



WORKSHOP ON

# Landslide Hazard Assessment

May 14<sup>th</sup>, 2024

- University of Padova, Italy.
- University of Bologna, Italy.
- University of Sejong, Korea.

Room 1E: Department of Geosciences, Via Gradenigo 6, Padova.

## Programme

9:00 – 9:30	<p><b>Welcome Address</b></p> <ul style="list-style-type: none"> <li>➤ <b>Filippo Catani</b> – Workshop intro with a brief on the main research topics at the Machine Intelligence and Slope Stability Lab</li> </ul>
9:30 – 11:00	<p><b>Session 1: Machine Intelligence for landslide susceptibility</b></p> <ul style="list-style-type: none"> <li>➤ <b>Sansar Raj Meena</b> - Deep Learning of optical data for Automated Landslide Mapping and Susceptibility Assessment.</li> <li>➤ <b>Jongchan Oh</b> - Landslide susceptibility analysis using CNN and clustering based sampling.</li> <li>➤ <b>Q&amp;A</b></li> </ul>
11:00 – 11:30	<p><b>Short Break</b></p>
11:30 – 13:00	<p><b>Session 2: Landslides in a changing climate</b></p> <ul style="list-style-type: none"> <li>➤ <b>Hyuck-Jin Park</b> - Assessment of temporal probability for rainfall induced landslides considering climate change impacts.</li> <li>➤ <b>Nicola Dal Seno</b> - Comparative analysis of conventional and machine learning techniques for rainfall threshold evaluation under complex geological conditions.</li> <li>➤ <b>Ascanio Rosi</b> - Spatiotemporal landslide forecasting using learning models.</li> <li>➤ <b>Q&amp;A</b></li> </ul>
13:00 – 14:30	<p><b>Lunch Break</b></p>
14:30 – 16:00	<p><b>Session 3: SAR for landslide investigation</b></p> <ul style="list-style-type: none"> <li>➤ <b>Alessandro Simoni</b> - Detection of active landslides through InSAR, strengths and limitations.</li> <li>➤ <b>Lorenzo Nava</b> - Deep Learning for All-Weather Landslide Rapid Assessment and Prediction.</li> <li>➤ <b>Yoon Taek Jung</b> - Sub-canopy topography estimation using polarimetric SAR interferometry.</li> <li>➤ <b>Q&amp;A</b></li> </ul>
16:00 – 16:30	<p><b>Short Break</b></p>
16:30 – 17:00	<ul style="list-style-type: none"> <li>➤ <b>Alessandro Zuccarini</b> - Estimating the hydrograph of a debris flow event through low-cost field camera monitoring and Digital Particle Image Velocimetry</li> <li>➤ <b>Q&amp;A</b></li> </ul>
17:00 – 17:15	<p><b>Concluding Remarks</b></p> <ul style="list-style-type: none"> <li>➤ <b>Filippo Catani</b> - Professor, University of Padova.</li> </ul>