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I. Education

PhD Architectural Engineering–Structural Engineering, Penn State University 2004
 M.S. Architectural Engineering–Structural Engineering, Penn State University, 2001
 B.Arch Architecture (Technical), Middle East Technical University, Ankara, Turkey, 1999

II. Appointments

07/21-Present	Chair and Professor, School of Building Construction, Georgia Institute of Technology		
08/13-07/21	Associate Director, Durham School of Architectural Engineering and Construction, UNL		
04/17-06/21	Professor, Durham School of Architectural Engineering and Construction, UNL		
08/19-01/20	Senior Researcher, National Concrete Masonry Association, (On faculty development leave)		
08/10-04/17	Associate Professor, Durham School of Architectural Engineering and Construction, UNL		
08/12-05/13	Senior Structural Engineer, Leo A. Daly Architecture/Engineering Company, Omaha (On		
	faculty development leave from UNL)		
08/04-08/10	Assistant Professor, Durham School of Architectural Engineering and Construction, UNL		
5/05-8/05	Visiting Structural Engineer, Leo A. Daly Architecture/Engineering Company, Omaha		
07/99-08/04	Research and Teaching Assistant and Weiss Fellow, Pennsylvania State University		
*Internship positions during undergraduate education are not listed, but available upon request.			

III. Professional Registrations

Professional Engineer (CIVE/Structural), State of Virginia, No. 0402051604

IV. Leadership Training

- 1. Mindful Leadership Training, October 2023, Institute for Mindful Leadership https://instituteformindfulleadership.org/
- 2. Leading Women @Tech, 2022 Cohort Member

https://diversity.gatech.edu/faculty-staff/leadership-strategy-and-culture/leading-womentech

- 3. Big Ten Academic Alliance Academic Leadership Program (ALP) Fellow: 2018-19 https://executivevc.unl.edu/faculty/leadership-development/alp-fellows
- 4. UNL College of Engineering William E. Brooks Engineering Leadership Fellow (2014- 2018)

V. Leadership and Administrative Experience

1. Chair of the School of Building Construction at Georgia Tech

School of Building Construction at Georgia Tech now offers 6 degrees in undergraduate and graduate levels: Bachelor of Science in Construction Science and Management, Minor in Sustainable Development and Construction, Master of Science in Building Construction and Facility Management, Masters of Real Estate Development, Professional Masters in Occupational Safety and Health, and PhD in Building Construction. As the Chief Academic and Administrative officer for the School- I manage its \$2M individual state budget and all GT foundation gifts dedicated to this School; supervise over 20 faculty, 3 professional staff, and multiple student staff as direct reports; manage a large advisory board (which I revitalized); and oversee over 200

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students pursuing our degrees. My key list of accomplishments as Chair since I started in July 1, 2021 include, but are not limited to:

- Grew our recently revitalized undergraduate program by 270 % (14 students in Fall 2021 to 52 in Fall 2023)
- Hired four new full-time faculty, which is a growth by 44%; and currently have one more full-time faculty position open, which will result in a 56% increase in full time faculty in three years
- Recruited new part-time lecturers and ensured they become an integral part of our community with inclusion in our website and all faculty meetings; and if they desire, faculty hotel space use in our building
- Increased core staff size by 50%, and ensuring a more streamlined staff work share flow
- Created an interdisciplinary industry advisory board formed of general contractors, design-build firms, and developers with over 45 members
- Created a fall career fair that grew exponentially: 16 companies in Fall 2021 to 55 companies this fall
- Created a summer camp for high school students, which doubled in size between Summer 2022 and 2023
- Created a Student Leadership and Advisory Board (SLAB), with representation from all of our degree
 programs to ensure the students have a direct channel of communication with the Chair to voice their
 concerns and share their ideas. I meet with them weekly. This resulted in also forming two campus-wide
 official student organizations that I advise: Student Construction Association (SCA) and Solar Decathlon at
 Georgia Tech (SDGT).
- Established a **new minor** in Sustainable Development and Construction, which is growing rapidly in popularity
- Secured funding to insert Sustainable Design Goals into all of our new minor courses and most of our major courses.
- Established <u>a dual degree agreement</u> with an all-access community college (Georgia Highlands College) to expand access and diversity of our program
- Led a <u>degree name change for our undergraduate program</u> through review of peer programs, as well as surveys and interviews with students, faculty, industry, and alumni. New degree name: BS in Construction Science and Management (Former name: BS in Building Construction)
- Fundraised to launch three digital marketing campaigns and several new scholarships
- Started the ACCE accreditation process for our new undergraduate degree
- Encouraged and supported our faculty and students to participate in the regional ASC competition (at which the Georgia Tech student team took 1st place in fall 2022)
- Supported three faculty to attend ASC bootcamps and two faculty to attend NCFDD Faculty Success Program
- Established faculty, student, alumni awards to celebrate successes and motivate a culture of collaboration and mentorship.
- Established a new tradition of the <u>Annual BC Banquet</u> that bring our community together, improve alumni connections, and celebrate our successes.
- Established an annual conference and started a unique collaboration with ULI Atlanta: Real Estate Development (RED) conference. Learn more here.

