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## EDUCATION

- Virginia Polytechnic Institute and State University, Ph.D., Civil Engineering with focus in Geotechnical Engineering, Aug. 2015
- California State University, Fullerton (CSUF), M.S., Civil Engineering with emphasis in Geotechnical Engineering, May 2012
- CSUF, B.S., Civil Engineering with Magna Cum Laude Honors, May 2011
- CSUF, B.A., Applied Mathematics with Magna Cum Laude Honors, May 2011

## SELECTED PROFESSIONAL EXPERIENCE

- Assistant Professor, CCEE, Iowa State University, Aug. 2021 – Present
- Adjunct Faculty, CCEE, North Dakota State University, Aug. 2021 – Present
- Assistant Professor, CCEE, North Dakota State University, Aug. 2018 – Aug. 2021
- Assistant Professor, Civil and Environmental Engineering (CEE), CSUF, Aug. 2015 – Aug. 2018

## SELECTED RESEARCH PROJECTS

**Total requested: \$14.7 million; Total pending: \$4.7 million; Total funded: \$3.7 million**

- Investigators: **Ajmera, B.**, and Crary, S. L., Title: Research Experiences for Teachers: Civil Engineering Instruction for Secondary Education. Sponsor: National Science Foundation, Total Funding: \$540,649, Role: PI
- Investigators: **Ajmera, B.**, Title: Addressing Geotechnical Issues Triggered by Climate Change, Sponsor: ISU College of Engineering, Total Funding: \$18,500, Role: PI
- Investigators: **Ajmera, B.**, Rutherford, C., Poplin, A., and Emery, A., Title: Game Design Based Learning to Improve Engagement, Achievement and Motivation Among Engineering Undergraduates, Sponsor: Iowa Space Grant Consortium, Total Funding: \$20,952, Role: PI

## SELECTED PUBLICATIONS

**Total: 219 products, 21 invited lectures and over 150 presentations**

- Tiwari, B. and **Ajmera, B.** "Advancements in Shear Strength Interpretation, Testing, and Use for Landslides Analysis," *Progress in Landslide Research and Technology* (Accepted-In Press).
- Emami Ahari, H. and **Ajmera, B.** (2023). "Development of Temperature-Controlled Direct Shear Box," *ASTM J. of Testing & Eval.*, 51 (6).

- **Ajmera, B.**, Daigh, A. L. M., and Upadhaya, K. R. (2023). "Statistical Study of the Geology, Topography, and Pore Fluid Salinity Controls on the Large Slope Failures Observed in North Dakota," *GSP* 338, 491-499.
- **Ajmera, B.**, Upadhaya, K. R., and Daigh, A. L. M. (2021). "Slope Failures in North Dakota: Influence of Geology, Topography and Salt Concentration in Pore Fluid," *GSP* 325, 197-205.
- Tiwari, B., **Ajmera, B.**, Gonzalez, A. and Sonbol, H. (2020). "Impact of Wildfire on Triggering Mudslides – A Case Study of 2018 Montecito Debris Flows," *GSP* 316, 40-49.
- **Ajmera, B.** and Tiwari, B. (2020). "Recent Advances in the Methods of Slope Stability and Deformation Analyses," *Understanding and Reducing Landslide Disaster Risk. WLF2020*, 4, 81-108. (Oldrich Hungr Award Paper)
- Tiwari, B. and **Ajmera, B.** (2020). "Keynote Lecture – Recent Developments in the Evaluation and Application of Residual and Fully Softened Shear Strengths for the Stability Analyses of Landslides," *Understanding and Reducing Landslide Disaster Risk. WLF2020*, 4, 11-45.
- **Ajmera, B.**, Brandon, T., and Tiwari, B. (2019). "Characterization of the Reduction in Undrained Shear Strength in Fine-Grained Soils due to Cyclic Loading," *J. Geotech. Geoenviron. Eng.*, 145 (5), 04019017 1-10. (Awarded Collingwood Prize and Thomas A. Middlebrooks Award)
- Tiwari, B., **Ajmera, B.**, Khalid, M., Donyanavard, S., and Chavez, R. (2018). "Influence of Slope Density on the Stability and Deformation of Clayey Slopes," *GSP* 297, 293-301.
- Tiwari, B., Pradel, D., **Ajmera, B.**, Yamashiro, B., and Diwakar, K. (2018) "Landslide Movement at Lokanthali during the 2015 Earthquake in Gorkha, Nepal," *J. Geotech. Geoenviron. Eng.*, 144(3), 05018001 1-12.
- **Ajmera, B.**, Brandon, T., and Tiwari, B. (2017) "Influence of Index Properties on Shape of Cyclic Strength Curve for Clay-Silt Mixtures," *Soil Dyn. and Eq. Eng.*, 102, 46-55.
- Tiwari, B., **Ajmera, B.**, and Dhital, S. (2017) "Characteristics of Moderate-to Large-Scale Landslides Triggered by the  $M_w$  7.8 Gorkha Earthquake and Its Aftershocks," *Landslides*, 14 (4), 1297-1318.

## SELECTED PROFESSIONAL SERVICE

### Total: 109 activities and active reviewer for 12 journals

- Editor, *Landslides*, International Consortium on Landslides, since Oct. 2015
- Editor, *Geoenvironmental Disasters*, International Consortium on Geo-disaster Reduction, since Jan. 2022
- Standing Editor, *Progress in Landslide Research and Technology*, ICL, since Apr. 2021
- Vice President for the Americas, International Consortium on Geo-disaster Reduction, since Oct. 2022
- Councilor, Engineering Division, CUR, since June 2016
- Director, National GeoChallenge Student Competitions, Student Participation Committee, ASCE G-I, since July 2021
- G-I Liaison, Younger Member Presidential Group, International Society of Soil Mechanics and Geotechnical Engineering, since June 2020

#### **GRADUATE ADVISORS AND POSTDOCTORAL SPONSORS/ THESIS ADVISOR AND POSTGRADUATE-SCHOLAR SPONSOR**

- Supervised or co-supervised 38 graduate students (7 ongoing; 34% from underrepresented minorities (URMs), 22 undergraduate students (3 ongoing; 55% URMs), and 68 summer researchers (74% URMs)

#### **SELECTED AWARDS AND RECOGNITIONS**

**Total: 49 awards; 22 for research, 5 for teaching, 5 for service, and 16 for other activities**

- Edmund Friedman Young Engineer Award for Professional Achievement, American Society of Civil Engineers, Oct. 2022
- Early-Career Undergraduate Research Mentoring Award, Council on Undergraduate Research Engineering Division, June 2022
- Oldrich Hungr Award, International Consortium on Landslides, Nov. 2021
- Embankments, Dams and Slopes (EDS) Technical Committee Outstanding Young Member Award, ASCE Geo-Institute, Aug. 2020
- Thomas A. Middlebrooks Award, ASCE G-I, July 2020
- Collingwood Prize, ASCE, May 2020
- Outstanding Educator Award, Orange County Engineering Council, Feb. 2018