Curriculum Vitae

David Trejo, Ph.D., P.E.
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Expertise and Interests

Collaborative leadership; constructability, durability, sustainability, and performance of infrastructure systems; development of materials and systems for accelerated and durable construction; sustainability; evaluation of material deterioration processes and mechanisms (materials science); electrochemistry and corrosion; construction engineering of heavy civil systems; improving constructability and rehabilitation of the built environment; service-life prediction of infrastructure systems; life-cycle modeling.

Education

- Ph.D., Department of Civil and Environmental Engineering; Civil Engineering with emphasis in 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, Civil Engineering with emphasis in 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

- *Editor-in-Chief*, Journal of Sustainable and Resilient Infrastructure, Taylor and Francis, 2020-current.
- *Special Assistant to the Executive Associate Dean of Engineering (COE Representative for Construction and Facilities)*, August 2016 to 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.
- *Specialist,* Kiewit Corp., Abernathy Bridge Project, Oregon City, OR, June 2023 to September 2023.
- *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 advisee)

- *Vasudevan, G.D. and Trejo, D., "Quantification of Critical Chloride Threshold of Portland Limestone Cements Containing Supplementary Cementitious Materials," *In Review*, *Construction and Building Materials Journal*, May 2022.
- *Vasudevan, G. and Trejo, D., "A New Method for Proportioning Sustainable, Economic, and Resilient Concrete," *In Review*, *ACI Materials Journal*, March 2022.

107. Trejo, D. and *Vasudevan, G.D, "Allowable Chlorides in Concrete: Science-based Exposure Classifications and Limits," *Accepted for Publication*, June 2023, *ACI Materials Journal*.

106. *Ahmed, A.A., Shakouri, M, Trejo, D., and Vaddey, N.P., "Effect of Curing Temperature and Water-To-Cement Ratio on Corrosion of Steel in Calcium Aluminate Cement Concrete," Construction and Building Materials, Vol. 350, No. 3, October 2022, ISSN 0950-0618.
105. *Jahanger, Q., Louis, J., and Trejo, D., "Evaluation of Field Labor and Management Productivity in the US Construction Industry," Engineering, Construction and Architectural Management, Emerald Publishing, July 2023.
104. *Vasudevan, G. and Trejo, D., "Quantifying the Influence of Off-spec Fly Ash Characteristics on Concrete Performance," ACI Materials Journal, Vol. 120, No. 3, May 2023.
103. Shakouri, M.. Ahmed A.A., Teymouri, M., and Trejo, D., "Corrosion Resistance of Calcium Sulfoaluminate Cementitious Systems," ASCE Journal of Materials in Civil Engineering, Vol. 35, No. 8, May 2023.
102. *Vasudevan, G. and Trejo, D., "Bayesian Model for Sustainable, Resilient, and Cost-effective Concrete Mixtures," Journal of Sustainable and Resilient Infrastructure, 8:3, March 2023, pp. 325-339.
101. *Ahmed, A. and Trejo, D., "Quantifying the Conservativeness of Water-soluble Chloride Testing," ACI Materials Journal, Vol. 120, No. 2, March 2023.
100. Adil, G., Halmen, C., Vaddey, P., Pacheco, J. and Trejo, D., "Multi-Laboratory Validation Study of a Critical Chloride Threshold Test Method," ACI Materials Journal, Vol. 19, No. 6, Nov. 2022, pp. 91-100.
99. *Jahanger, Q.K., Louis, J., and Trejo, D., "Implementation Framework to Facilitate Digitalization of Construction-Phase Information Management by Project Owners," Journal of Information Technology in Construction, January 2022.
98. *Vasudevan, G.D. and Trejo, D., "Assessing the Critical Chloride Threshold of Conventional Reinforcement Embedded in Alternate Cementitious Systems," Construction and Building Materials Journal, September 2022, Vol. 346.
97. *Vasudevan, G. D. and Trejo, D., Suitability of CPC-18 and Carbonation of Specialty Cementitious Systems," ACI Materials Journal, Vol. 119, No. 3, May 2022.
96. Bharadwaj, K., Isgor, B., Weiss, W.J., Chopperla, K.S.T., Choudary, A., *Vasudevan, G.D., Glosser, D., Ideker, J., Trejo, D., "A New Mixture Proportioning Method for Performance-based Concrete," ACI Materials Journal, Vol. 119, No. 2, March 2022.
95. *Jahanger, Q.K., Louis, J., Trejo, D., and Pestana, C., "Potential Influencing Factors Related to Digitalization of Construction-Phase Information Management by Project Owners," ASCE Journal of Management in Eng., May 2021 (online), Vol. 37, No. 3.
94. *Jahanger, Q.K., Louis, J., Pestana, C., and Trejo, D., "Potential Positive Impacts of Digitalization of Construction-phase Information Management for Project Owners," Journal of Information Technology in Construction, Jan. 2021, Vol. 26, No. 1, pp. 1-22.
93. *Vaddey, N.G. and Trejo, D., "Optimizing Test Parameters For Quantifying Critical Chloride Threshold, ACI Materials Journal," March 2021, Vol. 118, No. 2, pp. 53-66.
92. Trejo, D., *Vaddey, N.G., and Halmen, C., "Standardizing Test to Quantify Chloride Threshold of Steel in Concrete," ACI Materials Journal, January 2021, Vol. 118, No. 1, pp. 177-178.

