



Earthquake Engineering Group
Civil Engineering Department
KN Toosi University of Technology

Technische Universität München



Chair of Structural Mechanics

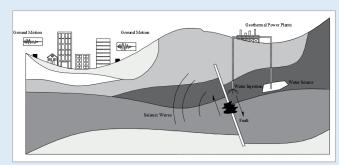
Department of Civil, Geo and Environmental Engineering

Technical University of Munich

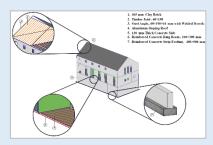
Joint project title:

SEISMIC RISK ASSESSMENT OF A MASONRY BUILDING DUE TO THE GEOTHERMAL POWER PLANT (GPP) EARTHQUAKES

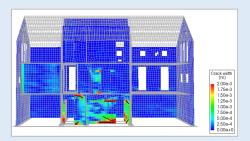
The main goal of this joint project is to evaluate the seismic risk imposed on masonry buildings, as a vulnerable type of building, due to the geothermal power plants operation considering both structural damage as well as resident comfort.



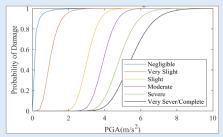
GPP-induced earthquake mechanism



Building model



Crack patterns in GPP earthquakes



Developed fragility curves

Project Outcomes

- Development of a probabilistic model for the simulation of GPP-induced earthquakes.
- Development of a probabilistic GMPE for the GPP-induced earthquakes.
- Proposing the seismic risk assessment procedure for the masonry buildings under GPP earthquakes.
- Four papers are submitted for the peer review in the high level journals.



Dr. Ali Khansefid Assistant Prof. at KNTU Visiting Scholar at TUM



Dr. Gerhard Muller Prof. at TUM

TUM TIMES HIGHER EDUCATION RANKING: 38TH