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Energy Approach in Earthquake-Induced Soil Liquefaction for a Sustainable and Resilient Society

Guest Editor:

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Deadline for manuscript submissions:

4 July 2024



Original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Liquefaction case histories and their interpretation in terms of energy.
- Stress-based versus energy-based liquefaction evaluation compared with actual performance during widely varied earthquake motions.
- Lab tests results on pore pressure build-up, induced shear strain, volumetric strain and other design parameters, interpreted in terms of energy.
- Energy-based liquefaction evaluation versus stressbased evaluation, compared with case histories and model tests.
- Effects of soil type, effective overburden and initial shear stress on energy capacity for liquefaction.
- Liquefaction mitigation measures interpreted in light of energy capacity.
- In situ test parameters versus energy capacity for energy-based liquefaction evaluation.
- How energy demand is compared with energy capacity for liquefaction evaluation with/without numerical analyses.
- Recommendations for design codes for the EBM and case studies.
- Liquefaction-induced seismic base isolation interpreted in terms of energy demand and capacity.

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