TECHNISCHE UNIVERSITÄT WIEN

Bundesministerium Arbeit und Wirtschaft

Christian Doppler Forschungsgesellschaft

Third Annual Open Day and Workshop
Christian Doppler Laboratory
Digital Twin assisted AI for sustainable RAN

Head of laboratory: Philipp Svoboda

November 14, 2025

09:00 – 14:00

Kontaktraum Neues EI - 6th floor

institute of telecommunications

ÖBB

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NOKIA

Program

	09:00 – 9:15	Welcome Coffee Session	
	09:15 – 09:30	Opening Session	
		– Coffee Refill –	
Morning	10:00 – 12:00	**Research Update by CD-Lab Members**	
		Graph-Based DT for Sustainable Radio Access Networks	M. Mussbah
		Crowdsourced Digital Twin for Railways	S. Tripkovic
		The Vienna Data Set: AI Comparison in Large Scale	P. Schwarzinger
		The Vienna Data Set: MDT vs Drive-testing	V. Maresch
		The Vienna Data Set: Extending towards flexible Tilt Data	D. Rössler
		– Lunch Break –	
Afternoon	13:00 – 14:30	**Research Update by CD-Lab Members**	
		Prediction and Classification of Coverage in Rural Areas	W. Wiedner
		AI driven Classification of Coverage in rural Areas	M. El-Chayeb
		Beam Pattern Analysis for 5G in Vienna	I. Radojevic
		Channel Sounding based on LTE Reference Signals	G. Krainz
	14:30 – 14:45	Outlook 2026	
		– Coffee, Networking and F2F Project Activity –	

CD-Lab Modules

Opening Session
Philipp Svoboda

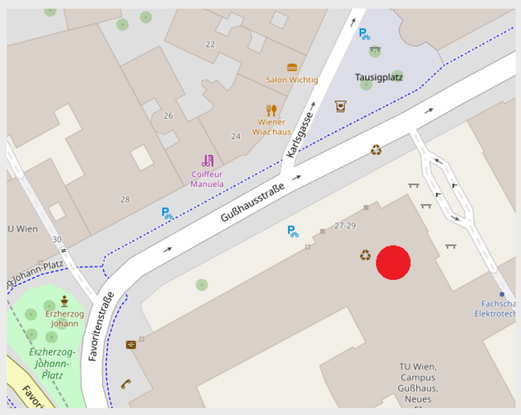
DT assisted AI: Campus
Mariam Mussbah, Wilfried Wiedner

DT assisted AI: Railroad
Sonja Tripkovic, Philip Schwarzinger

DT assisted AI: Sensing
Michael Meiseneder, Maroun El-Chayeb

Outlook 2025
Philipp Svoboda

Location



Kontaktraum (6th floor)
Gusshausstrasse 27-29
1040 Wien

Project Details

This CD laboratory aims to create a foundation for using artificial intelligence (AI) based learning and training methods in wireless networks in various scenarios, with the benefits of efficiency, sustainability, and reliability. For this purpose, we develop so-called “digital twins” (DT), representing enormously different environments such as trains, industrial sites, and dynamic environments, along with the corresponding wireless access and user populations.

Registration and online Information

Please register until November 8

E-Mail: philipp.svoboda@tuwien.ac.at

Information for virtual attendance and offline videos here: Link
Meeting ID: XXX XXX XXX XXX Passcode: XXXXXXX

Contact

CHRISTIAN DOPPLER LABORATORY
DIGITAL TWIN ASSISTED AI FOR SUSTAINABLE RAN

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