2. Associate Director for Architectural Engineering at UNL

Durham School of Architectural Engineering and Construction (DSAEC) at University of Nebraska includes three degree-granting programs: Architectural Engineering, Construction Management, and Construction Engineering. While the School administratively belongs to the Lincoln campus (University of Nebraska-Lincoln, or UNL), 2/3rd of the DSAEC is physically located in Omaha, due to the significant presence of related industry in the city. During my tenure there, DSAEC was led by the Director, assisted by two academic Associate Directors (one each for AE and Construction) and an Associate Director of Operations. Since fall of 2013, I have been serving as the AE Program Coordinator, later titled Associate Director. In this role, along with *many* other smaller tasks, I performed the following key duties, along with many smaller daily tasks:

- Chair all AE faculty meetings, ensure the effectiveness of the AE curriculum
- Chair AE Industry Advisory Board meetings (twice a year)
- Facilitate the course/instructor/TA assignments each semester
- Perform annual evaluations of all AE faculty
- Successfully led AE Program's 2017 ABET accreditation and compiled the Program's Self Study
- Organize and ensure the productivity of all AE committees
- Serve as the first point of contact for current and prospective AE students
- Conduct exit interviews with <u>all</u> AE graduates
- Lead or participate in all AE outreach and celebratory events
- Serve on the DSAEC Executive Council and participate in the policy development and key decisions for the entire School
- Represent the Nebraska AE program in the national Academic Council of AE Programs

Nebraska AE program is typically recognized as one of the top AE programs in the nation offering a wide breadth of specializations (structures, mechanical/acoustical systems, lighting/electrical systems), and it is one of the very few that grants all degrees in AE (Bachelor's, Master's, and PhD). One of the ways the top tier status of the Nebraska AE program can be evidenced is by the many national awards and recognitions the AE program received recently (list available upon request).

3. 14NAMC Conference Chair

I was the chair of the 14th North American Masonry Conference that was held in Omaha, Nebraska, June 2023. I was selected as the chair of the next conference in 2018 through a competitive process by The Masonry Society (TMS), and worked with a committee on the preparations for 4 years to bring it to fruition. Despite my move to Georgia during this process, we ran a successful conference that brought together over 200 academics and professionals, and over 100 technical, peer-reviewed papers were presented. Proceedings and a book of abstracts are published.

4. Chair of the Task Force on Diversity and Inclusion for College of Engineering, UNL

In Spring 2019, I was asked by the Dean of the College of Engineering (CoE) to chair a task force on Diversity and Inclusion (D&I). In this effort, I led a team of 9 other individuals (six faculty representing the other 6 CoE units and three students) to: 1) research the state-of-the-art literature on D&I, 2) document the current stature of UNL-CoE with respect to peers and national data, and most importantly, 3) identify and recommend actionable initiatives to the Dean for improvements in this area. We finished and submitted this report in Spring 2020. *Please refer to my diversity statement for a further discussion on this topic*.

5. Chief Editor- ASCE Journal of Architectural Engineering

Journal of Architectural Engineering (JAE) is one of the main technical journals of the American Society of Civil Engineers (ASCE). I served as the Editor-in-Chief of this journal for over 8 years and my team significantly improved the quality and the reputation of the journal.