91. *Vaddey, N.P., Trejo, D., and Shakouri, M., "Predicting Chloride Testing Outcome of Different Cementitious Systems," ACI Materials Journal, Jan. 1, 2020, Vol. 117, No.1, pp. 139-151.
90. *Ahmed, A. and Trejo, D., "Assessing Standard Tests for Admixed Chlorides in CAC and CSA Systems, ACI Materials Journal, January 2020, Vol. 117, No. 1, pp. 71-83.
89. Isgor, O.B., Angst, U., Geiker, M., Halmen, C., Hansson, C., Pacheco, J., Tepke, D., Trejo, D., and Vaddey, N.G., "Recommended Practice for Reporting Experimental Data Produced from Studies on Corrosion of Steel in Cementitious Systems," RILEM Technical Letters, April 2019.
88. Shakouri, M., *Vaddey, N. P., and Trejo, D., "Special Issue: Effect of Admixed and External Chlorides on the Transport of Chlorides in Concrete," ACI Materials Journal, Sept. 2019, Vol. 116, No. 5, pp. 119-128.
87. *Shakouri, M., Trejo, D, Vaddey, N.P., Isgor, O. B., "Development of Empirical Models for Chloride Binding in Cementitious Systems Containing Admixed Chlorides," Construction and Building Materials, Vol. 189, November 2018, pp. 157-169.
86. *Shakouri, M. and Trejo, D., "Estimating the Critical Chloride Threshold for Conventional Reinforcing Steel in Concrete Using a Hierarchical Bayesian Model," Journal of Sustainable and Resilient Infrastructure, December 2017 (online).
85. Trejo, D. and *Ahmed, A., "Adopting Auto-titration to Assess Chlorides in Concrete," ACI Materials Journal, May 2019, Vol. 116, No. 3, pp. 43-52.
84. Trejo, D., *Vaddey, N.P., and Shakouri, M., "Factors Influencing Chloride Test Results for Different Cementitious Systems," ACI Materials Journal, Vol. 116, No. 1, January 2019, pp. 135-145.
83. *Shakouri, M. and Trejo, D., "A Study of the Factors Affecting the Maximum Chloride Phenomenon in Saturated Concrete Surface Layers," Cement and Concrete Composites, September 2018.
82. Azad, V.J., Suraneni, P., Trejo, D., Weiss, W.J., and Isgor, O. B., "Thermodynamic Investigation of Allowable Admixed Chloride Limits in Concrete," ACI Materials Journal, Vol. 115, No. 5, September 2018, pp. 727-738.
81. *Vaddey, N.P. and Trejo, D., "The Influence of Concrete Mixture Parameters and Admixed Chloride Level on Chloride Test Measurements," ASCE Journal of Materials in Civil Engineering, Vol. 30, No. 8, August 2018.
80. Barbosa, A., Trejo, D., *Nielson, D. R., "Performance of Shear Specimens Reinforced with High-strength Reinforcing Bars," ACI Structural Journal, Nov. 2018, Vol. 115, No. 6, pp. 1529-1539.
79. *Setty, S. P. and Trejo, D., "Effects of Surface Preparation and Curing on Joint Performance," ACI Materials Journal, Vol. 115, No. 3, May 2018, pp. 349-357.
78. Trejo, D. and *Hendrix, G., "Influence of Aggregate and Proportions on Flowing Concrete Characteristics," ACI Materials Journal, Vol. 115, No. 2, March 2018, pp. 171-180.
77. *Prasittisopin, L. and Trejo, D., "Effects of Mixing Time and Revolution Count on Characteristics of Blended Cement Containing Rice Husk Ash," ASCE Journal of Materials in Civil Engineering, Vol. 30, No. 1, January 2018.
76. *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," Construction and Building Materials, Vol. 153, October 2017, pp. 647-655.

