

List of Funded External Grants of CE faculty (AY 2020-2021)

1. **Kenneth Lamb (PI)** collocated with Carrie Guerts on a proposal to fund the Peer Leader and Leadership Fellows Program. Al-Khatib Family Foundation **\$40k Philanthropic donation.**
2. **Xinakai (PI)**, 007020, CT#07A4388: Environmental Impact Evaluation & Open Data Systems (ODS) Development for I-210 Connected Corridor (CC) Pilot Project (NCT), Caltrans, 2021-2022, **\$104,940**
3. **Yongping Zhang (PI), Wen Cheng (Co-PI):** "Enhancing Older Adults' Mobility in Active Living and Tiered Living Communities", SJSU Research Foundation, State of California, ongoing, Amount: **\$75,000**, Awarded (8/2021-6/2022).
4. **Wen Cheng (PI), Yongping Zhang (Co-PI):** Administration of the Dwight David Eisenhower Transportation Fellowship Program (DDETFP) Local Competition, FHWA (6/2021-5/2022, **\$50,000**)
5. **Wen Cheng (PI), Yongping Zhang & Xinkai Wu (Co-PI):** Co-PI: Administration of the Dwight David Eisenhower Transportation Fellowship Program (DDETFP) Local Competition, FHWA (6/2020-5/2021, **\$50,000**)
6. **Wen Cheng (PI), Yongping Zhang (Co-PI):** Comprehensive Evaluation of Crowdsourcing Non-motorist Count Data, CSUTC SB1 Program (8/2020-7/2021, **\$75,000.00**).
7. **Wen Cheng (PI)**, California Statewide Traffic Safety Ranking via Empirical Bayes Method, USDOT/National Highway Traffic Safety Administration (10/2020-9/2021), **\$275,000.00**
8. **Monica Palomo (Co-PI)** got additional funding for this academic year (Amount of Award: \$18,500.00, additional Funding Amount for this year: **\$5,000.00**) for an on-going project. Project is a NSF IRES titled. US-Brazil Engineering Collaboration with San Diego State Research Foundation/National Science Foundation.
9. **Ghada Gad (PI)**, NCHRP 25-03 Managing Enhanced Risk in the Mega Project Era, National Cooperative Highway Research Program (NCHRP) (**Total: \$150,000**, 5/13/2020 through 9/15/2021)
10. **Ghada Gad (Co-PI)**, ACRP 09-20 Quantifying the Impacts of Delayed Maintenance of Airport Assets", Airport Cooperative Highway Research Program (ACRP) (**Total: \$300,000**, 1/15/2021 through 7/15/2022)
11. **Ghada Gad (Co-PI)**, NCHRP 25-06 Legal Issues and Strategies for Best-Value Procurement for Highway Construction, National Cooperative Highway Research Program (NCHRP) - (**Total: \$100,000**, 9/15/2021 through 9/15/2022)
12. **Ghada Gad (Consultant)**, NCHRP 10-99 Framework for Implementing Constructability Across the Entire Project Development Process: NEPA to Final Design (**Total: \$450,000**, 8/15/2019 through 9/1/2021)
13. **Ali Sharbat (PI), (Co-PIs: Dr. Mehrad Kamalzare, Dr. Yasser Salem, Dr. Majid Sadeghi (City of LA) and Dr. John Gulliver (University of Minnesota))**. LA Country Safe Clean Water Program, Evaluation of Infiltration Testing and Design Sizing/Spacing for Stormwater Drywell Systems. **\$550K**
14. **Ali Sharbat (PI)**, Eastern Municipal Water District (EMWD), Evaluating Performance of a High Recovery CCRO MAX Pilot Study for Desalination of Local Brackish Groundwater, **\$46K**
15. **Ali Sharbat (PI)**, Metropolitan Water District (MWD) for a project entitled: Outreach Activities Aiming Disadvantaged Communities (DAC) Focused on Water Reclamation and Reuse, **\$10K**

16. **Beppe Lomiento (Co-PI): NSF "SBIR Phase II: MetaMaterial for Seismic Energy Absorption,"** \$709,140 (as Co-PI **\$117,764**) Jan 2021-Jan 2022
17. **Jeyoung Woo (Co-PI): Ohio DOT, Synthesis on Mini-roundabout Designs for Local Transportation Systems,** \$93,180 (as Co-PI **\$4,660**), 07/2019-09/2021