6. Global Initiatives Coordinator

Given my significant international research and education activities, I was appointed as the Durham School Global Initiatives Coordinator between 2011-2013. In this role, I developed policies for travel funding for Durham School students and led the awarding process, helped other faculty develop international programs, strengthened semester exchange programs with the Leed University in UK, among other achievements.

7. Structures Option Faculty Leader

Nebraska AE program has a very strong structures track, however, to avoid duplication of efforts all structural engineering courses are taught collaboratively with Civil Engineering (a separate department at Nebraska). As such, during my entire time at UNL, I was the only Structures Faculty affiliated solely with the Durham School. This meant that I had an important role with respect to the Structures-track curriculum, maintaining collaborations with CIVE, and most importantly, serving as the career adviser for all AE-

Structures students. Given Nebraska-AE is accredited at the Master's level, this was a significant task until recently, as all students had to produce a Master's report and I served as the advisor of 47 of these students (See section IX-D) and chaired <u>all</u> of the MAE Structures final oral exam meetings.

8. Other Leadership Roles

- a. CANUS project leader: Appointed as a senior researcher for the National Masonry Concrete Association (NAMC) during my faculty development leave in Fall of 2019, I was the USA-Team leader for the Project titled "CANUS: Harmonization of Canadian and American Masonry Structures Design Standards Project". In this leadership role, I led the seven academic and industry professionals from USA as well as served the academic leader for the overall project including 7 other professionals from Canada. Outcomes of the project include 5 conference articles, 5 journal articles, a report through CSA in Canada, and a research needs document.
- b. **ARCHES Workshop Organizer and Chair:** I raised funds from NCPPT and industry partners, organized, and chaired a three-day think-tank type international workshop in 2016 on "Assessment, Rehabilitation, and Conservation of Historical and Existing Structures (ARCHES). Based on the follow-up survey, all participants found the effort fruitful and workshop successful. Research and education needs in the area of Assessment and Rehabilitation of Historic Construction are identified.
- c. **US-Turkey Research Collaboration:** I have been serving as the International Research Program Leader that involves two academic institutions and two archeological sites in Turkey since 2005 (*Antioch ad Cragum and Blaundos*). Under this program international and interdisciplinary research program, twice funded by NSF, I brought numerous American students to Turkey.
- d. Study Abroad/Engineering in Italy Faculty Leader at UNL: I led a summer study abroad program available to all engineering majors between 2008 and 2019. 20-25 students participated in this program every year of its offering. This is another program that showcases my managerial/organizational skills in a complex setting, resourcefulness, and most importantly, my commitment to the development of *cultural intelligence*¹ of engineering and construction management students.

VI. Honors and Awards

A. NATIONAL AWARDS/HONORS

- 1. Class of 2022 "Influential Women in Real Estate and Land Use (<u>The Leaders*</u>)" by Women's Leadership Institute (WLI), Urban Land Institute (*Recently this title has been changed to "Change Makers")
- 2. Engineering Georgia Magazine 50 Notable Women in Engineering and Land Development Honor: I was listed as one of the 50 notable women of engineering and land development professionals in Georgia in the March/April 2022 issue of Engineering Georgia Magazine.
- 3. 2019 Architectural Engineering Institute (AEI)- Architectural Engineering (AE)
 Outstanding Educator Award: An honor given to one faculty per year <u>nationally</u> to celebrate outstanding achievement in Architectural Engineering education.
- 4. **2018 Rising Star in Structural Engineering: Civil + Structural Engineer magazine:** The Rising Stars in Structural Engineering program recognizes structural engineers 40 years old or younger working in the United States who have shown exceptional technical capability, leadership ability, effective teaching or research, and/or public service benefiting the structural engineering profession, their employers, project owners, and/or society.
- 5. 2013 Tau Beta Pi Honor Awarded

¹ Earley, P.C. and Mosakowski, E. (2004). "Cultural Intelligence," Harvard Business Review, October 2004. https://hbr.org/2004/10/cultural-intelligence

