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Curriculum Vitae

David Trejo, Ph.D., P.E. (CA)
School of Civil and Construction Engineering
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Expertise and Interests

Leadership; constructability, durability, and performance of infrastructure systems; development of materials and systems for accelerated and durable construction; sustainability; evaluation of material deterioration processes and mechanisms; electrochemistry and corrosion; construction engineering of heavy civil systems; improving constructability of the built environment; service-life prediction of infrastructure systems; life-cycle modeling; design of temporary structures.

Education

- Ph.D., Department of Civil and Environmental Engineering; Construction Engineering and Management; Minors in Materials and Corrosion Science (Materials Science Department), University of California, Berkeley, December 1997.
- M.S., Department of Civil Engineering, Construction Engineering and Management, University of California, Berkeley, May 1993.
- B.S., Department of Civil Engineering, University of California, Berkeley, December 1991.

Leadership and Administrative Appointments

- *Special Assistant to the Executive Associate Dean (Facilities)*, August 2016 – June 2017.
- *Operations Manager*, Network for Earthquake Engineering Simulation (NEES) at Oregon State University, February 2014 to November 2014.
- *Interim Director*, Hinsdale Research Laboratories, School of Civil and Construction Engineering, Oregon State University, January 2013 to September 2014.
- *Acting School Head*, School of Civil and Construction Engineering, Oregon State University, November 2011 to June 2013.
- *Division Head*, Texas Transportation Institute, Constructed Facilities Division (Construction Engineering and Management, Geotechnical, and Structural Engineering Groups), College Station, Texas; May 2005 to September 2009.

Academic and Other Appointments

- *Professor and Hal D. Pritchett Endowed Chair*, School of Civil and Construction Engineering, Oregon State University, January 2010 to present.
- *Professor and Construction Education Foundation Endowed Chair*, School of Civil and Construction Engineering, Oregon State University, September 2009 to January 2010.
- *TEES Research Professor*, Texas A&M University, Dwight Look College of Engineering, September 1, 2009 to August 31, 2011.
- *Engineer Specialist*, Parsons Transportation Group, Bridge and Tunnel Division, San Francisco, California, August 2007 to July 2008 (while on sabbatical).

- *Zachry Career Development Professor I*, Texas A&M University, Zachry Department of Civil Engineering, College Station, Texas, January 2008 to August 2009.
- *Associate Professor*; Texas A&M University, Zachry Department of Civil Engineering, College Station, Texas, September 2004 to August 2009: Appointment in the Materials Science and Engineering Graduate Program (appointed 2003) and Faculty Fellow in the Historic Research Imaging Laboratory (appointed 2005).
- *Research Fellow*; National Aeronautics and Space Administration (NASA), Kennedy Space Center, FL, May 2004 to August 2005; Alternate Concrete Refractory Materials for the Launch Complex 39 Main Flame Deflector Refractory Concrete.
- *Assistant Professor*; Texas A&M University, Department of Civil Engineering, College Station, Texas, August 1998 to August 2004: Appointments in the Polymer Technology Center, Department of Mechanical Engineering (2000-2004) and in the Materials Science and Engineering Graduate program (Appointed in 2003).
- *Assistant Professor*; Michigan State University, Department of Civil and Environmental Engineering, East Lansing, Michigan, August 1997 to August 1998.
- *Assistant Engineer*; East Bay Municipal Utility District, Oakland, California, 1995 to 1997: Evaluation of reinforced and prestressed concrete structures and development of rehabilitation program.
- *Graduate Research Assistant*; Joint Program with the Department of Civil and Environmental Engineering at U.C. Berkeley, the Department of Materials Science and Mineral Engineering at U.C. Berkeley, and the Lawrence Berkeley National Laboratories, 1992 to 1997: Investigation of the effects of material microstructure on corrosion performance.
- *Engineer Assistant*; MVZ Engineering, Pinole, California, 1989 to 1991: Investigations of deteriorating concrete structures and development of work plans for rehabilitation projects.
- *Heavy Equipment Operator*; O.C. Jones & Sons, Berkeley, California, 1982 to 1989: Operated various types of heavy equipment (scrapers, dozers, loaders, etc.) on major development and infrastructure projects.

Publications

Refereed Journal and Special Publications *(*indicates student researcher)*

- Vaddey, N. P. and Trejo, D., "The Influence of Concrete Mixture Parameters and Admixed Chloride Level on Chloride Test Measurements," *In review, ACI Materials Journal*, March 2017.
- *Shakouri, M. and Trejo, D., "A Time-Variant Model of Surface Chloride Build-Up for Improved Service Life Predictions," *In review, Cement and Concrete Composites*, March 2017.
- *Setty, S. P. and Trejo, D., "Effects of Joint Surface Preparation and Curing Regime on Performance," *In review, ASCE Journal of Bridge Engineering*, June 2016.
- *Mazarei, V., Trejo, D., Ideker, J. H., and Isgor, O. B., "Synergistic Effects of ASR and Fly Ash on the Corrosion Characteristics of RC Systems," *In review, Construction and Building Materials*, March 2017.
- *Prasittisopin, L. and Trejo, D., "Influence of Mixing Variables on Characteristics of Blended Cement Systems Containing Rice Husk Ash," *In review, Advanced Concrete Technology*, 2016.

- Trejo, D. and *Hendrix, G., "The Influence of Aggregate Type and Mixture Proportions on Workability of Flowable Concrete," *In review, ACI Materials Journal,* May 2015.

74. Trejo, D., *Mazarei, V., Ideker, J. H., and Isgor, O. B., "The Influence of ASR Reactivity on Corrosion in Reinforced Concrete," *Accepted for Publication, ACI Materials Journal,* October 2016.
73. *Nielson, D. R., Trejo, D., and Barbosa, A., "Effect of High Strength Reinforcement Steel on Shear Friction Behavior," *Accepted for Publication, ASCE Journal of Bridge Engineering,* October 2016.
72. *Hendrix, G. and Trejo, D., "New Mixture Proportioning Method for Flowing Concrete Mixtures," *Accepted for Publication, ACI Materials Journal,* May 2016.
71. Barbosa, A., Trejo, D., *Nielson, D. R., "Performance of Shear Specimens Reinforced with High Strength Reinforcing Bars," *Accepted for Publication, ACI Structural Journal,* April 2016.
70. *Shakouri, M., Trejo, D., and Gardoni, P., "A Probabilistic Framework to Justify Allowable Admixed Chloride Limits in Concrete," *Construction and Building Materials,* Vol. 139, May 2017, pp. 490-500.
69. *Prasittisopin, L. and Trejo, D., "Performance Characteristics of Blended Cementitious Systems Incorporating Chemically Transformed Rice Husk Ash," *Advances in Civil Engineering Materials,* Volume 6, No. 1, 2017, pp. 17-35.
68. Trejo, D. and *Prasittisopin, L., "Effects of Mixing Variables on Early-age Characteristics of Portland Cement Systems," *ASCE Journal of Materials in Civil Engineering,* Volume 28, No. 10, October 2016.
67. Trejo, D., *Link, T.B., and Barbosa, A., "Effect of Reinforcement Grade and Ratio on Seismic Performance of RC Columns," *ACI Structural Journal,* Vol. 113, No. 5, pp. 907-916.
66. Trejo, D. and *Tibbits, C., "The Influence of SCM Type and Quantity on the Critical Chloride Threshold," *ACI SP-308—Chloride Thresholds and Limits for New Construction,* Eds. D. Tepke, D. Trejo, and B. Isgor, June 2016.
65. Barbosa, A., *Link, T.B., and Trejo, D., "Seismic Performance of High Strength Steel RC Bridge Columns," *ASCE Journal of Structural Engineering,* Volume 21, No. 2, February 2016.
64. *Chen, J. and Trejo, D., "Influence of Mixer Drum Revolution Count on Fresh and Hardened Concrete Characteristics," *ACI Materials Journal,* Vol. 113, No. 1, January 2016, pp. 25-34.
63. *Kim, Y. H. and Trejo, D., "Evaluation and Design of Large Diameter Shear Connector Systems for Full-depth Precast Panels," *ACI Structural Journal,* Vol. 112, No. 4, July-Aug. 2015, pp. 439-449.
62. Trejo, D. and *Chen, J., "Influence of Mixing Time on Fresh and Hardened Characteristics," *ACI Materials Journal,* Vol. 112, No. 6, Nov.-Dec. 2015, pp. 745-753.
61. *Prasittisopin, L. and Trejo, D., "Effects of Mixing Variables on Hardened Characteristics of Portland Cement Mortars," *ACI Materials Journal,* Volume 112, No. 3, May 2015, pp. 399-407.
60. Trejo, D. and *Prasittisopin, L., "Chemical Transformation of Rice Husk Ash Morphology," *ACI Materials Journal,* Vol. 112, No. 3, May 2015, pp. 385-392.

