolocation and BI Technologies	I. Stratakos, P. Sotiriou, <u>H. Perakis</u> , V. Gikas, K. Spiliotakopoulos, D. Pelekoudas (National Technical University of Athens, Fortion Transport, Patras Informatics)	
10:20	10:40	Analysis of the soil conditions for the movement of vehicles	S. <u>Borkowska</u> , K. Pokonieczny (Military University of Technology)	
10:40	11:00	3D classification optimization of airborne LiDAR data by parameters selection	B. E. <u>Aissou</u> , A. B. Aissa (University Of Science And Technology Houari Boumediene)	