# Special Issue

# Earthquake Engineering: Geological Impacts and Disaster Assessment

## Message from the Guest Editor

Destructive earthquakes and disasters reveal the ability of human socioeconomic systems to handle infrastructural damage, demonstrating why the concerns of site effects and disaster assessments in seismic-activity-prone regions should be considered. This Special Issue aims to highlight geological impacts and improve disaster assessment by integrating scientific knowledge, engineering expertise, and socio-economic considerations. It encompasses modeling techniques and analyzes various aspects, i.e., seismic hazard assessment, landslide and liquefaction triggered by seismic motion, structural damage identification, site response analysis, the simulation of ground rupture, subsurface characterization, disaster risks, loss estimation, sensitivity analysis, probability assessment, and frequency content analysis. The aim of this Special Issue is to employ pioneer practical and modern computational approaches on the topics mentioned above via artificial intelligence, numerical techniques, agent-based modeling, data fusion (satellite-based data), and sensor networks, etc., for the improved prediction and mitigation of earthquake-related hazards.

## Guest Editor

Dr. Abbas Abbaszadeh Shahri
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## Deadline for manuscript submissions

closed (31 December 2025)

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## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Editor-in-Chief

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