59. *Prasittisopin, L. and Trejo, D., "Hydration and Phase Formation of Blended Cementitious Systems Incorporating Chemically Transformed Rice Husk Ash," *Cement and Concrete Composites*, Vol. 59, March 2015, pp. 100-106.
58. *Eck, M.K., Bracci, J., Gardoni, P., and Trejo, D., "Performance of RC Columns Affected by ASR I – Accelerated Exposure and Damage," *ASCE Journal of Bridge Engineering*, Vol. 20, No. 3, March 2015.
57. *Eck, M.K., Bracci, J., Gardoni, P., and Trejo, D., "Performance of RC Columns Affected by ASR II – Experiments and Assessment," *ASCE Journal of Bridge Engineering*, Vol. 20, No. 3, March 2015.
56. *Kim, Y.H., Hueste, M.D., Trejo, D., "Flexural Behavior of High Early Strength Self-Consolidating Concrete Pretensioned Bridge Girders," *ASCE Journal of Bridge Engineering*, Vol. 20, No. 2, February 2015.
55. Huang, Q., Gardoni, P., Trejo, D., and *Pagnotta, A., "Probabilistic Model for Steel-concrete Bond Behavior in Bridge Columns Affected by Alkali Silica Reactions," Vol. 71, *Engineering Structures*, July 2014, pp. 1-11.
54. *Guo, Y., Trejo, D., and Yim, S., "Time-Variant Seismic Performance of Corroding RC Bridge Columns," *ASCE Journal of Structural Engineering*, Vol. 141, No. 6, June 2015.
53. *Pillai, R.G., Trejo, D., Gardoni, P., Hueste, M.B.D., and Reinschmidt, K.F., "Time-Variant Flexural Reliability of Post-Tensioned, Segmental, Concrete Bridges Exposed to Corrosive Environments," *ASCE Journal of Structural Engineering*, Vol. 140, No. 8, August 2014.
52. *Pillai, R.G., Reinschmidt, K.F., Trejo, D., Gardoni, P., and Hueste, M.B.D., "Predicting Residual Tensile Strength of 7-Wire Strands using that of Single Wires Exposed to Chloride Environments," *ASCE Materials Journal*, Vol. 26, No. 8, August 2014.
51. *Kim, Y. H. and Trejo, D., "Shear Transfer Mechanisms and Design Equations for Shear Connectors for Full-Depth Precast Deck Panel Systems," *ACI Structural Journal*, Vol. 111, No. 4, pp. 935-944, July 2014.
50. *Prasittisopin, L. and Trejo, D., "Characterization of Chemical Treatment Method for Rice Husk Ash Cementing Materials," *ACI Special Publication on Advances in Green Binder Systems*, SP-294CD, Ed. Neithalath, N. and Hicks, J., October 2013.
49. *Pagnotta, A., Trejo, D., and Gardoni, P., "Effects on Impact-Echo Signals Caused by Adjacent Steel Reinforcing Bars and Voids in Lap-Splice Regions: Experimental Study," ACI SP-292, SP-292—7, Eds. B. Glisic, N. Suksawang, and F. Malhas, 2013.
48. Gardoni, P. and Trejo, D., "Probabilistic Seismic Demand Models and Fragility Estimates for Reinforced Concrete Bridges with Base Isolation," *Earthquakes and Structures*, Vol. 4, No. 5, 2013.
47. Trejo, D. and Weyers, R., "Admixed Chlorides in Concrete: History, Impacts, and Standardization," *ACI Special Publication 291, Corrosion of Reinforcing Steel in Concrete–Future Direction: Hope & Schupack Corrosion Symposium CD*, Ed. M. Khan, November 2012.
46. Gardoni, P., Trejo, D., and *Kim, Y. H., "Time-variant Capacity Model for GFRP Bars Embedded in Concrete," *ASCE Journal of Engineering Mechanics*, Vol. 139, No. 10, December 2012.
45. *Kim, Y. H., Trejo, D., Hueste, M. D., "Bond Performance of High-Early Strength Self-Consolidating Concrete Pretensioned Bridge Elements," *ACI Structural Journal*, Vol. 109, No. 6, November/December 2012, pp. 755-765.

44. *Kim, Y. H., Trejo, D., Atahan, H. N., and Hueste, M. B., "Mechanical Property Prediction for High Early Strength Self-Consolidating Concrete," *ASCE Journal of Materials in Civil Engineering*, Vol. 24, No. 12, December 2012, pp. 1501-1512.
43. *Halmen, C. and Trejo, D., "Accelerating a Standard Test Method for Assessing Corrosion of Steel in Concrete," *ACI Materials Journal*, Vol. 109, No. 4, July/August 2012, pp. 421-430.
42. *Kim, Y. H., Trejo, D., Gardoni, P., "Time-variant Reliability Analysis and Flexural Design of GFRP-reinforced Bridge Decks," *ASCE Journal of Composites for Construction*, Vol. 16, No. 4, August 2012, pp. 359-370.
41. Trejo, D., Gardoni, P., and *Kim, J. J., "Long-Term Performance of GFRP Reinforcement Embedded in Concrete," *ACI Materials Journal*, November/December 2011, pp. 605-613.
40. Murphy, R. R.; Steimle, E.; Hall, M.; Lindemuth, M., Trejo, D., Hurlebaus, S., Medina-Cetina, Z., and Slocum, D., "Robot-Assisted Bridge Inspection," *Journal of Intelligent and Robotic Systems*, Vol. 64, No. 1, October 2011, pp. 77-95.
39. *Kim, Y. H., Trejo, D., Hueste, M. B. D., and *Kim, J. J., "Experimental Study on Creep and Durability of High Early Strength Self Consolidating Concrete for Precast Elements," *ACI Materials Journal*, March/April 2011, pp. 128-138.
38. *Kim, Y. H., Trejo, D., Hueste, M. D. (2010), "Characterization of High Early Strength Self-Consolidating Concrete for Design of Pretensioned Bridge Elements," *Transportation Research Record: Journal of the Transportation Research Board*, No. 2200, pp. 135-142.
37. *Pillai, R. G., Gardoni, P., Trejo, D., Hueste, M. B. D., and Reinschmidt, K. F., "Probabilistic Models for the Tensile Strength of Corroding Strands in Posttensioned, Segmental Concrete Bridges," *ASCE Journal of Materials in Civil Engineering*, Vol. 22, No. 10, pp. 967-977, October 2010.
36. Wei, S., Sanchez, M., Trejo, D., and Gillis, C., "Microbial Mediated Deterioration of Reinforced Concrete Structures," *International Biodeterioration and Biodegradation*, Elsevier, Sept. 2010, V. 64, pp. 748-754.
35. *Mander, T. J., Henley, M. D., *Scott, R. M., Head, M. H., Mander, J. B., Trejo, D., "Experimental Investigation of Full-Depth Precast Overhang Panels for Concrete Bridge Decks," *ASCE Journal of Bridge Engineering*, Vol. 15, No. 5, pp. 503-510, September/October 2010.
34. *Pillai, R. G., Hueste, M. B. D., Gardoni, P., Trejo, D., and Reinschmidt, K. F., "Time-Variant Service Reliability of Post-Tensioned, Segmental, Concrete Bridges Exposed to Corrosive Environments," *Journal of Engineering Structures*, Vol. 32, No. 9, September 2010, pp. 2596-2605.
33. *Kim, Y. H., Hueste, M. B. D., Trejo, D., and Cline, D., "Shear Characteristics and Design for High Strength Self-Consolidating Concrete, *ASCE Structural Journal*, Vol. 136, No. 8, pp. 989-1000, August 2010.
32. *Im, S. B., Hurlebaus, S., and Trejo, D., "Effective Repair Grouting Methods and Materials for Filling Voids in External Post-tensioned Tendons," *Transportation Research Record 2010*, TRB 89th Annual Meeting Compendium of Papers, January 2010.
31. *Im, S. B., Hurlebaus, S., and Trejo, D., "Inspection of Voids in External Post-tensioned Tendons," Transportation Research Record 2010, *Transportation Research Record 2010*, TRB 89th Annual Meeting Compendium of Papers, January 2010.
30. Gardoni, P., *Pillai, R.G., Hueste, M. D., Reinschmidt, K., and Trejo, D., "Probabilistic Capacity Models for Corroding Post-tensioning Strands: Calibration Using Laboratory

Results," *ASCE Journal of Engineering Mechanics*, Vol. 135, No. 9, September 2009, pp. 906-916.