B. TEACHING, MENTORING, AND SERVICE AWARDS

- 2019 Architectural Engineering Institute (AEI)- Architectural Engineering (AE) Outstanding Educator Award
- 2. 2018, UNL College Distinguished Teaching Award
- 3. 2018, COE Holling Family Master Teacher Award
- 4. 2014, College of Engineering Holling Family Distinguished Teaching/Advising/Mentoring Award.
- 5. 2013, College of Engineering Holling Family Distinguished Senior Faculty Teaching Award
- 6. 2011, UNL College of Engineering Faculty Service Award Associate Professor Level
- 7. 2010, Architectural Engineering Mentoring Award, Architectural Engineering Student Leadership and Advisory Committee
- 8. 2008, Outstanding Contribution to Undergraduate Research, Awarded by the Office of Undergraduate Studies and UNL Undergraduate Creative and Research Activities (UCARE) Program, nomination by student: Mary Naughtin
- 9. 2007, Architectural Engineering Teaching Award, Architectural Engineering Student Leadership and Advisory Committee, In recognition of outstanding teaching of Architectural Engineering students
- 10. 2006, Henry Y. Kleinkauf Family Distinguished New Faculty Teaching Award, Henry Y. Kleinkauf Family, College of Engineering, Awarded for achievements in teaching.
- 11. 2004-2003, Outstanding Graduate Assistant Teaching Award, Pennsylvania State University, for outstanding teaching performance.

C. RESEARCH AWARDS AND RECOGNITION

- ASCE- AEI Award for the <u>Best Paper of the 2013 Architectural Engineering Conference</u> for the papers "Material Condition and Deterioration Assessment Program for a 3rd Century Roman Temple," by Erdogmus, E., Freedland, J., Jording, A.*, Kousgaard, A.*, Buckley C.M.* (2013).
- ASCE-AEI Award for the <u>Best Journal Article</u> in 2008 for the paper "Structural Appraisal of the Florentine Gothic Construction System," by Erdogmus, E., Boothby, T.E.; published in *the Architectural Engineering Journal*, 2007, ASCE, 13(1), 9-17.
- ASCE-AEI award for <u>Best Structural Paper Presented at the 2008 Architectural Engineering Conference</u> for the paper "Use of Ground Penetrating Radar for Accurate Concrete Thickness Measurements," Authors: Meyer, K.*, Erdogmus, E., Morcous, G., Naughtin, M.¹ (2008).

VII. Publications

*Denotes students/research assistants/postdocts under Erdogmus' supervision.

A. BOOK CHAPTERS

- 1. Erdogmus E. Masonry Designers Guide, 2022 Edition, Chapter 3- Materials. Edited by Richard M. Bennett, the Masonry Society
- 2. Townsend,R. and Erdogmus, E. "Materials and Techniques of Construction in the Northeast Temple at Antiochia ad Cragum," Emanuela Borgia, ed., Southeastern Anatolia at a Crossroads: a Multicultural Mediterranean Area from the Hellenistic to the Early Byzantine Period (Oxford, England: Archaeopress).
- 3. Antiocheia ad Cragum, 15 Year Anniversary Book. (in progress).

