CURRICULUM VITAE

Siddaiah Yarra, Ph.D.

Assistant Teaching Professor, University of California, Merced

Professional Preparation:

University of Nevada, Reno (UNR) Civil and Environmental Engineering Ph.D. 2018
Dissertation – "Development of Magnetorheological Elastomer System for Adaptive Vibration Isolation"
Electronic Dissertation link: S Yarra

San Jose State University (SJSU) Civil Engineering M.S. 2010

Jawaharlal Nehru Technological University (JNTU) Civil Engineering B.Tech. 2007

Teaching Appointments:

University of California, Merced, CA *Assistant Teaching Professor (07/2020 -Present)*

San Francisco State University, San Francisco, CA *Lecturer (09/2018 – 08/2020)*

Courses Taught

ENGR 100	Introduction to Engineering	Lower division required
ENGR 102	Statics	Lower division required
ENGR 201	Dynamics	Lower division required
ENGR 309	Mechanics of Solids	Upper division required
ENGR 439	Construction Engineering	Graduate elective
MATH 245	Elementary Differential Equations and Linear Algebra	Lower division required
MATH 226	Calculus - I	Lower division required

Santa Clara University, Santa Clara, CA *Adjunct Lecturer (09/2018 – 12/2018)*

Course Taught

CENG 222	Advanced Structural Analysis	Graduate required

University of Nevada, Reno, NV *Instructor / Teaching Assistant (08/2013 – 12/2017)*

Courses Taught

CEE 305	Computer-Assisted Problem Solving	Upper division required
MATH 95	Elementary Algebra	Lower division required
MATH 120	Fundamentals of College Mathematics	Lower division required
MATH 127	Precalculus II	Lower division required

San Jose State University, San Jose, CA *Teaching Associate (08/2009 – 08/2010)*

Course Taught

CE 140	Introductory soil mechanics laboratory	Lower division required

San Jose State University, San Jose, CA *Summer Bridge Teacher (Summers 2008-2010)*

San Jose State University, San Jose, CA *Workshop Facilitator (08/2008 – 05/2009)*

San Jose State University, San Jose, CA *LARC - Tutor 01/2008 – 05/2009*

San Jose State University, San Jose, CA *ISA - Grader 09/2009 – 05/2010*

Research Appointments:

University of Nevada, Reno *Research Assistant (01/2015-07/2017)*
Project – "A Self-Sensing Adaptive Material for New Generation of Multifunctional Highway Bridge Bearing System" - FHWA

San Jose State University, San Jose, CA *Assistant Specialist in Research (02/2011 – 06/2013)*
Project - "Pathways Project-Drift-Sensitive experimental testing of precast concrete cladding" - NSF

University of California - Berkeley *Assistant Specialist in Research (09/2012-06/2013)*

University of California - Berkeley *R&D Engineer – I (09/2011-09/2012)*
Project – "Seismic Performance of Concrete Duct Banks" – PG & E

Industry Appointments:

Sierra Engineering Group, Fremont, CA *Consultant / Senior Engineer (03/2019 – 05/2020)*
Engineering design calculations for glass fiber reinforced concrete, cast stone and existing civil engineering-built structures.
Review of as-built drawings

Roy Associates, Fremont, CA *Structural Engineer (12/2017 – 07/2018)*
Site visit for assessment and evaluation
Review of as-built and shop drawings
Modeling, analysis (linear dynamic and static), design (for gravity and lateral loads), drafting of existing and new steel structures

Publications:

Peer Reviewed Journals

1) **Yarra**, S., Gordaninejad, F., Behrooz, M., & Pekcan, G. (2019). Performance of natural rubber and silicone-based magnetorheological elastomers under large-strain combined axial and shear loading. *Journal of Intelligent Material Systems and Structures*, 30(2), 228-242. https://doi.org/10.1177/1045389X18808393
2) **Yarra**, S., Gordaninejad, F., Behrooz, M., Pekcan, G., Itani, A. M., & Publicover, N. (2018). Performance of a large-scale magnetorheological elastomer–based vibration isolator for highway bridges. *Journal of Intelligent Material Systems and Structures*, 29(20), 3890-3901. https://doi.org/10.1177/1045389X18799493