29. Gardoni, P., Trejo, D., Vannucci, M., and *Bhattacharjee, C., "Probabilistic Models for the Modulus of Elasticity of Self-Consolidated Concrete: A Bayesian Approach," *ASCE Journal of Engineering Mechanics*, April 2009, Vol. 135, No. 4, pp. 295-306.
28. Trejo, D., *Pillai, R. G., Hueste, M. D., Reinschmidt, K., and Gardoni, P., "Parameters Influencing Corrosion and Tension Capacity of Post-Tensioning Strands," *ACI Materials Journal*, Vol. 106, No. 2, March/April 2009.
27. *Halmen, C., Trejo, D. and, Folliard, K., "Service-Life of Corroding Galvanized Culverts Embedded in Controlled Low-Strength Materials," *Journal of Materials in Civil Engineering*, Vol. 20, No. 5, May 2008, pp. 366-374.
26. *Halmen, C. and Trejo, D., "Measuring Chloride Concentrations for Various Cement-Based Material Systems," *ACI Materials Journal*, Vol. 104, No. 6, November/December 2007, pp. 567-574.
25. Trejo, D., *Moutassem, F., Hueste, M. B. D., *Halmen, C., Cline, D. B. H., "Influence of Environmental Exposure Conditions on Mechanical Properties of High Strength Concrete," *ACI Materials Journal*, Vol. 104, No. 6, November/December 2007, pp. 303-312.
24. *Kim, Y.H., Trejo, D., and Hueste, M.D., "Shear Characteristics of Self-Consolidating Concrete for Precast Prestressed Concrete Members," ACI SP-247, American Concrete Institute, Eds. A. Schindler, D. Trejo, and R. Barnes, October 2007.
23. Atahan, H. N.; Trejo, D.; and Hueste, M.D, "Applicability of Standard Equations for Predicting the Mechanical Properties of Self-consolidating Concrete (SCC)," ACI SP-247, American Concrete Institute, Eds. A. Schindler, D. Trejo, and R. Barnes, October 2007.
22. *Chan, C., Hover, K. C., Folliard, K. J., and Trejo, D., "Frost Durability Indexes of Segmental Retaining Wall Units," *ACI Materials Journal*, Vol. 104, No. 1, January/February 2007, pp. 23-32.
21. Trejo, D. and Reinschmidt, K., "Justifying Materials Selection for Reinforced Concrete Structures. II: – Economic Analysis," *Journal of Bridge Engineering*, January/February 2007, Vol. 12, No. 1, pp. 38-44.
20. Trejo, D. and Reinschmidt, K., "Justifying Material Selection for Reinforced Concrete Structures. I: Sensitivity Analysis," *Journal of Bridge Engineering*, January/February 2007, Vol. 12, No. 1, pp. 31-37.
19. *Du, L., Arellano, M., Folliard, K. J., Nazarian, S., and Trejo, D., "Rapid-Setting CLSM for Bridge Approach Repair," *ACI Materials Journal*, Vol. 103, No. 5, September/October 2006, pp. 312-318.
18. Reinschmidt, K. and Trejo, D., "The Economic Value of Building Faster," *ASCE Journal of Construction Engineering and Management*, July 2006, Vol. 132, No. 7, pp. 665-794.
17. *Halmen, C., Trejo, D., Folliard, K. J., and *Du, L., "Corrosion of Metallic Materials in Controlled Low Strength Materials – Part IV," *ACI Materials Journal*, Vol. 103, No. 1, January/February 2006, pp. 53-59.
16. *Halmen, C., Trejo, D., Folliard, K. J., and *Du, L., "Corrosion of Metallic Materials in Controlled Low Strength Materials – Part III," *ACI Materials Journal*, Vol. 102, No. 6, November/December 2005, pp. 429-437.

15. Trejo, D., *Halmen, C., Folliard, K. J., and *Du, L., "Corrosion of Ductile Iron Pipe in Controlled Low Strength Materials – Parts I and II," *ACI Materials Journal*, May/June 2005, Vol. 102, No. 3, pp. 192-201.
14. *Pillai, R. G. and Trejo, D., "Surface Condition Effects on Critical Chloride Threshold of Steel Reinforcement," *ACI Materials Journal*, January/February 2005, Vol. 102, No. 2, pp. 103-109.
13. Trejo, D. and Monteiro, P. J. M., "Corrosion Performance of ASTM A706 Low Alloy Reinforcing Steel," *Cement and Concrete Research*, Vol. 35, No. 3, March 2005, pp. 562-567.
12. *Du, L., Folliard, K. J., and Trejo, D., "A New Unbonded Capping Practice for Evaluating the Compressive Strength of Controlled Low-Strength Material Cylinders," *Cement, Concrete & Aggregates*, Vol. 26, No. 1, June 2004.
11. Hueste, M. B. D., *Chompreda, P., Trejo, D., Cline, D. B. H., and Keating, P. B., "Mechanical Properties of High Strength Concrete for Prestressed Members," ACI Structural Journal, V. 101, No. 4, July/August 2004.
10. Trejo, D. and *Pillai, R., "Accelerated Chloride Threshold Testing: Part II – Corrosion Resistant Reinforcement," *ACI Materials Journal*, Vol. 101, No. 1, pp. 57-64, January/February 2004.
9. Trejo, D. and *Pillai, R., "Accelerated Chloride Threshold Testing: Part I - ASTM A615 and A706 Reinforcement," *ACI Materials Journal*, Vol. 100, No. 6, pp. 519-527, November/December 2003.
8. Trejo, D., Folliard, K. J., and *Du, L., "Alternative Capping Materials for Evaluating the Compressive Strength of Controlled Low-Strength Materials," *ASCE Journal of Materials in Civil Engineering*, Vol. 15, No. 5, pp. 484-490, September/October 2003.
7. Folliard, K. J., *Du, L., and Trejo, D., "Effects of Curing Conditions on Strength Development of Controlled Low-Strength Material," *ACI Materials Journal*, Vol. 1, No. 1, pp. 79-86, January-February 2003.
6. *Du, L., Folliard, K., and Trejo, D., "Effects of Constituent Material Types and Quantities on Water Demand and Compressive Strength of Controlled Low Strength Material," *ASCE Journal of Materials in Civil Engineering*, Vol. 14, No. 6, pp. 485-495, November/December 2002.
5. Trejo, D., *Patil, S., Anderson, S., and *Cervantes, E., "Framework for Competency and Capability Assessment for Resource Allocation," *ASCE Journal of Management in Engineering*, Vol. 18, No. 1, pp. 44-49, January 2002.
4. Trejo, D., Monteiro, P. J. M., Gerwick, B., and Thomas, G., "Microstructural Design of Concrete Reinforcing Bars for Improved Electrochemical Performance*," ACI Materials Journal*, pp. 78-83, January/February 2000.
3. Bianchetti, R. and Trejo, D., "Field Evaluation of Electrochemical Testing Techniques for Assessing Prestressed Concrete Reservoirs*," Materials Performance*, NACE International, pp. 64-69, September 1997 (see author correction in November 1997).
2. Trejo, D., Monteiro, P., and Thomas, G., "Development of Steels for Improved Performance in Reinforced Concrete," *Journal of Materials in Civil Engineering*, ASCE, Vol. 9, No. 1, pp. 1-4, *Innovations Forum*, February 1997.

1. Trejo, D., Monteiro, P., and Thomas, G., and Wang, X., "Mechanical Properties and Corrosion Susceptibility of Dual-Phase Steel in Concrete," *Cement and Concrete Research*, Vol. 24, No. 7, pp. 1245-1254, 1994.