B. PEER-REVIEWED JOURNAL ARTICLES IN PRINT

- Surendran, A. V.; Singh, K.; Pulatsu, B.*; Gonen, S; Biggs, D.; Erdogmus, E. (2023). "Effect of opening size in unreinforced masonry walls subjected to lateral loads: Computational modeling and code comparison," *Journal of Engineering Mechanics*, Volume 149, Issue 7, https://doi.org/10.1061/JENMDT.EMENG-693
- 2. Ma, J.H.*, **Erdogmus E.**, Cha S.H. (2023). "Integration of a choice modeling approach with immersive virtual environments for accurate space utilization prediction," Journal of Building Engineering, DOI: 10.1016/j.jobe.2023.107126
- Ismail A.*, Erdogmus E., Yang E., Porter R., Boron J. B. (2023) "Beyond Physical Accessibility for Inclusive Age-Friendly Homes: Insights from a Comparative Study of Two Residential Developments,", *Journal of Architectural Engineering*, Volume 29, Issue 4, ASCE. https://doi.org/10.1061/JAEIED.AEENG-1530
- 4. Keskin, E.*, Yang, E., Tanrivermis, H., **Erdogmus, E.** (2023). "Facility management perspective in urban transformation projects: the opportunities and challenges in Turkey," Facilities, 41 (3/4): 248-264. DOI: 10.1108/F-04-2022-0062
- 5. Yang E, Ismail A*, Kim Y, **Erdogmus E**, Boron J, Goldstein F, DuBose J, Zimring C. (2022). "Multidimensional environmental factors and sleep health for aging adults: A focused narrative review," *Int. J. Environ. Res. Public Health* 2022, 19, 15481. https://doi.org/10.3390/ijerph192315481
- 6. Hoff, E*., Erdogmus, E. (2022). "Quantitative Appraisal of the Sustainability of Compressed Stabilized Earthen Masonry," *The Masonry Society Journal*, December 2022.
- 7. Spitzer, B.O.*; Ma, J.H.*; **Erdogmus, E.**; Kreimer, B.; Ryherd, E.; Diefes-Dux, H. (2022). "Framework for the Use of Extended Reality Modalities in AEC Education". *Buildings* 2022, 12, 2169. https://doi.org/10.3390/buildings12122169
- 8. Gonen S, Pulatsu B*, **Erdogmus E**, Lourenço PB, Soyoz S. (2022). "Effects of Spatial Variability and Correlation in Stochastic Discontinuum Analysis of Unreinforced Masonry Walls", *Construction and Building Materials, Volume 337, June 2022*, https://doi.org/10.1016/j.conbuildmat.2022.127511
- Pulatsu B*, Gonen S, Parisi F, Erdogmus E, Tuncay K, Funari M, and Lourenço PB. (2022).
 "Probabilistic Approach to Assess URM Walls with Openings using Discrete Rigid Block Analysis (D-RBA)", Journal of Building Engineering, 61 (2022), September, 2022.
 https://doi.org/10.1016/j.jobe.2022.105269
- Hall, E.*; Pulatsu, B*; Erdogmus, E; Skourup, B. (2022). "Compression, Tension and Fracture Energy Properties of Compressed Cement-Stabilized Earth Blocks", *Journal of Architectural Engineering*, 28 (1), 2022, doi:10.1061/(ASCE)AE.1943-5568.0000524
- 11. Al Lawati, J., Erdogmus, E., Young, D., Al Dughaishi, H., Alosta, M., Al-Khafaji, Z., Yaseen, Z.H., Milad, A. (2022). "Hybrid Timber Concrete Composite Slab for Analysis of Lag Screw Embedment Connections," Advances in Civil Engineering, DOI: 10.1155/2022/5456804
- 12. Ehresman, R.*, Taylor, N.*, Pulatsu, B.*, Erdogmus, E. (2021). "Discrete Rigid Block Analysis to Assess Settlement Induced Damage in Unreinforced Masonry Façades," *Civil Eng 2021*, 2(3), 541-555, https://doi.org/10.3390/civileng2030030
- 13. Pulatsu, B.*, Gonen, S., Erdogmus, E., Lourenço, P. B., Lemos', J. V. and Prakash, R. (2021). "In-Plane Structural Performance of Dry-Joint Stone Masonry Walls: A Spatial and Non-Spatial Stochastic Discontinuum Analysis," *Engineering Structures 242 (2021) 112620. DOI:* https://doi.org/10.1016/j.engstruct.2021.112620

- 14. Amiri, A.S.*, Erdogmus, E., Richter-Egger, D. (2021). "A Comparison between Ultrasonic Guided Wave Leakage and Half-Cell Potential Methods in Detection of Corrosion in Reinforced Concrete Decks, Signals 2(3), 413-433. https://doi.org/10.3390/signals2030026
- 15. Gonen, S., Pulatsu, B.*, Soyoz, S., Erdogmus, E. (2021) "Stochastic Discontinuum Analysis of Unreinforced Masonry Walls: Lateral Capacity and Performance Assessments," *Engineering Structures*, 238 (2021) 112175, https://doi.org/10.1016/j.engstruct.2021.112175
- Sondag, T.*, Erdogmus, E., Puckett, J. (2021). "Evaluation of the Dynamic Behavior of Steel Staircases with Concrete Filled Pan Threads" *Journal of Architectural Engineering, ASCE*. DOI: 10.1061/(ASCE)AE.1943-5568.0000464
- 17. Gonen, S., Pulatsu, B.*, Erdogmus, E., Karaesmen, Engin, and Karaesmen Erhan. (2021). "Quasi-Static Nonlinear Seismic Assessment of the 4th Century A.D. Roman Aqueduct in Istanbul, Turkey."

