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Postdoctoral Fellow

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I am a geologist with a strong interest in observing nature and exploring the long-term evolution of landscapes and seismogenic structures over timescales ranging from hundreds to tens of thousands of years. By integrating geological and geophysical datasets, I aim to better understand the tectonic and seismic processes that shape active margins.

[Research Interests]

Earthquake geology (Seismogenic Structure), Tectonic geomorphology, Neotectonics

[Affiliations]

Earthquake-Disaster and Risk Evaluation and Management Center (E-DREaM),
National Central University, Taoyuan, Taiwan.

Institute of Earth Sciences, Academia Sinica, Nangang, Taipei, Taiwan.

[Education]

Ph.D., Department of Geosciences, National Taiwan University, Taiwan, 2025.

M.S., Department of Geosciences, National Taiwan University, Taiwan, 2016.

B.S., Department of Geosciences, National Taiwan University, Taiwan, 2013.

[Publications]

Manuscript in preparation

Chen, C. H., & Shyu, J. B. H. Long-Term Slip Rates and Earthquake Recurrence Intervals of Offshore Seismogenic Structures from the Taiwan Earthquake Model (TEM) Project.

Gao, J.-C., Kao, J.-C., Chan, C.-H., Chuang, R. Y., **Chen, C.-H.**, Shyu, J. B. H., Ching, K.-E., Wang, Y., & Ma, K.-F. Probabilistic Seismic Hazard Assessment for Taiwan: Updates and Improvements in TEM PSHA2025.

Published works

Chen, C. H., & Shyu, J. B. H. (2025). Seismogenic Structures Offshore Taiwan and Their Earthquake Potential from the Taiwan Earthquake Model (TEM) Project. Bull. Seismol. Soc. Am. XX, 1–26, doi: 10.1785/0120250009.

- Chen, C.-H.** (2025). Offshore seismogenic structure database in Taiwan (Ph.D. thesis). Department of Geosciences, National Taiwan University. 242. (in Chinese with English abstract)
- Chen, C. H.**, Shyu, J. B. H., Willett, S. D., & Chen, C. Y. (2023). Structural control on drainage pattern development of the western Taiwan orogenic wedge. *Earth Surface Processes and Landforms*, 1-15. Doi: 10.1002/esp.5590.
- Shyu, J. B. H., Yin, Y. H., **Chen, C. H.**, Chuang, Y. R., & Liu, S. C. (2020). Updates to the on-land seismogenic structure source database by the Taiwan Earthquake Model (TEM) project for seismic hazard analysis of Taiwan. *Terr Atmos Ocean Sci*, 31(4), 469. doi: 10.3319/TAO.2020.06.08.01.
- Chen, C.-H.** (2016). Dynamic landscape evolution of the Taiwan orogen from fluvial channel morphology (master's thesis). Department of Geosciences, National Taiwan University. 226. (in Chinese with English abstract)

[Awards & Honors]

- 2025 – JpGU Annual Meeting. The Offshore Seismogenic Structure Database in Northeast Taiwan — Outstanding Student Presentation Award (**OSPA**).
- 2025 – Young Scholars Forum. Spatial Distribution and Slip Rates of Seismogenic Structures Offshore Northeastern Taiwan — **Best Presentation Award**.
- 2024 – Annual Meeting of the Geological Society located in Taipei. **Tsai Yi-Ben Graduate Student Scholarship**.
- 2024 – Annual Meeting of the Geological Society located in Taipei. Establishing an Offshore Seismogenic Structure Database for Taiwan — **Outstanding Presentation Award**.
- 2023 – Annual Meeting of the Geological Society located in Taipei. Mapping and Activity Assessment of Offshore Seismogenic Structures in Taiwan — **Honorable Mention**.
- 2019 – Annual Meeting of the Geological Society located in Taipei. Fluvial Geomorphic Evolution of the Northern Hsuehshan Range, Taiwan — **Honorable Mention**.
- 2015 – Annual Meeting of the Geological Society located in Taipei. Fluvial Landscape Evolution in the Foothills Belt, Western Taiwan — **Outstanding Presentation Award**.
- 2014 – Young Scholars Forum. Landscape Evolution of the Northern Hsuehshan Range from River Geomorphic Indices — **Best Presentation Award**.
- 2014 – Annual Meeting of the Geological Society located in Taipei. Investigating the Geomorphic Evolution of the Hsuehshan Range, Taiwan, Using χ River Profiles — **Outstanding Presentation Award**.