Refereed Conference Publications

27. Jia, G., Gardoni, P., and Trejo, D., Stochastic Modeling of Multiple Deterioration Processes," ICOSSAR 2017—12th International Conference on Structural Safety & Reliability, August 2017, Vienna, Austria.
26. *Shakouri, M, Trejo, D., and Gardoni, P., "A Risk-based Model for Determining Allowable Admixed Chloride Limits in Concrete," International RILEM Conference on Materials, Systems and Structures in Civil Engineering, August 22-24, 2016, Technical University of Denmark, Lyngby, Denmark.
25. Trejo, D. and *Prasittisopin, L., "Chemical Transformation of Rice Husk Ash Morphology for Improving on Early-Aged Characteristics of Cementitious Systems," International Conference on Sustainable Construction Materials & Technologies (SCM3), Kyoto, Japan, August 18 - 21, 2013.
24. *Pagnotta, A., Gardoni, G., Trejo, D., and *Huang, Q., "Probabilistic Impact-echo Method to Detect Debonding of Steel Reinforcement in RC Structures," ICOSSAR 2013, The 11th International Conference on Structural Safety and Reliability, New York, NY, June 16-20, 2013.
23. *Kim, Y. H. and Trejo, D., "Structural Performance and Design of Shear Connector and Coupler System of Full-Depth Precast Deck Panel System," Seventh International Structural Engineering and Construction Conference, Honolulu, HI, June 18-23, 2013.
22. *Prasittisopin, L. and Trejo, D., "Effects of Mixing and Transportation on Characteristics of Cementitious Systems Containing Fly Ash," World of Coal Ash Conference (WOCA), Lexington, KY, April 22-25, 2013.
21. *Pillai, R.G., Trejo, D., Gardoni, P., Reinschmidt, K.F., and Hueste, M.B.D., "A Reliability-based Service-life Design Approach for Segmental Concrete Bridges Subject to Corrosive Conditions," Third International Conference on the Durability of Concrete Structures (ICDCS 2012) Belfast, UK, September 17-19, 2012
20. *Pillai, R.G., and Trejo, D., "Effects of Test Procedures on Critical Chloride Threshold of Steel," Third International Conference on the Durability of Concrete Structures (ICDCS 2012) Belfast, UK, September 17-19, 2012
19. Mander, T.; Head, M.; Mander, J.; Trejo, D., (2010), "Constructability of Full-Depth Precast Concrete Bridge Deck Overhang," Transportation Research Board, Paper No. 10-1626.
18. *Scott, R.; *Mander, T.; Trejo, D.; Mander, J.; Head, M., (2010) "High-Performance Grout Materials and Applications for Full-Depth Precast Overhang Bridge Deck Panels," Transportation Research Board, Paper No.10-1623.
17. *Kim, Y.H., Trejo, D., Gardoni, P. (2010), "Time-Variant Reliability Analysis and Flexural Design of GFRP-Reinforced Bridge Decks," Fifth International Conference on Bridge Maintenance, Safety and Management, Philadelphia, Pennsylvania, PA, July 11-15, 2010.
16. *Kim, Y.H., Gardoni, P., Trejo, D., "Time-Variant Capacity and Reliability of GFRP-Reinforced Bridge Decks," Submitted to the Second International Conference on Sustainable Construction Materials and Technologies, Ancona, Italy, June. 28-30, 2010.

15. *Kim, Y.H., Gardoni, P., and Trejo, D., "GFRP-Reinforced Bridge Decks: Time-Variant Capacity and Reliability," *Refereed*, the First International Conference on Computational Technologies in Concrete Structures (CTCS09), Jeju, Korea, May 24-27, 2009.

14. *Pillai, R.G., Gardoni, P., Hueste, M.D., Reinschmidt, K., and Trejo, D., *Refereed*, "Flexural Reliability of Corroding Segmental Post-tensioned Bridges," ICOSSAR 2009, The 10th International Conference on Structural Safety and Reliability, Osaka, Japan, September 13-17, 2009.
13. *Kim, Y.H., Trejo, D., Hueste, M. D., *Refereed*, "Flexural Behavior of A Full-scale Self-Consolidating Concrete Prestressed Girder, PCI-FHWA National Bridge Conference, Orlando, Florida, October 2008.
12. *Kim, Y. H., Hueste, M. D., Trejo, D., *Refereed*, "Time-Dependent and Structural Behavior of SCC Prestressed Girders," SCC 2008, November 10 – 12, 2008, Chicago, IL.
11. Garas, V. Y.; *Halmen, C.; Justice, J. M.; Trejo, D.; and Kurtis, K. E., *Refereed*, "Design and Evaluation of Metakaolin-Fly Ash Concrete: Consideration of Strength, Durability, and Economy," Advances in Cement and Concrete X: Sustainability, July 2–7, 2006, Davos, Switzerland.
10. Trejo, D. and Reinschmidt, K., *Refereed*, "Economic Evaluation Methods for Assessing Value of Accelerated and Durable Construction Options in Early Design Stages," 2005 FHWA Accelerated Bridge Construction Conference – Path to Future, December 15 – 16, 2005, San Diego, CA.
9. *Halmen, C., Trejo, D., Folliard, K. J., *Refereed*, "Corrosion of Metallic Pipes in Controlled Low Strength Materials," ICCP Ninth International Corrosion Symposium and Exhibition Proceedings, Ankara/Turkey, September 22-25, 2004.
8. Trejo, D., Folliard, K. J., and *Du, L., *Refereed*, "Sustainable Development Using Controlled Low-Strength Material (CLSM)," Proceedings of the International Workshop on Sustainable Development and Concrete Technology, Tsinghua University, Beijing, China, May 20-21, 2004.
7. *Aguíñiga, F., Bradberry, T., and Trejo, D., *Refereed*, "Time-Dependent Mechanical Property Changes of Glass Fiber Reinforced Polymers Exposed to High pH Environments," 9th ASCE Aerospace Division International Conference on Engineering, Construction and Operations in Challenging Environments (Earth and Space 2004), League City/Houston, TX, U.S.A., March 7-10, 2004.
6. Trejo, D. and Reinschmidt, K., *Refereed*, "High-Performance Construction Materials for Life-Cycle Optimization," 2003 Construction Research Congress, Honolulu, Hawaii, March 19-21, 2003.
5. R. Yuan, T. Bradberry, D. Trejo, G. Buth, P. Vann, S. Phelan, and R. James, "Fiber Reinforced Polymer Composite Emerges as Useful Structural Material," Texas Construction, October 2000, pp. 29 – 34.
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8. Corrosion of Prestressing Steels, ACI 222.2R-14, American Concrete Institute, Farmington Hills, MI.
7. Research Opportunities in Corrosion Science and Engineering, (2010), National Materials Advisory Board, Division on Engineering and Physical Sciences, *National Research Council of the National Academies,* The National Academies Press, Washington, D.C.
6. Review of the Bureau of Reclamation's Corrosion Prevention Standards for Ductile Iron Pipe, (2009), National Materials Advisory Board, Division on Engineering and Physical Sciences, National Research Council *of the National Academies,* The National Academies Press; Washington D.C.
5. Guide for Conducting a Visual Inspection of Concrete in Service, (2008), ACI 201.1R-08, American Concrete Institute, Farmington Hills, MI.
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- Chloride Thresholds and Limits for New Construction, American Concrete Institute, Special Publication currently in press, Eds. D. Tepke, D. Trejo, and O.B. Isgor, 2016.
- Self-Consolidated Concrete for Precast Prestressed Applications, American Concrete Institute, SP-247, Editors: A. K. Schindler, D. Trejo, and R. W. Barnes, 2007.

- Gardoni, P., and Trejo, D., Chapter 20 - Seismic Risk Assessment and Management of Ageing and Deteriorating Bridges, Seismic Risk Analysis and Management of Civil Infrastructure Systems, Editors: S. Tesfamariam and K. Goda, Woodhead Publishing Series in Civil and Structural Engineering No. 44, April 2013.