 Accepted for publication in the Heritage Journal. doi.org/10.3390/heritage4010025
- 18. Pulatsu, B.*, Gencer, F., Erdogmus, E. (2020). "Study of the Effect of Construction Techniques on the Seismic Capacity of Ancient Dry-Joint Masonry Towers through DEM," *European Journal of Environmental and Civil Engineering*. DOI: 10.1080/19648189.2020.1824823
- 19. McCabe, T.*, Erdogmus, E., Kodsy, A., and Morcous, G., (2021). "Early Detection of Honeycomb in Concrete Pavements Using GPR," ASCE Journal of Performance of Constructed Facilities, Volume 35, Issue 1, February 2021. ASCE. DOI: 10.1061/(ASCE)CF.1943-5509.0001547
- 20. Pulatsu, B.*; Gonen, S.; Erdogmus, E.; Lourenço, P.B.; Lemos, J.V.; Hazzard, J. "Tensile Fracture Mechanism of Masonry Wallettes Parallel to Bed Joints: A Stochastic Discontinuum Analysis." Modelling 2020, 1, 78-93.
- 21. Atar, T.*, McCabe, T.*, Pulatsu, B.*, Erdogmus, E. "Dynamic analysis of Semi-Circular Masonry Arches: Small-Scale Experiment and Discrete Element Modeling," WSEAS Transactions on Computers, ISSN / E-ISSN: 1109-2750 / 2224-2872, Volume 19, 2020, Art. #19, pp. 137-142. DOI: 10.37394/23205.2020.19.19
- 22. Erdogmus, E., Garcia, E*., Schuller, M., Amiri, S.A. (2020). "A Novel Structural Health Monitoring Method for Reinforced Concrete Bridge Decks Using Ultrasonic Guided Waves," *Infrastructures 2020*, 5, 49.
- 23. Pulatsu, B.* Erdogmus, E., Lourenco, P.B., Lemos, J.V., Tuncay, K. (2020). "Simulation of the In-Plane Structural Behavior of Unreinforced Masonry Walls and Buildings using DEM," *Structures*, Volume 27, October 2020, pp. 2274-2287, DOI: 10.1016/j.istruc.2020.08.026
- Pulatsu, B.*, Erdogmus, E., Lourenço, P.B., Lemos, J.V., Tuncay, K.(2020). "Numerical Modeling of the Tension Stiffening in Reinforced Concrete Members via discontinuum models," Comp. Part. Mech. (2020). https://doi.org/10.1007/s40571-020-00342-5
- 25. Erdogmus, E., <u>Pulatsu, B.*</u>, Gaggioli, A. and Hoff, M. (2020). "Reverse engineering a fully collapsed ancient temple through geoarchaeology and DEM" *International Journal of Architectural Heritage*, 1:21, 2020. DOI: 10.1080/15583058.2020.1728593
- Pulatsu, B.*, Kim, S., Erdogmus, E. and Lourenço, P.B. (2020). "Advanced analysis of masonry retaining walls using mixed discrete-continuum approach" *Geotechnical Engineering*, 1:34, 2020. <u>DOI:</u> 10.1680/jgeen.19.00225
- Pulatsu, B.*, Erdogmus, E., Lourenço, P.B., Lemos, J.V., and Hazzard J. (2020). "Discontinuum analysis of the fracture mechanism in masonry prisms and wallettes via discrete element method" Meccanica, 55 (3), 505-523. 2020. <u>DOI: 10.1007/s11012-020-01133-1</u>
- 28. Pulatsu, B.*, Erdogmus, E., and Lourenço, P. B., Quey, R. (2019). "Simulation of Uniaxial Tensile Tensile Behavior of Quasi-Brittle Materials Using Softening Contact Models in DEM". *International Journal of Fracture (FRAC)*, 217.1-2 (2019):105-125. https://doi.org/10.1007/s10704-019-00373-x
- 29. Erdogmus, E; Skourup, B; Garcia, E*; Matta, F. (2019). "Tornado Resistant Residential Design Using Experimentally Obtained Characteristic Values for Cement Stabilized Earthen Masonry",

