

1st Workshop of project URITMIS

Urban railway infrastructure predictive maintenance system based on monitoring of vibro-acoustic track properties

As a side-event of CETRA 2024, Faculty of Civil Engineering University of Zagreb is holding a workshop of recently started project **URITMIS - Urban railway infrastructure predictive maintenance system based on monitoring of vibro-acoustic track properties.**

The project supports a young team of experts that are working towards developing predictive maintenance models based on long term monitoring of faults on tramway infrastructure by utilising vibration-based measurements on in-service tramway vehicles.

The project is financed through National Recovery and Resilience Plan 2021-2026 (NPOO) of Republic of Croatia (NPOO.C3.2.R2-11.06).



Workshop agenda Hotel Croatia, Cavtat, Hall D (Šipun), 17.5.2024.

09:00 – 10.30		Part 1 – URITMIS project overview	
09:00 – 9.30	Welcome and introduction to project background, goals, activities and expected outcomes	Prof. Stjepan Lakušić Assist.prof. Ivo Haladin	
09:30 – 9.45	Vibro-acoustic characterisation of tramway monitoring data (corrugation, welds, crossings, switches)	Krešimir Burnač	
9:45 – 10:00	Numerical models for condition monitoring and predicting the degradation of the tram track	Maja Baniček, PhD	
10:00 – 10:15	Overview of machine learning methods for detection and prediction of faults on rail infrastructure	Assist.prof. Ivo Haladin Nenad Trifunović	
10:15 – 10:30	Discussion		
10:30 – 11:00	Coffee break		
11:00 – 13:00		Part 2 – Experts contributions	
11:00 – 11:30	Vehicle-track interaction measurement and analysis using data from in-service vehicles	Prof. Stanislav Jovanović, University of Novi Sad, Serbia	
11:30 – 12:00	Monitoring of railway infrastructure and maintenance from in-service vehicles	Ron Mass, Sensornet B.V.	
12:00 – 12:30	Power of deep learning / machine learning and industrial applications	Prof. Kristijan Lenac, Nenad Trifunović, University of Rijeka Faculty of Engineering	
12:30 – 13:00	Discussion and workshop closure		
13:00 – 14:00	Lunch for workshop participants		