Select Presentations

- Trejo, D., Invited Keynote Lecture, "Chlorides in Cementiitious Systems: Understanding Allowable Limits and Thresholds for Conventional and Alternate Systems," 71st RILEM Annual Week and Inernational Conference on Advances in Construction Materials and Systems, Indian Institute of Technology, Chennai, India, September 3-8, 2017.
- Trejo, D., Shakouri, M., P. Vaddey, and A. Ahmed, "Understanding How to Specify Allowable Chlorides in Reinforced Concrete Systems," Presentation to Corrosion Committee (AHD45), Transportation Research Board, Washington, DC, January 2017.
- *Shakouri, M, Trejo, D., and Gardoni, P., "A Risk-based Model for Determining Allowable Admixed Chloride Limits in Concrete," International RILEM Conference on Materials, Systems and Structures in Civil Engineering, August 22-24, 2016, Technical University of Denmark, Lyngby, Denmark.
- Trejo, D. and *Tibbits, C., "The Influence of SCM Type and Quantity on the Critical Chloride Threshold," American Concrete Institute's Fall Convention, Denver, CO, November 9, 2015.
- Trejo, D. and Isgor, B., "Progress and Challenges in Non-destructive Testing of Reinforcement Corrosion in Concrete Structures," American Society of Non-Destructive Testing, Lewis and Clark Section, October 15, 2015, Portland, OR.
- Trejo, D., Bracci, J. and Gardoni, P., *Invited*, "Quantifying Material, Environmental, and System Variables Influencing the Structural Performance of Reinforced Concrete Structures Affected by Alkali Silica Reactions," Middle East - Mediterranean Materials Congress 2015, January 11-14, 2015, Doha, Qatar.
- Trejo, D., "School Update and Fundraising Strategies for CCE," Construction Education Foundation, Portland, Oregon, December 17, 2013.
- Trejo, D., "Construction Engineering Management at OSU: Update, Assessment, and Needs," Presentation to the Beavers Charitable Trust, October 16, 2013.
- Trejo, D. and Prasittisopin, L., Chemical Transformation of Rice Husk Ash Morphology for Improving the Early-age Characteristics of Cementitious Systems," Third International Conference on Sustainable Construction Materials and Technologies (SCMT3), August 18-21, 2013.
- Kim, Y. H. and Trejo, D. "Structural Performance And Design of Shear Connector and Coupler System for Full-depth Precast Deck Panel System," The Seventh International Structural Engineering and Construction Conference: New Developments in Structural Engineering and Construction, Honolulu, June 18-23, 2013.

- Prasittisopin, L. and Trejo, D., "Effects of Mixing and Transportation on Characteristics of Cementitious Systems Containing Fly Ash," World of Coal Ash Conference (WOCA), Lexington, KY, April 24, 2013.
- Trejo, D., Chen, J., and Prasittisopin, L., "Research Update: Effects of Transport Parameters on Characteristics of Cast-In-Place Concrete," Washington Department of Transportation, November 29, 2012.
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- Trejo, D., "Effects on Impact-Echo Signals Caused by Adjacent Steel Reinforcing Bars and Voids in Lap-Splice Regions: Experimental Study," American Concrete Institute, October 17, 2011.
- Kim, Y. H., Trejo, D.; and Hueste, M. B. D., "Characterization of High Early-Strength Self-Consolidating Concrete for Design of Pretensioned Bridge Elements," *7th International Bridge Engineering Conference,* December 1-3, 2010, San Antonio, Texas.
- Trejo, D. and Pillai, R.G., "Chloride Threshold Determination Using Short- and Long-term Test Methods and Its Sensitivity on Probabilistic Service Life, Session on Corrosion Resistant Reinforcement, American Concrete Institute, Pittsburgh, PA, October 28, 2010
- Pillai, R.G., Gardoni, P., Hueste, M.D., Reinschmidt, K., & Trejo, D., "Flexural Reliability of Corroding Segmental Post-tensioned Bridges," ICOSSAR 2009, The 10th International Conference on Structural Safety and Reliability, Osaka, Japan, September 13-17, 2009.
- Trejo, D., "Constructability Challenges with the Bay Area Rapid Transit (BART) System's Seismic Retrofit Capital Project," Joint Project Meeting with BART and California Department of Transportation (Caltrans), March 20, 2008.
- Atahan, H., Trejo, D., Hueste, M.B., "Applicability of Standard Equations for Predicting the Mechanical Properties of SCC," ACI Fall Convention, October 16, 2008, San Juan, Puerto Rico.
- Kim, Y.H., Trejo, D., Hueste, M.B., "Shear Characteristics of Self-Consolidating Concrete for Precast, Prestressed Concrete Members, ACI Fall Convention, October 16, 2008, San Juan, Puerto Rico.
- Trejo, D. and Halmen, C., "Corrosion Sensors for Reinforced Concrete Structures," Transportation research Board, Presentation to Committee AHD45 – Corrosion, January 12, 2005.
- Trejo, D., Folliard, K., Halmen, C., Du, L., "Corrosion Performance of Pipe Embedded in CLSM," American Concrete Institute Spring Convention, San Francisco, CA, October 2004.
- Trejo, D. and Pillai, R., "New Accelerated Method for Determining the Critical Chloride Threshold Level of Steel Reinforcement Embedded in Mortar – Research in Progress," American Concrete Institute Spring Convention, Detroit, Michigan, April 22, 2002.
- Trejo, D., "New Test Methods for Evaluating the Corrosion Performance and Economic Feasibility of Reinforcing Steels in Concrete," National Association of Corrosion Engineers, Spring Convention, Denver, Colorado, April 8, 2002.

- Trejo, D., "Evaluating the Corrosion Performance of Steel Reinforcement in Cementitious Materials Using an Accelerated Test Method," Industry Coordination Meeting for the Federal Highway Administration and the Florida Department of Transportation, Gainesville, Florida, March 7 and 8, 2002.
- Trejo, D., "Corrosion of Steel in Concrete: Myth or Reality?" Associated General Contractors, Houston, Texas, July 10, 2001.
- Trejo, D., "Accelerated Chloride Threshold Testing for Determining Critical Chloride Threshold for Steel in Concrete," American Association of State Highway and Transportation Officials Annual Meeting, Committee T-9 – Corrosion, Seattle, Washington, May 21, 2001.
- Trejo, D., "Accelerated Chloride Threshold Testing for Determining Electrochemical Activation of Steel in Concrete," Illinois Prestressed Concrete Institute Annual Meeting, AASHTO T-10 (Bridges) Sub-Committee Meeting, Chicago, Illinois, April 21, 2001.
- Trejo, D., "A Solution to Rebar Corrosion," Presentation to the American Concrete Pavement Association (ACPA), Second Annual Concrete Seminar and Workshop for the Transportation Industry, Harrisburg, PA, January 17-18, 2001.
- Folliard K. and Trejo, D., "Controlled Low Strength Material: State of the Art Report," American Concrete Institute Fall 2000 Conference, Toronto, Ontario, Canada, October 15, 2000.
- Trejo, D., "The State of the Art on Fiber Reinforced Polymer Bars in Concrete Structures," Amarillo FRP Bars in Bridge Decks Showcase Program, Sierrita de la Cruz Creek Bridge, Amarillo, Texas, U.S. Department of Transportation and the Federal Highway Administration, Texas Division, July 25, 2000.
- Thomas, G., Trejo, D., and Monteiro, P., "Strategic Issues in the Technology Transfer Process for New High Performance Reinforcing Steel," *The Sixth Construction Industry International Symposium*, Santiago, Chile; September 1995.

Research Projects

Active Research Projects

31. "Performance of High-Strength Steel Reinforcement in Shear Friction Applications," Oregon Department of Transportation, A. Barbosa (PI) and D. Trejo (co-PI), January 1, 2017 (anticipated) to December 31, 2018, $400,000.

Completed Research Projects

30. "Strategies to Increase the Service Life of Existing Bridge Decks," Oregon Department of Transportation, B. Isgor (PI), J. Ideker (co-PI), and D. Trejo (co-PI), July 1, 2014 to September 31, 2016, $252,000.
29. "High-strength Steel Reinforcement for Bridges," Oregon Department of Transportation, A. Barbosa (PI) and D. Trejo (co-PI), July 1, 2013 to June 30, 2016, $235,000.
28. "Influence of Concrete Constituent Materials, Proportions, and Test Procedure on the Fresh Characteristics and Homogeneity of Concrete for CIDH Applications," Sponsored by CALTRANS (through UCSD), D. Trejo (PI at OSU) with B. Shing (PI at UCSD), February 2013 to June 2014, $105,000.