List of Funded Internal Grants of CE faculty (AY 2020-2021)

1. **Allan Ng (PI); Omar Mora (Co-PI);** SPICE Grant in 2020-21 for UAV LiDAR Mapping System, **\$30,000**
2. **Simeng Li (PI),** RSCA Grant (CPP), Period: 04/2021-08/2021, **\$10,000.**
3. Honggang Wang (PI), **Simeng Li (Co-PI),** SPICE Grant (CPP), Period: 06/2021-05/2022, **\$25,900,**
4. **Yongping Zhang (PI), Xinkai Wu (Co-PI):** "Integrating 3D Design with Virtual Reality for Transportation Engineering Education", SPICE Grant, Cal Poly Pomona, 2021-2022, Amount: **\$15,150**
5. **Wen Cheng (PI):** Promotion of Deep Learning and Artificial Intelligence in Campus Living Lab and Transportation Laboratory of Civil Engineering, CPP SPICE **(\$12,600.00).**
6. **Mehrad Kamalzare (PI), Ali Shafiee (Co-PI),** 2021 SPICE: Modernization of Classroom Equipment to purchase a new Ring Shear testing Machine for the Geotechnical lab. **\$23,000.**
7. **Mehrad Kamalzare (PI), Ali Shafiee (Co-PI),** 2021 CPP Curriculum Redesign Grant Cohort 3, Amount: **\$8,300**
8. **Ali Shafiee (PI), mehrad Kamalzare (Co-PI),** SPICE grant to modernize classroom equipment to purchase two new Consolidation testing Machine for the Geotechnical Engineering laboratory. **\$17,600.**
9. **Dragos Andrei (PI),** SPICE for materials lab improvements with **Dr. Vasconez**
10. **Dragos Andrei (PI),** College funding for teaching props for Geotech Eng lecture with **Dr. Kamalzare and Dr. Shafiee**
11. **Jeyoung Woo (PI):** SPICE for Revamping the Construction Estimating (CE 3140/L) Class, **\$12,164.80**
12. **Jeyoung Woo (PI):** CPP Associate Provost for Student Success. **\$4000.**
13. **Omar Mora (PI);** SPICE Grant, **\$21,331.**

Published Journal Papers of CE faculty (AY 2020-2021)

