



TCS AH WORKSHOP

'New equipment, Technical Solutions and case histories in monitoring Anthropogenic Hazards'

24 September 2026

Workshop is organised on 24.09.2026 in connection with EPOS AH TCS Consortium Board meeting in Oulu,
22-23.09.2026

Place: Linnanmaa Campus of the University of Oulu, auditorium HR144

Information for visitors: <https://www.oulu.fi/en/university/campuses>

9:00 - 13:00 Morning Session

9:00-9:10 Saija Luukkanen, Head of Oulu Mining School, Welcome words

9:10 -10:30 Session 1. Anthropogenic Hazard: Case histories

Convener: Elena Kozlovskaya

9:10 Kade Keranen, Cornell University, USA. *Induced Seismicity in the United States: A Case Study of M5+ Earthquakes in Oklahoma and Texas*

9:30 Jean Schmittbuhl, University of Strasbourg, France. *The December 2025 sequence of induced seismicity at the Rittershoffen geothermal site.*

9:50 Chhotu Kumar Keshri, Björn Lund, Savka Dineva, presenter Chhotu Kumar Keshri
Reliability of Stress Inversion in mining environment – correlation with in-situ stress cell data

10:10 Yang Zou, Nicola Piana Agostinetti, Savka Dineva, Ping Zhang, presenter Yang Zou
Field-Scale Relationship Between Seismic Velocity Changes and Excavation-Induced Stress Redistribution in a Deep Underground Mine

10:30 Coffee break, discussions

11:00-13:00 Session 2. New equipment and technical solutions

Convener: Agnieszka Mtupa-Ndiaye

11:00 Nicola Piana Agostinetti, Dipartimento di Scienze dell' Ambiente e della Terra Università di Milano Bicocca - *Monitoring (induced) geophysical processes using Distributed Acoustic Sensing: case studies from Italy*

11:20 Gilberto Saccorotti, INGV *DAS monitoring of an offshore CCS project.*

11:40 Raul Mollehuara Canales, University of Oulu, Nikita Afonin, GTK (presenter). *Digitalisation of applied geophysics for monitoring purposes - Lessons learned from HE Mine.io project*

12:00 Michal Malinowski, Geological Survey of Finland (GTK). *Active seismics with DAS: GTK experience (remote).*

12:20 Marko Holma, Muon Solutions Ltd. , Finland. *Borehole Muography and DAS: Opportunities for Complementary Subsurface Monitoring*

12:40 Derrick Chambers, Jannes Kinscher. French National Institute for Industrial Environment and Risks (INERIS). *Operational Distributed Fiber-Optic Sensing at a European Limestone Mine.*

Discussion

13:00-14:00 Lunch
Visiting Oulu Mining School Research Centre

14:00 - 18:00 Afternoon Session

Gilberto Saccorotti, Nicola Piana Agostinetti, Derrick Chambers: *DAS for monitoring anthropogenic activities: demonstrations of web-based tools for data analysis.*

Participants are asked to have own personal computers