

PEER 2023 Annual Meeting

Panel Discussion

Friday August 25, 2023 3:30 – 5:00 PM

Use of AI in Earthquake Engineering



what are possible AI applications in earthquake engineering → Default (GPT-3.5)

what are possible flaws of AI applications in earthquake engineering → Default (GPT-3.5)

Using AI, how can the synergy between PEER experimental facilities & instrumentation be enhanced? & what related potential testbeds to be considered for future grand challenges.

Other questions I posed to ChatGPT 3.5:

All responses were generalities

- May be appropriate, given lack of specifics
- Avoided liability
- Occasionally used the personal pronoun (*me*)

which is the safer two story building in a US earthquake - a wood frame house or an unreinforced masonry building?

how many pipes will break in the Richmond district of San Francisco in a ... San Andreas fault?

1. While
2. 1. Dat
3. 2. Bias
4. 3. Unc
5. 4. Inte
6. 5. Gen
7. 6. Lim
8. 7. Con
9. 8. Ethi
10. 9. Cyb
10. 10. Ov

1. Data Ir
2. Real-ti
3. Predict
4. Sensor
5. Autom
6. Data-D
7. Simula
- a. Resilie
- b. Urban
- c. Subsur
- d. Tsunar
- e. Seismi
- f. Post-Ea



PLENARY 8: Panel Discussion on Use of AI in Earthquake Engineering and Open Mic
Moderator - Charles Scawthorn, Visiting Scholar, PEER

- **Opening Remarks**
- **Deep-learning-based Seismic Risk Assessment and Retrofitting of Road Networks,**
Jack Baker, Stanford
- **Assessing Building Damage in Turkey and Syria using AI and Satellite Imagery,**
Ritwik Gupta, UCB
- **Bridge Rapid Assessment Center for Extreme Events, BRACE2,**
Khalid Mosalam & Claudio Perez, UCB
- **Open Mic Discussion**
- **Closing Remarks,**
Tarek Zohdi, Associate Dean, COE, UCB