

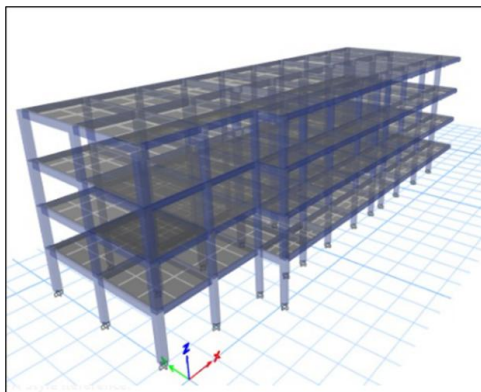
Seismic Vulnerability Assessment of Non-seismically Detailed RC Frame Buildings in Pakistan

Introduction

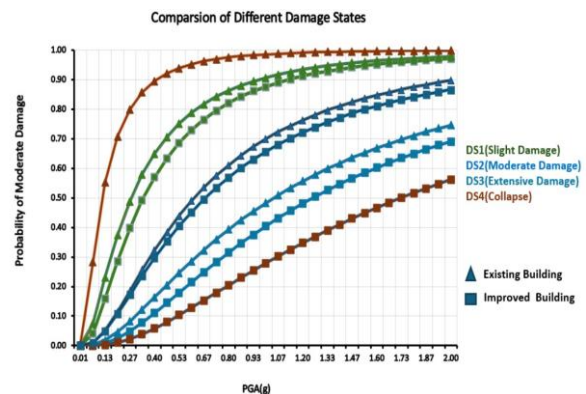
The seismic vulnerability of typical reinforced concrete (RC) frame buildings in Pakistan is a pressing concern due to their poor confinement of beams and columns, which renders them susceptible to damage during earthquakes. This research project aims to conduct a comprehensive seismic vulnerability assessment by employing fragility analysis. Specifically, it focuses on existing buildings in Pakistan with inadequate seismic detailing.

Industrial Applications

- Identifying the need for retrofitting of vulnerable buildings in earthquake prone regions.
- Fragility curves are used in loss assessment (casualties, repair costs, insurance premium)
- Mitigating Adverse Effects of Earthquakes.
- Reducing Physical Damage.
- Mitigating the Economic Impact of Future Seismic Events.
- Promoting Sustainable Development.



3D view of case study building Buildings



Fragility curves for existing & improved