27. "Extended Discharge Time and Revolution Count for Cast-In-Place Concrete," Sponsored by the Washington Department of Transportation, D. Trejo (PI), June 2011 to June 2014; $350,000.
26. "New Strategies for Maintaining Post-seismic Operations of Lifeline Corridors," Sponsored by the Oregon Department of Transportation and PACTRANS, D. Trejo (PI) and A. Barbosa (co-PI), August 1, 2012 to December 31, 2013; $180,000.

25. "Comparison of Pelletized Lime with Other Anti-Stripping Additives for Reducing the Moisture Sensitivity of Hot Mixed Asphalt Concrete Mixtures," Sponsored by the Oregon Department of Transportation, D. Trejo (PI); Overall Project: May 2011 to December 2013; $177,738.
24. "Evaluation of Concrete Structures Affected by Alkali-Silica Reaction And Delayed Ettringite Formation," Sponsored by Texas Department of Transportation, P. Gardoni (PI), D. Trejo (Original PI at TAMU), Q. Huang (University of Akron), September 1, 2009 to August 30, 2012, Overall Project: $378,524.
23. "Development of Products and Specifications for Non-slip Steel Plates," Industry supported, 2010 – 2011, D. Trejo (PI).
22. "Lap Splice and Development Length Performance in ASR and/or DEF Damaged Concrete Elements," Sponsored by Texas Department of Transportation, J. Bracci (PI), D. Trejo (Original PI at TAMU; PI at OSU for 2009/2010), and P. Gardoni, September 1, 2006 to August 30, 2011, Overall Project: $999,989; 2009/2010 OSU Amount: $110,000.
21. "Assessment of Refractory Materials for NASA's Launch Complexes," Sponsored by National Aeronautical and Space Administration, 2008 to 2009, $145,000, D. Trejo (PI).
20. "Development of a Precast Bridge Deck Overhang System," D. Trejo (PI), Sponsored by Texas Department of Transportation, September 1, 2007 to August 31, 2009, $405,010.
19. "Long-term Performance of Glass Fiber-reinforced Polymer (GFRP) Reinforcement," D. Trejo (PI) and P. Gardoni (co-PI), Sponsored by Texas Department of Transportation, September 1, 2007 to October 31, 2008, $95,900.
18. "Analysis and Assessment of Microbial Biofilm-Mediated Concrete Deterioration," Sponsored by Federal Highway Administration, D. Trejo (PI), September 1, 2007 to September 15, 2008, $65,500
17. "Effects of Voids in Grouted, Post-Tensioned Concrete Bridge Construction," Sponsored by the Texas Department of Transportation, D. Trejo (PI), M.B. Hueste (co-PI), and K. Reinschmidt, September 1, 2003 to October 31, 2008, $1,030,772.
16. "Corrosion Performance Tests for Reinforcing Steel in Concrete," Sponsored by the Texas Department of Transportation, D. Trejo (PI) and K. Reinschmidt, September 1, 2003 to October 31, 2008, $509,609.
15. "Assessing the Influence of Halides on Early Mechanical Properties of High Volume Fly Ash Concrete," Industry sponsored, D. Trejo (PI), January 2006 to October 2008, $57,000.
14. "Self-Consolidating Concrete for Precast Structural Applications," Sponsored by the Texas Department of Transportation, D. Trejo (PI) and M.B. Hueste (co-PI), September 1, 2004 to December 31, 2007, $491,536
13. "Feasibility Study for the Development of Marine Exposure Site," K. Reinschmidt (PI), D. Trejo, December 15, 2006 to August 30, 2007, $71,134.

12. "Durability of Segmental Retaining Wall Block," Sponsored by the Federal Highway Administration, K. Folliard (UT Austin), D. Trejo, and K. Hover (Cornell University), September 1, 2002 through August 15, 2006, $56,000.
11. "Traffic Management Studies for Construction of High-Volume Roadways," Sponsored by the Federal Highway Administration and the Texas Transportation Institute, S.D. Anderson (PI), D. Trejo, G. Ulman, and G. Daniels, April 1, 2003 to March 31, 2005, $421,380.
10. "Warranty Specifications for Construction," Sponsored by the Texas Department of Transportation, Investigators; S.D. Anderson (PI), D. Trejo and B. Blaschke, September 2002 to August 31, 2005, $200,232.
9. "Testing the Critical Chloride Threshold in Concrete (Phases I & II)," Private sponsor, D. Trejo (PI), June 1, 2000 through June 30, 2004, $541,334.
8. "Use of Recycled Asphalt Pavement and Crushed Concrete as Backfill for Mechanically Stabilized Earth Retaining Walls," Sponsored by the Texas Department of Transportation, D. Trejo (PI), September 2000 through May 2004, $174,700.
7. "Controlled Low Strength Material for Backfill, Utility Bedding, Void Fill, and Bridge Approaches," Sponsored by the National Academy of Sciences (NCHRP), K. Folliard (PI, UT Austin), D. Trejo (PI, TAMU), September 1998 through August 30, 2004, $210,000.
6. "Allowable Stresses and Resistance Factors for High Strength Concrete," Sponsored by the Texas Department of Transportation, M. B. Hueste (PI), D. Trejo, P. Keating, and D. Cline, January 2000 through May 2003, $279,925.
5. "FRP Reinforcing Bars in Bridge Decks," Sponsored by the Federal Highway Administration, D. Trejo (PI), G. Buth, P. Keating, and R. James, September 1999 through May 2003, $270,000.
4. "Corrosion Performance of Welded Plate," Private sponsor, D. Trejo (PI), September 2000 through May 2001, $65,000.
3. "Construction Engineering and Management Research Program," Sponsored by the National Academy of Sciences (NCHRP), J. Russell (University of Wisconsin, Madison), S. Anderson, D. Trejo, and A. Hanna (University of Wisconsin, Madison), March 2000 through May 2001, $60,000.
2. "Service Life of Corrosion Damaged Reinforced Concrete Bridge Superstructure Elements," National Academy of Sciences," Sponsored by the National Academy of Sciences (NCHRP), D. Trejo (PI), N. Buch (co-PI, Michigan State University), January 2000 through July 2000, $25,000.
1. "Emissions Due to Construction Equipment and Traffic Delays–Evaluating Construction Costs and Schedule Impacts," Sponsored by the Texas Department of Transportation, D. Trejo (PI) and S. Anderson, May 2000 through August 2000, $30,000.

Students and Dissertation, Thesis, and Research Topics

Doctoral Students

Chair or Co-Chair

11. Gokul Vasudevan, Topic to be determined, Anticipated graduation date: June 2020.
10. Ahmed Abdulhaq Ahmed, "*Determination of Critical Chloride Threshold Values for Steels in Alternative Cementitious Systems*," D. Trejo (Chair); Anticipated graduation date: June 2019.

9. Pavan Vaddey, "*Influence of Construction Variables on Concrete Durability and Chloride Threshold Limits*," D. Trejo (Chair); Anticipated graduation date: June 2018.
8. Mahmoud Shakouri, "*A Risk-based Approach to Defining Critical and Allowable Chloride Limits in Concrete,"* D. Trejo (Chair); Anticipated graduation date: September 2017.
7. Lapyote Prasittisopin, Ph.D., *"Development of Chemical Transformation Processes for Durable and Constructible Sustainable Cementing Systems*," D. Trejo (Chair), B. Isgor, C. Bell, L. Muszynski, December 2013, scientist, SCG Cement, Thailand.
6. Seok Been Im, Ph.D., "*Inspection, Assessment, and Repair of Grouted Ducts in Post-Tensioned Bridges*," D. Trejo (co-chair), S. Hurlebaus (co-chair), December 2009.
5. Radhakrishna Pillai, Ph.D., "*Effects of Voids on the Electrochemical Performance of Post-Tensioned Strands*," D. Trejo (co-chair), M. B. Hueste (co-chair), P. Gardoni, K. Reinschmidt, and D. Cline, May 2009, faculty member, Indian Institute of Technology, Madras.
4. Young Hoon Kim, Ph.D., "*Evaluation and Code Modifications for Self-Consolidating Concrete Used for Prestressed, Precast Beam Applications*," D. Trejo (co-chair), M. B. Hueste (co-chair), J. Bracci, and D. Cline, December 2008, faculty member, University of Louisville, Kentucky.
3. Ceki Halmen, Ph.D., "*Physiochemical Characteristics of Controlled Low Strength Materials Influencing the Electrochemical Performance and Service Life of Metallic Materials*," D. Trejo (Chair), S. Anderson, K. Reinschmidt, and D. Cline (Statistics), December 2005, faculty member, University of Missouri, Kansas City.
2. Francisco Aguiniga, Ph.D., "*Serviceability Design of Bridge Decks Reinforced with Fiber Reinforced Polymer Reinforcement*," D. Trejo (Chair), J. Bracci, J. Rossett, and R. Griffin (Mechanical Engineering), December 2003, faculty member, Texas A&M University, Kingsville.
1. Steven Kuennen, D.Eng., "*Construction Management Practice in the Execution of Military Construction Projects*," D. Trejo (Chair), S. Anderson, D. Maxwell, and D. Smith (Industrial Engineering), May 2002, became faculty member after graduation at U.S. Air Force Academy.