Conference Papers

3) Yarra, S., Pekcan, G., & Gordaninejad, F. (2020, May). Modeling the behavior of magnetorheological elastomers under different loading conditions. In *Active and Passive Smart Structures and Integrated Systems IX* (Vol. 11376, p. 113760H). International Society for Optics and Photonics.
4) Yarra, S., Pekcan, G., Behrooz, M., & Gordaninejad, F. (2017, June). Characterization of carbon black-filled natural rubber and silicone magnetorheological elastomers under pure shear loading. In *8th ECCOMAS thematic conference on smart structures and materials, Madrid* (pp. 860-870).
5) Yarra, S., Behrooz, M., Pekcan, G., Itani, A., & Gordaninejad, F. (2017, April). A large-scale adaptive magnetorheological elastomer-based bridge bearing. In *Active and Passive Smart Structures and Integrated Systems 2017* (Vol. 10164, p. 1016425). International Society for Optics and Photonics.
6) Behrooz, M., Yarra, S., Mar, D., Pinuelas, N., Muzinich, B., Publicover, N. G., ... & Gordaninejad, F. (2016, April). A self-sensing magnetorheological elastomer-based adaptive bridge bearing with a wireless data monitoring system. In *Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems 2016* (Vol. 9803, p. 98030D). International Society for Optics and Photonics.
7) McMullin, K., Ortiz, M., Yarra, S., Nagar, P., Patel, L., & Ma, T. (2014). "Static experimental testing to define force-deformation relationships of precast concrete cladding building façade systems", 10/01/2011-09/30/2012, ASCE" Proceedings, 2014 Structures Congress", 2014, "Boston, MA, April".
8) Takhirov, S., Mosalam, K., Yarra, S., Peralta, N., Fujisaki, E., & Ho, H. (2013, May). Full-scale Experimental and Numerical Study of Concrete Ductbanks and Assessment of their Seismic Vulnerability. In *Proceedings of the SE-50EEE, International Conference on Earthquake Engineering* (pp. 29-31).
9) McMullin, K. M., Ortiz, M., Patel, L., Yarra, S., Kishimoto, T., Stewart, C., & Steed, B. (2012). Response of Exterior Precast Concrete Cladding Panels in NEESTIPS/NEESGC/ E-Defense Tests on a Full Scale 5-Story Building. Proceedings, Structures Congress 2012, Chicago, Illinois, United States: pp. 1305-1314.

Funded Proposals:

- Research Grant ($2148.0), Graduate Student Association (GSA), “Characterization of an Isotropic Adaptive Material for vibration control of structural and nonstructural system”, University of Nevada-Reno, 08/14/2017 – 06/30/2018.
- Research Grant ($1450.0), Graduate Student Association (GSA), “Characterization of an adaptive material for vibration control of structural and nonstructural system”, University of Nevada-Reno, 11/21/2016 - 06/30/2017.

Awards, Grants, Scholarships, and Honors:

- College of Engineering Scholarship ($4500), Engineering Differential School, University of Nevada-Reno (UNR), Academic Calendar Year 2017-2018.
- GR IM Access Grant ($1250), "Regents' Higher Education Opportunity Award", University of Nevada-Reno (UNR), Academic Calendar Year 2017-2018.
- Travel Award ($500), Graduate Student Association (GSA), University of Nevada-Reno (UNR), spring 2017.
- College of Engineering Scholarship ($4000.0), Engineering Differential School, University of Nevada-Reno (UNR), Academic Calendar Year 2016-2017.
- GR IM Access Grant ($2000), "Regents' Higher Education Opportunity Award", University of Nevada-Reno (UNR), Academic Calendar Year 2016-2017.
- Travel Award ($450), Graduate Student Association (GSA), University of Nevada-Reno (UNR), spring 2016.
- International Grad Student Scholarship ($625), Office of International Students and Scholars, University of Nevada-Reno (UNR), spring 2016.

Licenses and Certifications:

- Engineer-In-Training in Civil Eng. (E.I.T), Certificate number 136960, State of California, 2009.
- College Reading and Learning Association - Regular Tutoring Certificate, San Jose State University, 2009.
- College Reading and Learning Association - Advanced Tutoring Certificate, San Jose State University, 2009.