- Journal of Architectural Engineering, 25 (2), (Published as part of the Special Collection on Residential Construction, Guest Editor: Ali Memari), DOI: 10.1061/(ASCE)AE.1943-5568.0000342
- 30. Pulatsu, B.*, Erdogmus, E., and Lourenço, P. B. (2019). "Comparison of in-plane and out-of-plane failure modes of masonry arch bridges using discontinuum analysis." *Engineering Structures*, 178(2019), 24–36.
- 31. Garcia, E.*, Erdogmus, E; Schuller, M., Harvey, D. (2019). "Detecting the Onset of Different Types of Flaws in Reinforced Concrete, *ACI Materials Journal*, 116 (1), January 2019, DOI: DOI: 10.14359/51710962
- 32. Pulatsu, B.*, Erdogmus, E., Bretas, E. (2018). "Parametric Study on Masonry Arches Using 2D Discrete Element Modeling," *Journal of Architectural Engineering*, 24(2), 2018. DOI: 10.1061/(ASCE)AE.1943-5568.0000305, (Published as part of the ARCHES Special Collection, Guest Editor: Carlo Citto).
- 33. Garcia, E.*; Erdogmus, E.; Schuller, M; Harvey, D (2017). "A Novel Method for the Detection of Onset of Delamination in Reinforced Concrete Bridge Decks," *ASCE Journal of Performance of Constructed Facilities, 31 (6)*, DOI: 10.1061/(ASCE)CF.1943-5509.0001093.
- 34. Kousgaard, A.* and Erdogmus, E, (2016). "A Review of Reconstruction Methods and Materials for Ancient Structures," *The Masonry Society Journal, Vol 34, No 1, December 2016,* The Masonry Society.
- 35. DeGagné, B*; Erdogmus, E; Savage, J. (2016). "Longitudinal Bar Spacing and Intermediate Ties: A Review of the development of ACI 318 provisions for column reinforcement," Concrete International, An international Journal by American Concrete Institute (ACI), Volume 38, Issue 5, 43-46, April 2016.
- 36. Colley, E*; Erdogmus, E (2015). "Effects of cement stabilization and fibers on the water resistance of compressed stabilized earth blocks", *The Masonry Society Journal, Vol 33*, No. 1, December 2015, The Masonry Society.
- 37. Erdogmus, E. (2015). "Use of Fiber-Reinforced Cements in Masonry Construction and Structural Rehabilitation," Fibers Journal, 2015, 3, 41-63; doi:10.3390/fib3010041, *(Invited Feature Paper).
- 38. Sorensen, A.* & Erdogmus, E. (2013) "Horizontal Support Displacement of a Thin-Tile Masonry Dome: Experiments and Analysis", Published Online Ahead of Print, ASCE Journal of Performance of Constructed Facilities, http://dx.doi.org/10.1061/(ASCE)CF.1943-5509.0000495.
- 39. Erdogmus, E.; Shen, Z.; Schaap, B. (2013). "Review of BIM in Small-Scale Sustainable Design by Francois Levy." Book Review Article, *ASCE Journal of Architectural Engineering*, Vol. 19, No. 3, pp. 217-218.
- 40. Sorensen, A.* and Erdogmus, E. (2011). "Study of Tile Layer Contribution of a Thin-Tile Masonry Dome", *The Masonry Society Journal*, Vol. 29, No. 1, December 2011, pp.63-74.
- 41. Armwood, C.K.*, Erdogmus, E. and Haider, H. (2011). "Effect of Fibers on the Flexural Strength of Masonry Mortars," *The Masonry Society Journal*, Vol. 29, No. 1, December 2011, pp. 19-32.
- 42. Radik, M*, Erdogmus, E., Schafer, T**. (2011). "Strengthening of Two-way reinforced concrete floor slabs using polypropylene fiber reinforcement," ASCE Journal of Materials in Civil Engineering, Volume 23, Number 5, pp. 562-571, May 2011.
- 43. Morcous, G., and Erdogmus, E. (2010). "Accuracy of Ground-Penetrating Radar for Concrete Pavement Thickness Measurement," *ASCE Journal of Performance of Constructed Facilities*, ASCE, 24 (6), November/December 2010.
- 44. Skourup, B. N.*, and Erdogmus, E. (2010). "Mechanical Characteristics of PVA Fiber-Reinforced PCL Mortars for Masonry Applications" *ACI Materials Journal*, Vol. 107, January-February 2010, No. 1., pp 1- 9, ACI publications.