<u>Committee Member</u>

9. Chang Li, Mechanisms of Deterioration in Cementitious Systems (preliminary title), J. Ideker (Chair), D. Trejo, B. Isgor, anticipated graduation 2016.
8. Matthew Adams, PhD Candidate, "Early-age Properties of Calcium Aluminate and Calcium Sulfoaluminate Cement Systems," J. Ideker (Chair), D. Trejo, M. Thomas, B. Isgor, and J. Parmigiani, 2015.
7. Alex D. Pagnotta, PhD Candidate, "Bond Assessment of Reinforced Concrete Structures Using Impact Echo Non-Destructive Evaluation and Modeling," P. Gardoni (Chair), J. Popovics, O. Lopez-Pamies, and D. Trejo, Anticipated Graduation 2017.
6. Chang Seon Shon, Ph.D., "*An Integrated Approach to Alkali-Silica Reactivity Testing*," D. Zollinger (Chair), D. Trejo, Glover, C. (Chemical Engineering), August 2007.
5. Byung-Cheol Kim, Ph.D., "*Decision and Risk Analysis and Assessment Techniques for Optimizing Infrastructure Maintenance*," K. Reinschmidt (Chair), D. Trejo, S. Anderson, and D. Cline (Statistics), December 2007, assistant professor, Ohio University.

4. Chirayus Viyanant, Ph.D., (The University of Texas at Austin), "*Geotechnical Evaluation of Recycled Asphalt Pavement and Crushed Concrete as Backfill for Mechanically Stabilized Earth Walls*," E. Rathje, K. Folliard, and D. Trejo, August 2006.
3. Seungwook Lim, Ph.D., "*Viscoelastic Age-Dependent Analysis of Restrained Shrinkage Stress Development in Early-Age Concrete*," D. Zollinger (Chair), R. Lytton, D. Trejo, and David Allen (Aerospace Engineering), December 2002.
2. Lianxiang Du, Ph.D., (The University of Texas at Austin), "*Laboratory Investigations of Controlled Low-Strength Material*," Kevin J. Folliard (Chair), D. Trejo, E. Rathje, and D. Fowler, May 2001, assistant professor, University of Alabama, Birmingham.
1. Shekhar S. Patil, Ph.D., "*Optimal Owner Contractor Relationships Based on Capital Project Competencies*," S. Anderson (Chair), D. Trejo, R. Smith (Construction Science), and J. Courtney (Statistics), August 2000, assistant professor, Minnesota State University, Mankato.

Master's Students with Thesis Option

Chair or Co-Chair

15. Shreyas Panduranga Setty, "*Mechanical and Durability Characterization of Cold Joints in Concrete*," D. Trejo (chair), Committee members: C. Bell and I. Arocho, June 2016.
14. Vandad Mazarei, "*Synergistic Effects of ASR and Corrosion on Concrete Durability*," D. Trejo (Chair); Committee members: J. Ideker and B. Isgor, December 2015.
13. Drew Nielsen, "*Shear Performance of Members Reinforced with High Strength Reinforcement*," D. Trejo (co-chair) and A. Barbosa (co-chair); September 2015.
12. Greg Hendrix, "*Characterization of Early-age Concrete for Optimal Use in Cast-In-Drilled-Hole (CIDH) Piles*," D. Trejo (Chair), Committee members: J. Ideker and B. Isgor, June 2015.
11. Jiaming Chen, "*Influence of Transport Parameters on the Fresh and Hardened Characteristics of Ready-Mixed Concrete*," D. Trejo (Chair), Committee members: C. Bell and B. Isgor, August 2014.
10. Tim Link, "*Seismic Performance of Circular Reinforced Concrete Bridge Columns Constructed with Grade 80 Reinforcement*," D. Trejo (Chair), Committee members: A. Barbosa and B. Isgor, June 2014.
9. Yisen Guo, "*Assessing the Seismic Performance of Corroding Reinforced Concrete Bridge Columns,"* D. Trejo (Chair), Committee members: M. Scott and S. Yim, August 2011.
8. Ryan Alberson, "*Modeling the Capacity Reduction of Slender Columns Experiencing ASR Deterioration*," D. Trejo (co-chair) and J. Bracci (co-chair), August 2009.
7. Suresh Kataria, "*Specification Development for Post-Tensioned Grouts*," D. Trejo (Chair), K. Reinschmidt, D. Cline (Statistics), August 2008.
6. Chandan Bhattacharjee, "*Probabilistic Model for Predicting the Modulus of Elasticity of Self-Consolidating Concrete*," D. Trejo (co-chair), P. Gardoni (co-chair), December 2007.
5. Aaron Hoelsher, M.S., "*Design, Development, and Evaluation of Accelerated Test Procedure for Evaluating the Freeze-Thaw Performance of Segmental Retaining Wall Blocks*," D. Trejo (Chair), S. Anderson, and K. Reinschmidt, G. Teizer (Physics), December 2006.

4. Michael Esfeller, M.S., "*Characterization of Recycled Aggregates for Determining Constructability and Service Life of Mechanically Stabilized Earth Walls*," D. Trejo (Chair), R. Griffin (Mechanical Engineering), August 2006.
3. Radhadkrishna Pillai, M.S., "*Accelerated Quantification of Critical Parameters for Predicting the Service Life and Life Cycle Costs of Chloride-Laden Reinforced Concrete Structures*," D. Trejo (Chair), J. Bracci, and R. Griffin (Mechanical Engineering), August 2003.
2. Praveen Chompreda, M.S., "*Evaluation of Mechanical Properties of High Strength Concrete for Prestressed Concrete Bridge Design*," M.B. Hueste (co-chair), D. Trejo (co-chair), P. Keating, and D. Cline (Statistics), December 2001.
1. Benjamin C. Schaefer, M.S., "*Thermal and Environmental Effects on Fiber-Reinforced Polymer Reinforcing Bars and Reinforced Concrete Elements*," D. Trejo (Chair), M.B. Hueste, and T. Kohutek (Engineering Technology), December 2001.

