**Mengting Chen**

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T: 405-714-2756

**Education**

**Doctor of Philosophy — Civil Engineering (Field:** Geotechnical Engineering**)**   **Expected, Spring 2025**

Oklahoma State University, Oklahoma, USA

**Master of Science — Civil Engineering (Field:** Geotechnical Engineering**) December 2017** China University of Geosciences (Wuhan), China

*Thesis:Shear strength of slip zone soil and slope analysis research of Outang landslide in Fengjie*

**Bachelor of Science — Civil Engineering July 2013**

China University of Geosciences (Wuhan), China

**Research & Work Experience**

**Graduate Research Assistant Oklahoma State University, OK**

**Research Project-01 (2022-2023):** *Socially Sustainable Solutions for Water, Carbon, and Infrastructure Resilience in Oklahoma (S3OK) project (NSF Award No. OIA-1946093).*

Responsibilities:

* Use machining learning (supervised classification) to process the InSAR satellite image to monitor the flooring event over the Litter Watershed area (urban area) in Sustainable Water and Energy Infrastructure (SI) group

**Research Project-02 (2021-2022):** *StableSoil Chemical Additive as Stabilizer to Reduce Swelling-Shrinkage Potential of Expansive Soils Project (StableSoil LLC, Waco, Texas).*

Responsivities:

* Design laboratory matrix
* Conduct laboratory tests (soil tests, XRD, SEM)
* Data Analysis and interpretation
* Write final report

**Research Project-03 (2018-2019):** *Investigation of Slag-Cement Effects on High Sulfate Soils in Oklahoma (ODOT 2400-18-05)*

Responsibilities:

* Conduct laboratory soil tests
* Data Analysis and interpretation
* Write monthly report

**Skills and Interests**

* **Technical Skills**: foundations design, soil mechanics, soil stabilization, GIS application; remote sensing application; spatial analysis; laborary soil test; statistics
* **Codings**: Python; R, Java; MATLAB
* **Software**: ArcGIS pro; AutoCAD; MicroStation; Settle3D; PileGroupGeostudio (SLOPE/W, SEEP/W); Flac 3D; PLAXIS; Ansys; SWMM; Agisoft Metashape (Structure from Motion software); ME Design; Adobe photoshop, Adobe AI; Adobe Pr; Microsoft Office
* **Soft Skills**: time management; teamwork; communication; problem solving; adaptability; professionalism; critical thinking; emotional interlligence; public speaking; scientific writing; cultural competence
* **Certifications**: FE exam (Oct 2024); Graduate Certification in GIS from Oklahoma State University (Aug 2024)
* **Languages**: English; Mandarin (Native)
* **Interests**: play the Guzheng (Chinese traditional instrument), volleyball, badminton; cooking, traveling, photography; creativity

**Scholarships & Awards**

* James Parcher Endowment Scholarships (2019-2021 & 2022-2025)

**Publications**

* **Chen, M.,** Schussler, C. J., Mishra D. (Under revising). “Spatiotemporal Analysis of Rainfall Erosivity in Oklahoma”. Submitted to Catena.
* **Chen, M.,** Schussler, C. J., Mishra D. (2025). “Variation in Rainfall Erosivity Estimations due to Different Regression Models and Changing Climatic Conditions.” Accepted by Geotechnical Frontiers, March 2-5, 2025, Louisville, KY USA.
* **Chen, M.,** Schussler, C. J., Mishra D. (2025). “Mapping Soil Erosion Vulnerabilities in Oklahoma's Construction Environments” Accepted by International conference on Transportation & Development, June 8-11, 2025, Glendale, Arizona, USA.
* **Chen, M.,** Al-Dakheeli, H., Puckette, J. and Bulut, R., 2021, August. Evaluation of Mineral Formation in Sulfate Bearing Soil Stabilized with Slag Cement Using XRD. In Advances in Transportation Geotechnics IV: Proceedings of the 4th International Conference on Transportation Geotechnics Volume 1 (pp. 875-883). Cham: Springer International Publishing.
* Al-Dakheeli, Hussein, Amir Javid, **Mengting Chen,** and Rifat Bulut.,2021, August. Shrinkage Curve of Treated Sulfate-Bearing Soils with GGBS. In Advances in Transportation Geotechnics IV: Proceedings of the 4th International Conference on Transportation Geotechnics Volume 1, pp. 851-859. Cham: Springer International Publishing.

**Conference Participation**

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| Conference Name | Years |
| Geotechnical Frontiers,Louisville, KY(PowerPoint Presentation) | March 2-5, 2025 |
| NHERI Computational Symposium, Los Angeles, CA | February 5-7, 2025 |
| International Conference on Transportation and Development (ICTD), Austin, TX (Poster presentation) | June 14-17, 2023 |
| International Conference on Transportation and Development (ICTD), Glendale, AZ (Poster - PowerPoint Presentation) | June 8-11, 2025 |
| International Conference on Transportation Geotechnics (ICTG), online (PowerPoint Presentation) | May 23-26, 2021 |
| Transportation Research Board Annual Meeting (poster presentation) | January 4-9, 2025 |