1. Joshi, N., Kalra, A., Thakur, B., **Lamb, K. W.**, & Bhandari, S. (2021). Analyzing the Effects of Short-Term Persistence and Shift in Sea Level Records along the US Coast. *Hydrology*, 8(1), 17.
2. Joshi, N.; Kalra, A.; **Lamb, K.W** (2020). Land–Ocean–Atmosphere Influences on Groundwater Variability in the South Atlantic–Gulf Region. *Hydrology* 2020, 7, 71.
3. Yashar Maktoumi, **Simeng Li**, Victor Ibeanusi, Gang Chen (2020) Evaluating Water Balance Variables under Land Use and Climate Projections in the Upper Choctawhatchee River Watershed, in Southeast US. *Water*, 12(8), 2205.
4. **Simeng Li**, Karla Duran, Saied Delagah, Joe Mouawad, Xudong Jia, Ali Sharbat (2020) Energy efficiency of staged reverse osmosis (RO) and closed circuit reverse osmosis (CCRO) desalination: a model-based comparison. *Water Supply*, 20(8), 3096-3106.
5. **Simeng Li**, Celeste Chan, Ali Sharbat, Helen Trejo, Saied Delagah (2020) Engineered Biochar Production and Its Potential Benefits in a Closed-Loop Water-Reuse Agriculture System. *Water*, 12(10), 2847.
6. Yudi Wu, Colten Brickler, **Simeng Li**, Gang Chen (2021) Synthesis of microwave-mediated biochar-hydrogel composites for enhanced water absorbency and nitrogen release. *Polymer Testing*, 93, 106996.
7. Colten Brickle, Yudi, Wu, **Simeng Li**, Aavudai Anandhi, Gang Chen (2021) Comparing Physicochemical Properties and Sorption Behaviors of Pyrolysis-Derived and Microwave-Mediated Biochar. *Sustainability*, 13(4), 2359.
8. Yudi Wu, Helen Trejo, Gang Chen, **Simeng Li** (2021) Phytoremediation of contaminants of emerging concern from soil with industrial hemp (*Cannabis sativa* L.): a review. *Environment, Development and Sustainability*, DOI: 10.1007/s10668-021-01289-0
9. Yudi Wu, **Simeng Li**, Gang Chen (2021) Impacts of mechanical and chemical factors on the water-holding capacity of polyacrylamide in sand: models and mechanisms. *Soil Research*, DOI:10.1071/SR20200
10. Chammi P. Attanayake, Ganga M. Hettiarachchi*, **Monica Palomo**, Gary M. Pierzynski, and Blanca Calderon. Phytoavailability of lead for vegetables in urban garden soils. *ACS Agricultural Science & Technology*. 2021, 1, 3, 173-181 (Article) Publication Date: April 8, 2021. DOI: 10.1021/acsagscitech.0c00068.
11. Lin, H., **Y. Zhang**, Traffic Inflow Control Problem on Urban Freeway Network for Disease Prevention, *Journal of Transportation Engineering, Part A: Systems*, 2021 <https://doi.org/10.1061/JTEPBS.0000581>
12. Shrestha, P., Davis, P., **Gad, G.** (2020). Investigation of Legal Issues in Construction-Manager-at-Risk Projects: Case Study of Airport Projects. *ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 12(3)
13. **Cheng, W.**, M. Singh[^], E. Clay[^], J. Kwong, M. Cao[^], Y. Li, A. Truong (2021). “Exploring Temporal Interactions of Crash Counts in California Using Distinct Log-linear Contingency Table Models”, *International Journal of Injury Control and Safety Promotion* (DOI: 10.1080/17457300.2021.1928231 Link: <https://doi.org/10.1080/17457300.2021.1928231>).
14. Truong, L., **O. Mora, W. Cheng**, H. Tang[^] and M. Singh[^] (2021). “Deep Learning to Detect Road Distress from Unmanned Aerial System Imagery”, *Journal of Transportation Research Record* (Link: <https://doi.org/10.1177/03611981211004973>)

15. M. Singh[^], **W. Cheng**, D. Samuelson, E. Clay[^], H. Tang[^], Li, Y. (2021). “Exploring Influence of Crash Type on Injury Severity in Crashes at Intersection”, Journal of Advances in Transportation Studies Vol. 54, p61-74, DOI: 10.53136/97912599405445.
16. M. Singh[^], **W. Cheng**, D. Samuelson, E. Clay[^], M. Cao[^] (2021). “Development of Pedestrian-and Vehicle-Related Safety Performance Functions Using Bayesian Bivariate Hierarchical Models with Mode-Specific Covariates”, Journal of Safety Research (Forthcoming)
17. **Cheng, W.**, G. Gill[^], F. Wen (2020). “Bayesian Bivariate Semiparametric Spatial Models for Ozone and PM2.5 Emissions”, Journal of Environmental Modelling and Assessment 26 (2), 237-249, (DOI: 10.1007/s10666-020-09732-8. Link: <https://rdcu.be/b7i5L>)
18. **Shah-Fairbank SC**, Castaneda JJ (2020) Hydrologic Analysis using Civil Design versus HEC-HMS on Horsethief Creek Canyon Wash, California. J Hydrogeol Hydrol Eng 9:3. doi: 10.4172/2325-9647.1000198
19. Falamaki, **A. Shafiee**, A., and Shafiee, A.H. (2021). Under and post-construction probabilistic static and seismic slope stability analysis of Barmshour Landfill, Shiraz City, Iran, Bulletin of Engineering Geology and the Environment, 80, 5451-5465.
20. **Shafiee**, A., Jalili, J., Tavakoli, H.R., and Jafari, M.K. (2021). Pore Pressure Build-Up in Aggregate-Clay Mixtures under Cyclic Loading, Accepted to be published in the Journal of Seismology and Earthquake Engineering (JSEE).
21. **J. Woo** and J. T . O’Connor, (2021), Mitigation Strategies to Prevent Engineering Design Quality Defects, ASCE Journal of Management in Engineering, 37(3).
22. **J. Woo** and J. T . O’Connor, (2020), Causal Factors for Engineering Design Defects and Their Impacts, ASCE Practice Periodical on Structural Design and Construction, 26(2).
23. McMahon, C., **Mora, O.E.** and Starek, M.J., 2021. Evaluating the Performance of sUAS Photogrammetry with PPK Positioning for Infrastructure Mapping. Drones, 5(2), p.50.
24. Truong, L.N.H., **Mora, O.E.**, **Cheng, W.**, Tang, H. and Singh, M., 2021. Deep Learning to Detect Road Distress from Unmanned Aerial System Imagery. Transportation Research Record, p.03611981211004973.
25. **Mora, O.E.**, Langford, M., Mislant, R., Josenhans, R. and Chen, J., 2020. Precision performance evaluation of RTK and RTN solutions: a case study. Journal of Spatial Science, pp.1-14.

