TECHNICAL WORKSHOP ON LANDSLIDE WARNINGS AND PREDICTIONS USING IoT AND MACHINE LEARNING
23 FEBRUARY 2023

The WG8 on IoT-based Monitoring and Warning of LANDAWARE, in cooperation with ISSMGE TC309 (Machine Learning and Big Data in Geotechnics), organises a Technical Workshop on Landslide Warnings and Predictions using IoT and Machine Learning on the 23rd of February 2023, 9:00-12:00 (CET).

The event will be conducted in a digital mode via Teams - Meeting ID: 331 710 067 783; Passcode: V6tSh9.

To advance the understanding of landslide monitoring and modelling, this Workshop will provide a platform for academics and practitioners to share insights and experience gained from research and practice.

Participation at the event is free of charge. If you have any questions or require more information, please contact the co-chair of the Organising Committee, Dr Luca Piciullo - luca.piciullo @ngi.no.

PROGRAM

TIME (OSLO)	SPEAKER	AGENDA
09:00 - 09:10	Luca Piciullo, Chair WP8 Zhongqiang Liu, Chair, TC309	Welcome
09:10 - 09:20	Dylan Mikesell (NGI)	Introduction of the workshop Main themes and agenda for the day
INVITED TECHNICAL PRESENTATIONS		
09:20 - 09:45	Yu-Hsing WANG HKUST, Hong Kong	AI and IoT for landslide inventory and monitoring
09:45 - 10:10	Emir Ahmet Oguz NGI, Norway	IoT based hydrological monitoring of water induced landslides and early warning strategies
10:10- 10:20	Health break	
10:20 – 10:45	Marianna Pirone University of Naples Federico II, Italy	An early warning procedure based on coupling short-time weather forecasting and numerical slope analysis
10:45 - 11:10	Marios Angelopoulos Bournemouth University, UK	IoT-enabled coastal landslide monitoring: A 5G Rural Dorset use case
PANEL DISCUSSION		
11:10 - 11:50	Invited lecturers, All participants	IoT-based monitoring and modelling perspective
11:50 - 12:00	Luca Piciullo	Closing summary

Yu-Hsing Wang

Ir. Prof. Yu-Hsing Wang received his Ph.D. in Civil Engineering from Georgia Institute of Technology, where he received the George F. Sowers Distinguished Graduate Student Award for Ph.D. Students. He is a Fellow of ASCE and HKIE. Currently, he is Associate Dean of the School of Engineering and Professor at the Department of Civil and Environmental Engineering, the Hong Kong University of Science and Technology (HKUST). In 2005, he received the ASTM International Hogentogler Award. In 2013, he received the Distinguished Alumni Award from the Department of Civil Engineering, National Taiwan University.

Emir Ahmet Oguz

Dr. Emir Ahmet Oguz is currently employed at Norwegian Geotechnical Engineering (NGI) in the Geotechnics and Natural Hazards department. His M.S. in Geotechnical Engineering from Middle East Technical University (METU, Türkiye) focused on the spatial probabilistic evaluation of sea bottom soil properties and its effect on foundation design. The topics of his Ph.D. at the Norwegian National University of Science and Technology (NTNU, Norway) mainly covered physical-based modeling of landslides over large scales, climate change impact on landslide susceptibility, and IoT-based monitoring of landslides and early warning model strategies.

Marianna Pirone

Marianna Pirone, Ph.D in Geotechnical Engineering at University of Naples 'Federico II', associate professor of Geotechnics at University of Naples 'Federico II', teaching in the M.Sc. course in Building Engineering. The research themes concern: unsaturated soil mechanics; field monitoring of slopes; numerical modelling of unsaturated and saturated soil slopes and earth embankments; slope stabilising piles and drainage for slope stabilization. Recently, she deals with the development of prototypes for the measurement of the factors predisposing the flowslide triggering.

Marios Angelopoulos

Dr. Constantinos Marios Angelopoulos is Associate Professor in Networked and Sensing Systems at Bournemouth University (UK). Previously, he was with University of Geneva (CH) under the prestigious Swiss Government Excellence Scholarship for Foreign Researchers. At BU, he has established and leads the BU IoT Lab and is a founding member of the Future & Complex Networks (FlexNet) Research Group. He is also the founding Programme Leader of three master courses in the area of Internet of Things. Since 2018, Marios serves at the International Telecommunication Union (ITU-T) as Associate Rapporteur of Question 5 "Research and emerging technologies, terminology and definitions" in Study Group 20: Internet of Things (IoT) and Smart Cities and Communities (SC&C) and as the Liaison co-Rapporteur of SG20 to the Standardization Committee for Vocabulary (SCV). His research on Crowdsourced Systems has led to the ITU-T Recommendation Y.4205 "Requirements and Functional Architecture of IoT-related Crowdsourced Systems". He has co-authored more than 50 academic publications and has served in the committees of several highly-esteemed international Journals and Conferences in his area of expertise (such as IEEE ToN, Elsevier's ComNet, ComCom, Ad-Hoc Nets, IEEE ICDCS, IEEE DCOSS, IEEE ICC, ACM MSWiM, etc). He has been involved in several R&D projects at European and National level.