Committee Member

15. Cody Tibbits, "*Binding and Oxychloride in Cementitious Systems*," J. Weiss (Chair), D. Trejo, June 2017.
14. Luca Montanari, *"Toward a Design Methodology for Internal Curing Through Pore Size Analysis*," J. Weiss (Chair), D. Trejo, March 2017.
13. Li Chang, "*A Comprehensive Mechanistic Study on Using Fine Lightweight Aggregate to Mitigate Alkali-silica Reaction,"* J. Ideker (Chair), D. Trejo, B. Isgor, 2016.
12. Matt Adams, "*Alkali Silica Reaction and Recycled Aggregate*," J. Ideker (Chair), D. Trejo, B. Isgor, 2013.
11. Tengfei Fu, "Internal Curing for Bridge Decks," J. Ideker (Chair), D. Trejo, and L. Muszyński, 2013.
10. Nicholas S. Lampert, "*Quantification of Resin Efficiency in Wood Composite Panels*, L. Muszynski (Chair), Committee Members: Jeffrey Morrel and D. Trejo, March 2014.
9. Ashenafi Woldemariam, M.S. Student, "*Traffic Schemes for Improving Concrete Paving Practices of High Volume Roadways*," S. Anderson (Chair), D. Trejo, May 2007.
8. Clayton Chabannes, M.S. Student, "*Improving Concrete Paving Practices for High Volume Roadways*," S. Anderson (Chair), D. Trejo**;** December 2005.
7. Fayez Moutassem, M.S., "*Evaluation of Design Factors for Use with High Strength Concrete for Bridge Girders*," M.B. Hueste (Chair), D. Trejo, P. Keating, and D. Cline (Statistics), May 2003.
6. Kelly E. Donnell, M.S. Student, "*Improving Cost Estimating Practices for Highway Projects*," S. Anderson (Chair), D. Trejo, and D. Smith, May 2005.
5. Jason Curbo, M.S., (MEEN), "*A Preliminary Investigation of The Effects of Environmentally Assisted Cracking on Natural Gas Transmission Pipelines*," R. Griffin and D. Trejo, December 2004.
4. Alfin Priambudi, M.S. (MEEN), "*Lifetime Prediction of Pressurized Pipelines in Corrosive Environments*," R. Griffin (Chair), D. Trejo, and R. Chona, December 2001.
3. Kanat A. Sultanbekov, M.S., "*Guidelines for Standard Web-based Information Systems*," D. Maxwell (Chair), D. Trejo, and Marina Vannucci (Statistics), May 2000.

2. Rodrigo de las Casas, M.S., "*Documentation of Key Factors for Successful Reconstruction of High Volume Roadways*," S. Anderson (Chair), D. Trejo, and C. Graham (Construction Science), December 2001.
1. Andrew Damron, M.S., "*Identification of Research Development Needs in Highway Construction Engineering and Management*," S. Anderson (Chair), D. Trejo, T. Wehrly (Statistics), May 2001.

Masters Students with Report Option (reports were required at TAMU for non-thesis option prior to 2002)

Member

5. Rahul Deshmukh, M.Eng., "*Cost and Schedule Impact of Texas Natural Resource Conservation Commission's Proposed Rule Restricting Construction Equipment*," S. Anderson (Chair), D. Trejo, and J. Craig (Construction Science), December 2000
4. Thangarajan Chokalingapandian, M.Eng., "*Materials Handling and Billing System Using the Web*," Committee: D. Maxwell (Chair), D. Trejo, and J. Craig (Construction Science), May 2000.
3. Xiaogang Wang, M.Eng., "*Information System for Construction Management*," D. Maxwell (Chair), D. Trejo, and G. Williams (Computer Science), 1999.
2. Huzefa Tinwala, M.Eng., "*Techniques Used to Minimize Lane Occupancy During Construction and Maintenance*," S. Anderson (Chair), D. Trejo, and J. Smith (Construction Science), 1999.
1. Isabelle Pallanca, M.Eng., "*Organizational Behavior Issues in Construction*," S. Anderson (Chair), D. Trejo, and M. Vannucci (Statistics), May 1999.

Professional and Service Activities

- Member, College of Engineering Change Team: An Inclusive and Collaborative Community, fall 2016 – current.
- Member, Oregon State University ADVANCE Program, Implementing Institutional Change in Equity, Inclusion, and Justice, June 2016.
- Transportation Research Board, Member, Committee A2E01 – Durability of Concrete, 2016 – current.
- Editorial Board Member, *Journal of Sustainable and Resilient Infrastructure*, Taylor and Francis Group, Appointment start: Sept. 2015 – present.
- OSU Representative Director, Construction Education Foundation, 2014 – present.
- Ex-Officio Director, Associated General Contractors—Oregon Columbia Chapter, Wilsonville, OR, appointment start: January 2015.
- Member, Partnerships Task Force Committee (implementation of new strategic plan), College of Engineering, Oregon State University, appointment start: October 2014.
- Member, Strategic Planning Steering Committee, College of Engineering, Oregon State University, 2014-2015.
- Member; The Beavers: A Heavy Engineering Construction Association, 2014-current.
- Member, Faculty Senate Grievance Committee Oregon State University, appointment start: July 2014.
- Senator, Faculty Senate, Oregon State University, appointment start: July 2014.
- Reviewer, NSF SBIR/STTR Review Panel, 2013.
- Member, University Strategic Planning Committee, Oregon State University, Appointed 1/2013.
- Member, Expert Task Group for Construction and Materials, Oregon Department of Transportation, 2010-current.

- Member, College Promotion and Tenure Committee, Elected October 2011 (3-year term; resigned from position when appointed to Acting School Head as required by University P&T policy).
- Member, Faculty Senate Promotion and Tenure Committee, Appointed 2011 (3-yr term).
- Chair, Faculty Status Committee, School of Civil and Construction Engineering, Oregon State University, 2010-2011.
- Chair, American Concrete Institute, Committee 222 – Corrosion of Metals in Concrete, Appointed 2010, Reappointed 2014.
- Member, Faculty Status Committee, School of Civil and Construction Engineering, Oregon State University, 2009-2010.
- Member, Promotion and Tenure Committee, Department of Civil Engineering, Texas A&M University, 2004, 2005, 2006, 2008.
- Member, Committee Research Opportunities in Corrosion Science and Engineering (ROCSE), National Academy of Sciences, Materials Advisory Board, December 2008 to December 2009.
- Teaching-Learning Roadmap Committee (University level committee to define strategic improvements to the existing educational environment), Texas A&M University, 2008 to 2009.
- Member, Committee to Review the Bureau of Reclamation's Corrosion Prevention Standards for Ductile Iron Pipe, National Academy of Sciences, Materials Advisory Board, July 2008 to January 2009.
- Reviewer, Small Business Innovative Research Program, Environmental Protection Agency, August 2007, 2009.
- Associate Editor, ASCE Materials Journal, 2002-2010.
- American Concrete Institute, Member, Committee 201 – Concrete Durability, Appointed 2004.
- American Concrete Institute, Member, Committee 222 – Corrosion of Metals in Concrete, Appointed 1998 (Committee Chair 2010-current).
- American Concrete Institute, Member, Committee 236 – Materials Science in Concrete, Appointed 1998.
- American Concrete Institute, Assoc. Member, Committee 365 – Service Life Prediction, Appointed 1999.
- Transportation Research Board, Member, Committee A2E01 – Durability of Concrete, 2005-2012.
- Transportation Research Board, Member, Committee A3C15 – Corrosion, Appointed January 2002-2012.

Honors, Licenses, Awards, and Other Accomplishments

- American Concrete Institute's Delmar L. Bloem Distinguished Service Award, November 2016.
- Dennis Marker Teacher of the Year Award, Construction Engineering Management Program in the School of Civil and Construction Engineering, 2016.
- Fellow, American Concrete Institute, 2013.

- Hal D. Pritchett Endowed Chair in Civil and Construction Engineering, January 2010 to present.
- Construction Education Foundation Endowed Chair, School of Civil and Construction Engineering, Oregon State University, September 2009 to January 2011.
- Zachry Career Development Professor I, Dwight Look College of Engineering, Texas A&M University, 2008 to August 2009.
- Charles H. Barclay, Jr. ’45 Faculty Fellowship, Dwight Look College of Engineering, Texas A&M University, 2007 to 2008.
- National Aeronautics and Space Administration (NASA) Research Fellow, 2005.
- Eisenhower Faculty Fellowship, Federal Highway Administration, 2005.
- Texas Professional Engineer, May 2004 to 2012.
- National Aeronautics and Space Administration (NASA) Research Fellow, 2004.
- Invited Participant, Inaugural Conference of the Texas Academy of Science, Engineering, and Medicine, January 7 & 8, 2004.
- US Patent No. 6,646,427 B2, Determination of Chloride Corrosion Threshold for Metals Embedded in Cementitious Material,” November 2003.
- Texas Engineering Experiment Station Research Fellow, College of Engineering, 2001.
- Eisenhower Faculty Fellowship, Federal Highway Administration, 1998.
- Roy W. Carlson-Milos Polivka Research Fellowship, U. C. Berkeley, 1995.
- Chi Epsilon National Member, 1991 to present.
- American Concrete Institute Research Fellowship, 1992.
- California Professional Engineer, 1996 to present.

The contents of this CV are accurate to the best of my knowledge.