Published Conference Proceedings /Presentations of CE faculty (AY 2020-2021)

1. D. Dardoon, **X. Wu**, **Y. Zhang** (2021), The Impact of Virtual Teaching Technologies on Transportation Education During the COVID-19 Pandemic, ASEE PSW Conference
2. X. Liang, **X. Wu**, **Y. Zhang**, etc. (2010). Investigating Correlations among Traffic Flow, Air Pollution, and Meteorological Factors at Freeway Level: A Case Study on the I-210 Freeway, TRB Conference
3. D.V. Romero, X. Liang, **X. Wu**, **Y. Zhang** (2021). Invited Student Paper: Air Quality Evaluation on I-210 Freeway Before-and-After Safer-at-Home Order during the COVID-19 Pandemic, TRB Conference.
4. Dardoon, D., **Y. Zhang**, **X. Wu**, The Impacts of Virtual Teaching Technologies on Transportation Education during the Pandemic , 2021 ASEE Pacific Southwest Conference, April 2021.

5. Lin, H., **Y. Zhang**, How Much Transportation Investment is Needed for Expected Accessibility Enhancement Goal, the ASCE International Conference on Transportation & Development (ICTD), 2020, ID 1203313
6. Nimmahnpachrin, W., and **Gad, G.** (2021). Bridge Maintenance Decision-Making Model. Proceedings of International Structural Engineering and Construction. 8(1), ISSN: 2644-108X
7. **Gad, G.** and Minchin Jr., E. R. (2021). An Analysis of Construal Practices in State Departments of Transportation under Organizational Constraints. TRB 100th Annual Meeting Conference Proceedings, 2021, Washington DC.
8. Dardoon, D., Manlla, W. and **Gad, G.** (2020). Contingency Perceptions of Traditional versus Collaborative-Based Construction Contract Clauses. Proceedings of International Structural Engineering and Construction. 7(2), ISSN: 2644-108X
9. **Palomo, Monica**; Casad, Bettina Jeanine[^]. From Face-To-Face to a Virtual Classroom in Three Days. Paper in The Proceedings of the 2021 ASEE Annual Conference, Virtual Meeting. Paper ID #34056, July 26-29, 2021.
10. Singh, M[^], **Y. Zhang**, **W. Cheng**, H. Tang[^], and E. Clay[^] (2021). Exploration of Transit Station-Oriented Active Transportation Safety Using Bivariate Spatial Models with Different Covariate Inputs, TRB 100th Annual Meeting Conference Proceedings, 2021. Washington DC. Virtual Meeting.
11. Singh, M[^], **W. Cheng**, R. Gopalakrishnan[^], B. Li[^], and M. Cao[^] (2021). Exploration of the Contributing Factors to the Walking and Biking Travel Frequency using Multi-Level Joint Models with Endogeneity, TRB 100th Annual Meeting Conference Proceedings, 2021. Washington DC. Virtual Meeting.
12. Singh, M[^], **W. Cheng**, Y. Li., D. Samuelson, E. Clay[^] (2021). Exploration of Various Spatio-temporal Interactions in Crash Frequency Models, TRB 100th Annual Meeting Conference Proceedings, 2021. Washington DC. Virtual Meeting.
13. Truong, L.[^], **O. Mora**, **W. Cheng**, H. Tang[^] and M. Singh[^] (2021). Deep Learning to Detect Road Distress from Unmanned Aerial System Imagery, TRB 100th Annual Meeting Conference Proceedings, 2021. Washington DC. Virtual Meeting.
14. Clay, E.[^], B. Li[^], **Y. Zhang**, M. Singh[^], and **W. Cheng** (2021). Exploration of COVID-19's Impact on Freeway Traffic Volume Using Distinct Bayesian Hierarchical Temporal Models, TRB 100th Annual Meeting Conference Proceedings, 2021. Washington DC. Virtual Meeting.
15. **Cheng, W.**, B. Li[^], M. Cao[^], E. Clay[^], and M. Singh[^]. (Oct. 2020) "Analysis of the Influential Factors of Students' Understanding of Professional Ethics", 2020 IEEE Frontiers in Education Annual Conference Proceedings, Uppsala, Sweden. (online setting due to Covid-19).
16. **Cheng, W.**, R. Vyas[^], R. Gopalakrishnan[^], E. Clay[^], and M. Singh[^] (Oct. 2020) "Exploring Correlation among Different Elements of Student Evaluation of Teaching", 2020 IEEE Frontiers in Education Annual Conference Proceedings, Uppsala, Sweden. (online setting due to Covid-19)
17. **Lomiento, G.**, Adzhemyan, A., Benzoni, G., Koscal, A. F., Penaflor A., Pouryaghoobi-Anzabi, S. "EXPERIMENTAL COMPARISON AND MODELING OF DOUBLE AND TRIPLE CONCAVE SEISMIC ISOLATORS", Proceedings of 17th World Conference Earthquake Engineering, Sendai, Japan, Sep. 27-Oct. 2, 2021.
18. Bonessio, N., **Lomiento, G.**, "SEISMIC METAMATERIAL FOR RESILIENT EQUIPMENT", Proceedings of 17th World Conference Earthquake Engineering, Sendai, Japan, Sep. 27-Oct. 2, 2021.