75. Trejo, D., *Mazarei, V., Ideker, J. H., and Isgor, O. B., "The Influence of ASR Reactivity on Corrosion in Reinforced Concrete," ACI Materials Journal, Vol. 114, No. 5, September 2017.
74. Chang, M. T., Suraneni, P., Isgor, O. B., Trejo, D., and Weiss, W. J., "Using X-ray Fluorescence to Assess the Chemical Composition and Resistivity of Simulated Cementitious Pore Solution," International Journal of Advances in Engineering Sciences and Applied Mathematics, Springer Journals, Vol. 9, No. 3, September 2017.
73. *Shakouri, M. and Trejo, D., "A Time-Variant Model of Surface Chloride Build-Up for Improved Service Life Predictions," Cement and Concrete Composites, Vol. 84, 2017, pp 99-110, August 2017
72. Barbosa, A., Trejo, D., and, *Nielson, D. R., "Effect of High Strength Reinforcement Steel on Shear Friction Behavior," ASCE Journal of Bridge Engineering, Vol. 22, No. 8, August 2017.
71. *Hendrix, G. and Trejo, D., "New Mixture Proportioning Method for Flowing Concrete Mixtures," ACI Materials Journal, Vol. 114, No. 4, July 2017.
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," Engineering Structures, Vol. 71, 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.
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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.
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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.
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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.
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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.
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- Trejo, D., *Invited Lecture*, "Service Life of Reinforced Concrete Structures: The Influence and Value of Using Corrosion-resistant Reinforcement," January 30, 2023, Sixth Workshop on Corrosion and Its Control in Concrete Structures, IIT Madras, Chennai, India.
- Trejo, D., *Invited Lecture*, "Standardizing Testing, Exposure Classifications, and Allowable Chlorides for Corrosion Resistance in Concrete," February 1, 2023, Technologies for Low-Carbon and Lean Construction, IIT Madras, Chennai, India.
- Trejo, D. and Manickam, K., *Invited Lecture*, Durable Concrete Construction, February 3, 2023, SPARC Workshop on Sustainability and Durability of Concrete Structures, IIT Madras, Chennai, India.
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- Trejo, D., *Invited Lecture*, "Corrosion and Service-life of Concrete Structures – The Need for Science-based Specifications and Standardized Testing," SPARC-MHRD 2-Day Workshop on Sustainability and Durability of Concrete Structures with By-products and Recycled Materials, January 17-18, 2020, Chennai, India.
- Trejo, D., *Invited Lecture*, "Overcoming challenges to increase use of non-standard and off-spec supplementary cementing materials in concrete systems," SPARC-MHRD 2-Day Workshop on Sustainability and Durability of Concrete Structures with By-products and Recycled Materials, January 17-18, 2020, Chennai, India.
- Trejo, D., "Innovations in Concrete Technologies," U.C. Berkeley Construction Innovation Day, Berkeley, CA, November 1, 2019.
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- 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.
- Trejo, D., Chen, J., and Prasittisopin, L., "Effects of Transport Parameters on Characteristics of Cast-In-Place Concrete," University of Illinois at Urbana-Champaign, October 14, 2012.

