THEMED SESSION

Balancing Energy Demand with Seismic Safety

29 June – 2 July 2026 | Chania, Greece

ORGANIZERS

Alexandros Savvaidis
UT Austin, USA

Iason Grigoratos
ETH Zurich, Switzerland

Annemarie Muntendam-Bos
TU Delft / SOdM, Netherlands

DESCRIPTION

As the world's energy needs continue to evolve, new frontiers in energy exploration and production will demand unconventional solutions. These solutions may come with increased induced seismic hazard and risk levels. Activities related to energy production have already triggered felt (and in some cases damaging) earthquakes. Notable examples include hydraulic fracturing, wastewater disposal, geothermal systems, coal mining, carbon storage, hydrocarbon exploration and hydropower dams. Induced earthquakes pose risks to public safety and infrastructure while generating community opposition and legal challenges that can halt projects entirely.

This session aims to highlight practical strategies to mitigate induced seismicity risks without constraining our ability to harness Earth's energy resources. Topics may include:

- Advanced geophysical monitoring techniques
- Identification methods for induced seismicity
- Seismic hazard assessment and mitigation
- Proactive traffic light protocols and operational controls
- Engineering standards for infrastructure in induced seismicity zones
- Risk assessment tailored to insurance coverage
- Regulatory frameworks comparing energy security benefits with seismic risk costs
- Legal liability and risk transfer mechanisms
- Community engagement strategies to maintain social license

We invite contributions from seismologists, engineers, operators, regulators, insurers, and legal experts.

ABSTRACT SUBMISSION DEADLINE
10 November 2025

MANUSCRIPT SUBMISSION DEADLINE
2 February 2026