19. Aulakh, D., Salem, Y., **Lomiento, G.** "RESEARCH INTO THE DEVELOPMENT OF A RESPONSE MODIFICATION FACTOR FOR DIAGRID STRUCTURES", Proceedings of 11th International Structural Engineering and Construction Conference, Cairo, Egypt, July 26-31, 2021
20. Yazdani, Y., Wang, L., **Lomiento, G.**, Yagoub, T. "STABILITY CONSIDERATIONS FOR ELASTIC-PLASTIC PROCESSES WITH DAMAGE", Proceedings of 11th International Structural Engineering and Construction Conference, Cairo, Egypt, July 26-31, 2021
21. **Lomiento, G.**, Gershfeld, M., Enderami, A., Sutley, E., Barbosa, A., Van de Lindt, J. "Attribute-Weighted Multi-Hazard Functionality Taxonomy for Buildings", 2021 Researcher Meeting, NIST Natural Hazards Center, July 14-15, 2021.
22. **Shah-Fairbank, S. C., & Woo, J., & Lamb, K., & Cho, J.** (2021, July), Students' Teamwork Assessment based on Reflection, Peer Evaluations and Psychological Safety Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37774>
23. T. J. Tabayi and **J. Woo**, (March 2021), An Evaluation and Review of Construction Management Functions in Developing Nations, CPP 9th Annual Student Research, Scholarship, and Creative Activities (RSCA) Conference.
24. **Kamalzare, M.**, (2021). "Finite Element Analyses of Life-line Infrastructure Systems with regard to Seismic Response", Geo-Extreme 2021: Geotechnical Engineering for Extreme Events, Nov. 2021, Savannah, Georgia, USA. (Conference postponed to the end of 2021) (Proceedings under print by ASCE)
25. Judith Sheine, Kevin Von Don Wymelenberg, **Mikhail Gershfeld**, (Aug 2021), Oregon County Mass Timber Court Houses: Developing Demonstration Projects through Interdisciplinary Education, the World Conference on Timber Engineering.
26. **Dragos Andrei** and Robert Kochan, (Jan. 2021, online) Green Up pavement rehabilitation decision tool. Pavement, Roadway, and Bridge Life Cycle Assessment Conference.
27. **Shafiee, A.**, and Jalili J. (2020). Dynamic Deformation Properties of Geotextile-Reinforced Sands, 5th World Conference on Civil, Structural, and Environments Engineering (CSEE'20), Virtual Conference October 2020.