- Trejo, D., "Adding Value by Accelerating the Construction Process," Presentation to Granite Construction, November 4, 2011.
- 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

37. "SPARC: Enhancing the Durability and Sustainability of Concrete Structures in Emerging Economies," IIT Madras (Chennai, India) and Oregon State University (USA), 2019 to September 2023, P. Radhakrishna (PI @ IITM), D. Trejo (OSU), ~$50,000.
36. "Evaluation of Curb Ramp Compliance: Review of Tools, Methods, and Time to Develop Error Tolerances," M. Olsen (PI), D. Trejo (Assoc. Inv.), E. Che (Assoc. Inv.), Oregon Department of Transportation, $270,000
35. "Alternative High Early-strength Concrete (HESC) Structural Overlays," J. Ideker (PI), O.B. Isgor (Co-PI), D. Trejo (Co-PI), and J. Weiss (Co-PI), Oregon Department of Transportation, Oct. 2020 to July 2023, $319,000.

Completed Research Projects

34. "Improving Constructability and Durability of Slip-formed Concrete Pavements," D. Trejo (PI), Oregon Department of Transportation, September 1, 2018 – July 31, 2022, $315,000.
33. "Impact of Use of Portland-Limestone Cement on Concrete Performance as Plain or Reinforced Material," J. Weiss (PI), J. Ideker (co-PI), B. Isgor (co-PI), and D. Trejo (co-PI), December 2017 to July 2020, $300,000.
32. "Development of a Performance-based Mixture Proportioning Procedure for Concrete Incorporating Off-spec Fly ash," B. Isgor (PI), J. Ideker (co-PI), J. Weiss (co-PI), and D. Trejo (co-PI), November 2017 to October 2019, $300,000.
31. "Performance of High-Strength Steel Reinforcement in Shear Friction Applications," Oregon Department of Transportation, A. Barbosa (PI) and D. Trejo (co-PI), April 1, 2017 to March 31, 2019, $400,000.
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

13. Erick Moreno Rangel, Ph.D. student, topic to be determined.
12. Gokul Vasudevan, Ph.D., "Towards a Carbon Neutral Concrete Industry: Newly Implementable Methods for Reducing the Carbon Footprint of Concrete," June 2022, Lecturer, University of Georgia.
11. Qais Jahanger, Ph.D., "*Digital Management and Documentation Systems for Public Construction Projects: Critical Factors Influencing Implementation and Effectiveness*," D. Trejo (Co-Chair) and Joseph Louis (Co-Chair); June 2020, Lecturer, Mustansiriyah University, Baghdad, Iraq.
10. Pavan Vaddey, Ph.D., "*Influence of Construction Variables on Concrete Durability and Chloride Threshold Limits*," D. Trejo (Chair); June 2020, Industry.
9. Ahmed Abdulhaq Ahmed, PhD., "*Critical Assessment of Chloride States and Quantities in Ordinary Portland and Specialty Cements*," D. Trejo (Chair); O. B. Isgor, J. Ideker, P. Suraneni, and K. Mclaughlin (statistics), December 2018. Lecturer, Mustansiriyah University, Baghdad, Iraq.
8. Mahmoud Shakouri, Ph.D., "*A Risk-based Approach to Defining Critical and Allowable Chloride Limits in Concrete,"* D. Trejo (Chair); September 2017, Assistant Professor, Colorado State Uniersity.
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, Bridge and Structure, Civil Engineering Center, Samsung C&T Corporation, Seoul, Korea.
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, Associate Professor, 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, Associate Professor, 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, Associate Professor, 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, Professor, 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.

