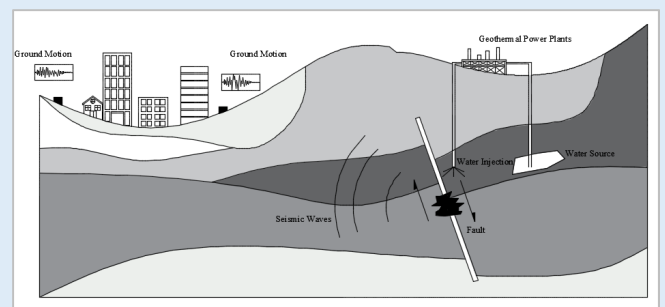


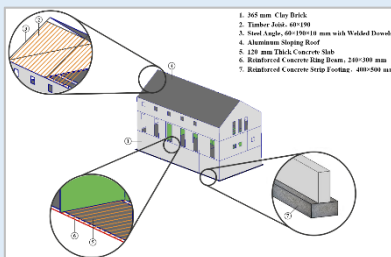
Joint project title:

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

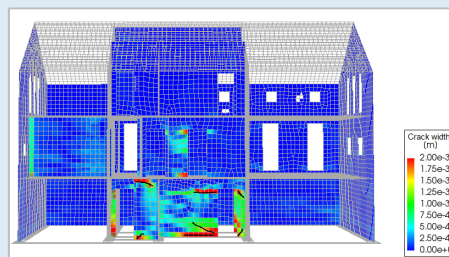
The main goal of this joint project is to evaluate the seismic risk imposed on masonry buildings, as a vulnerable type of building, due to the geothermal power plants operation considering both structural damage as well as resident comfort.



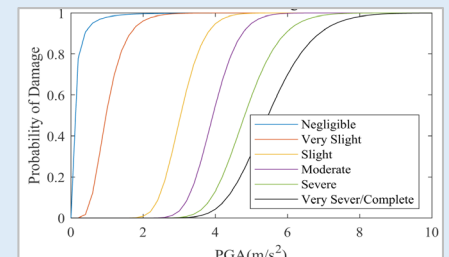
GPP-induced earthquake mechanism



Building model



Crack patterns in GPP earthquakes



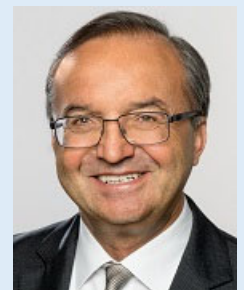
Developed fragility curves

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.



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Assistant Prof. at KNTU
Visiting Scholar at TUM



Dr. Gerhard Muller
Prof. at TUM

TUM TIMES HIGHER EDUCATION RANKING: 38TH