

2021	Outstanding Graduate Award , Department of Civil Engineering, UNM
2019	Featured graduate student on UNM School of Engineering Annual magazine
2017-2019	Linda E. Jenett scholarship
2018	Organizer, 16th International Congress on Polymers in Concrete, D.C.
2017	Recipient of the AREMA National Education Scholarship
2017	2nd Place in UNM STEM Research Symposium
2016	2nd Place in AREMA Poster Competition
2016	School of Engineering scholarship
2016	Doctoral Conference Program Award
2016	STEM Honorarium for undergraduate mentorship
2015	Graduate student speaker in School of Engineering, UNM graduation ceremony
2014	Second prize for technical presentation

Invention

Reda Taha M., Vemuganti S., Stormont J., Han S. M., Dewers T., Pyrak-Nolte L. J., "Cementitious Sensors Exhibiting Stopbands in Acoustic Transmission Spectra and Methods of Making", STC Technology Ref. No. 2019-017

Bibliography

Peer Reviewed Publications

Vemuganti, S., John C. Stormont, Laura J. Pyrak-Nolte, Thomas Dewers, and Mahmoud Reda Taha (2021) "Cement sensors with acoustic bandgaps using carbon nanotubes." Smart Materials and Structures [Link](#)

Vemuganti, S., Rahman, M.K., Reda Taha, M. M. (2019). Evolution of Elastic Modulus and Creep of Nanoclay Modified Cement Cured Under High Temperature and Pressure, ACI Special publication on Nanomaterials [Link](#)

Vemuganti, S., Chennareddy, R., Riad. A., Reda Taha, M. M. (2020). Pultruded GFRP reinforcing bars with nanomodified resin Materials 13, no. 24 (2020): 5710. [Link](#). *Editor's Choice Paper Award*

Vemuganti, S., E. Soliman, Reda Taha, M. M. (2020). 3D-Printed Fiber Reinforced Polymer (FRP) Composites with Discrete Fiber Orientations, MDPI Fibers Journal 2020 [Link](#). *Cover of Issue 9, Volume 8, 2020*

Conference presentations and papers

Vemuganti, S., J C Stormont, L J Pyrak-Nolte, T Dewers and M M Reda Taha., Smart Acoustic Cement Sensors Incorporating Carbon Nanotubes, American concrete institute (ACI) Spring Virtual Convention, March 2021 [Link](#)

Vemuganti, S., Stormont, J., Han, S.M., Dewers, T. and Pyrak-Nolte, L.J., Reda Taha, M. M. (2018) "Cementitious Sensors with Acoustic Stopbands Using Carbon Nanotubes", Proceedings of Sixth International Symposium on Nanotechnology in Construction, NICOM6, Hong Kong, China.

Rahman, M. K., *Vemuganti, S.*, Reda Taha, M. M., (2018) "Elastic and viscoelastic properties of nanoclay modified oil well cement", Proceedings of Sixth International Symposium on Nanotechnology in Construction, NICOM6, Hong Kong, China.

Vemuganti, S., Cementitious Sensors Exhibiting Stopbands in Acoustic Transmission Spectra, UNM Shared Knowledge Conference poster showcase, 2018 [Link](#)

Moreu, F., Bleck, B., *Vemuganti, S.*, Rogers, D., & Mascarenas, D. (2017). Augmented reality tools for enhanced structural inspection. Structural Health Monitoring 2017, (SHM) [Link](#)

Vemuganti, S., Ozdagli, A., Liu, B., Bajric, A., Moreu, F., Brake, M. R., & Troyer, K. (2017). Sensing and rating of vehicle–railroad bridge collision. In Dynamics of Civil Structures, Volume 2 (pp. 227-234). Springer, Cham [Link](#)

Vemuganti, S., & Moreu, F. (2017). Survey about Bottom Surface Abrasion of Concrete Crossties (No. 17-06121) [Link](#)

Gomez, L., *Vemuganti, S.*, & Moreu, F. (2017). Invited Student Paper-Cyber-Physical Systems Related to Historic Infrastructure Maintenance (No. 17-06016) [Link](#)

Vemuganti, S., & Moreu, F. (2017). Survey about Bottom Surface Abrasion of Concrete Crossties (No. 17-06121) [Link](#)

Vemuganti, S., Ozdagli, A., Liu, B., Bajric, A., Moreu, F., Brake, M. R., & Troyer, K. L. (2016). Impact Rating System for Vehicle Railway Bridge Collision (No. SAND2016-11012C). Sandia National Labs. (SNL-NM), Albuquerque, NM [Link](#)

Ozdagli, A. I., Moreu, F., Gomez, J. A., Garp, P., & *Vemuganti, S.* (2016) Data Fusion of Accelerometers with Inclinometers for Reference-free High-Fidelity Displacement Estimation. In 8th European Workshop on Structural Health Monitoring [Link](#)

Teaching

Spring 2022	Materials, CEES 3403
Fall 2022	Fiber Reinforced Polymer (FRP) Composites Design (New Course)
Fall 2017 - 2019	CE 305 Infrastructure Material Science Laboratory, UNM
Spring 2017	CE 371 Structures for Construction, UNM
Fall, 2016	CE 302 Mechanics of Materials, UNM
Spring, 2016	CE 498/598 Advanced Structural Dynamics, UNM

Guest Lectures and Invited Talks

Fall 2021	CEES Seminar
Fall 2021	CEES 3414 Structural Analysis
Fall 2021	CEES 1112 Intro to CEES
Spring 2021	CE 160 Civil Engineering Design

Thesis and Dissertation Committee

Present	Clay Reed, MS Thesis: Evaluation of the service life of ultra-high-performance concrete as a building material for link slab bridge joints.
Present	Dip Banik, MS Thesis: Assessment of Ultra-High-Performance-Concrete (UHPC) Properties Using Different Steel and Synthetic Fibers
Present	Brackett Stone, MS Thesis: Modeling and Designing a Vertical Isolation System Using Properties of Negative Stiffness
Present	Esteban Villalobos Vega, Ph.D. Dissertation: 3D-seismic isolation systems and Real-Time Hybrid Simulation (RTHS) tests

Editorial and Honorary Society Positions

Secretary	American Concrete Institute 241-TG2 Nanoscale Fiber Reinforced Concrete
Leader	Alda Center's Women in STEM Leadership Program
Mentor	Oklahoma Louis Stokes Alliance for Minority Participation
Co-editor	Special issue in journal of recent progress in materials Link
Reviewer	Journal of Rock Mechanics and Geotechnical Engineering
Reviewer	Journal of Case Studies in Construction Materials
Reviewer	Journal of Composite Materials
Reviewer	Journal of Materials in Civil Engineering
Member	American Concrete Institute
Member	ACI Committee 241, Nanotechnology of Concrete
Member	American Society of Civil Engineers
Member	Women in Engineering, OU

Institutional Service

Present	CEES Structural Engineering Faculty Search Committee
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Outreach

2014-2019	School of Engineering open house, UNM
2018	Laboratory visit, Hoover Middle School
2017	Dream Builders at the National Hispanic Cultural Center
2016	STEM Outreach activities to encourage women into Science
2016	Workshop/ hands-on engineering learning sessions with 25 middle school students
2016	Shake it up in Engineering, STEM class
2015	La Cueva high school, Albuquerque, New Mexico