Committee Member

12. Pratik Vinod Murkute, PhD Candidate, Preliminary title: Stainless-steel Cladding of Carbon Steels via Additive Manufacturing, O. B. Isgor (Chair), D. Trejo, Anticipated graduation date: 2020.
11. Matt Barner, PhD Candidate, Preliminary title, Learning Concepts in Structural Engineering, S. Brown (Chair), A. Barbosa, D. Trejo, D., Montfort, and R. Vue, Anticipated graduation December 2019.
10. Stephanie Lange, "*Behavior of Concrete-Lined Tunnels Crossing Active Faults*," S. Ashford (Chair), M. Scott, B. Mason, and D. Trejo, Anticipated graduation date: June 2019.
9. Alex D. Pagnotta, Ph.D. (at UIUC), "*Probabilistic Impact-Echo Method for Nondestructive Detection of Defects Around Steel Reinforcing Bars in Reinforced Concrete*," P. Gardoni (Chair), J. Popovics, O. Lopez-Pamies, and D. Trejo, December 2018.
8. Chang Li, Ph.D., "*Mechanisms of Deterioration in Cementitious Systems*," J. Ideker (Chair), D. Trejo, B. Isgor, 2016.
7. Matthew Adams, Ph.D., "*Early-age Properties of Calcium Aluminate and Calcium Sulfoaluminate Cement Systems*," J. Ideker (Chair), D. Trejo, M. Thomas, B. Isgor, and J. Parmigiani, 2015.
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

17. Erick Moreno Rangel, "Assessing the Sustainability-Resiliency Balance Point," D. Trejo (chair); Committee members: Catarina Pestana, Joe Louis, Ingrid Arocho; June 2023.

16. Nicolas Matus Casanova, "*Performance of High-Strength Steel Reinforcement in Shear Friction Applications*," D. Trejo (co-chair) and A. Barbosa (co-chair); Committee members: Arijit Sinha and J. Parmigiani, August 2018.
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

16. Cody Tibbits, "*Binding and Oxychloride Formation in Cementitious Systems*," J. Weiss (Chair), D. Trejo, Anticipated June 2018.
15. Marisol T. Chang, "*The Evaluation of Cementitious Pore Solution Composition and Electrical Resistivity Using X-ray Fluorescence (XRF)*," J. Weiss (Chair), O. B. Isgor, D. Trejo, December 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, M.S., "*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., "*Traffic Schemes for Improving Concrete Paving Practices of High Volume Roadways*," S. Anderson (Chair), D. Trejo, May 2007.
8. Clayton Chabannes, M.S., "*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., "*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.

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

- Reviewer, National Science Foundation's LEAP-HI Program, 2023.
- Chair, 222.4 Committee on Quantifying Exposure Classifications, Chloride Thresholds, and Allowable Chlorides in Concrete, American Concrete Institute, 2022 - current.
- Chair, 201-I Committee on Corrosion, American Concrete Institute, 2020 - current.
- Organizer of Inaugural Collaborative Leadership Training, International Brotherhood of Carpenters International Training Center, Oct. 30 – Nov. 1, 2017, Las Vegas, NV.
- 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 – 2016.
- 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, 2010-2017.
- Member, Faculty Status Committee, School of Civil and Construction Engineering, Oregon State University, 2009-2010.
- Board of Directors, Construction Education Foundation, 2010 – current.
- Member, Promotion and Tenure Committee, Department of Civil Engineering, Texas A&M University, 2004, 2005, 2006, 2008.
- Member, Committee on 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 and Author, 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 2010-2018).
- 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, and Committee A3C15 – Corrosion, Appointed January 2002-2012.

Honors, Licenses, Awards, and Other Accomplishments

- ACI Foundation – Concrete Research Council – *2022 Robert E. Philleo Award* for significant contributions in teaching and research that improved constructability, sustainability, and resiliency of concrete systems, 2023.
- Oregon Professional Engineer, March 2018/2019.
- 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 Fellow, 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, February 7, 1997 to present.

Select Consulting Topics

- Optimizing heavy construction methods
- Service-life modeling
- Corrosion of metal lath in stucco
- Corrosion of metallic embeds in foundations
- Prediction of mechanical properties of concrete
- Construction methods and system performance
- Durability and performance of bridge joints
- Corrosion of metal MSE tie-backs
- Corrosion of steel reinforcement in cementitious systems
- Assessing concrete subjected to fire
- Testing of chlorides in cementitious systems
- Constructability assessment of reinforced concrete rehabilitation

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