- 45. Erdogmus, E., Skourup, B. N.*, Tadros, M. K. (2010). "Recommendations for design of Reinforced Concrete Pipe," *ASCE Journal of Pipeline Systems and Engineering, Inaugural Issue*, Vol. 1., No. 1, pp. 25-32. February 2010.
- 46. Maximos, H.*, Erdogmus, E., Tadros, M. K (2010). "Fatigue Evaluation of Reinforced Concrete Box Culverts, *ACI Structural Journal*, Vol. 107 No. 01, pp. 13-20, January-February 2010.
- 47. Sorensen, A.* and Erdogmus, E. (2010). "Study of System-Component Interactions in a Thin-Tile Masonry Dome," *the Masonry Society Journal*, V.28, No 1, January 2010, pp. 53-67.
- 48. Erdogmus, E. (2008). "Timbrel domes of Guastavino: Nondestructive Assessments on a Half-Scale Model," International Journal of Architectural Heritage, 2(4), 330-352, Taylor and Francis Group, LLC, Philadelphia, PA.
- 49. Erdogmus, E., Boothby, T.E. (2007) "Structural Appraisal of the Florentine Gothic Construction System," the Architectural Engineering Journal, ASCE, 13(1), 9-17. (Awarded best AEI Journal article in 2008).
- 50. Boothby, T. E., Yurianto, Y., Erdogmus, E. (2005), "Experimental Replication of Masonry Arch Bridge Spandrel Wall Collapse, *The Masonry Society Journal*," 23(1).
- 51. Erdogmus, E. and Boothby, T.E. (2004) "Strength of Spandrel Walls in Masonry Arch Bridges," *Transportation Record: Journal of the Transportation Research Board*, No. 1892, 47-55. Transportation Research Board of the National Academies, Washington, D.C.

C. PEER-REVIEWED JOURNAL ARTICLES SUBMITTED/ACCEPTED/UNDER REVIEW

- 1. Erdogmus, E; Thompson, J.; Banting, B.; Dutrisac, H.; Ledent, Philippe; Hughes, Kevin; Flisak, Bart (2023). "Canada/US Comparison of Reinforced Masonry: Overview and Design Examples," *The Masonry Society Journal*, under review
- 2. Erdogmus et al. "Canada/US Comparison of Masonry Beam Design and Detailing Provisions," *The Masonry Society Journal*, under review
- 3. Sustersic, Erdogmus et al. "Canada/US Comparison of Out-of-Plane Reinforced Masonry Wall Design Provisions, *The Masonry Society Journal*, under review
- 4. Erdogmus et al. "Canada/US Comparison of Reinforced Masonry Shear Wall and Seismic Design Provisions" *The Masonry Society Journal*, under review
- 5. Erdogmus et al. "Numerical Evaluation of the Applicability of the TMS402 Flexural Tensile Stress Values for Masonry Beams of Different Aspect Ratios", *journal choice pending*
- 6. *Ismail, A., Green, A., Bilau, I., Erdogmus, E., Yang, E., DuBose, J., Boron, J. B., & Goldstein, F. C. Sleep disparities: Identifying the impact of social risk factors on sleep quality and sleep environment in aging adults with mild cognitive impairment. Journal of Environmental Psychology (submitted on May 10, 2023)

D. PEER-REVIEWED CONFERENCE ARTICLES IN-PRINT OR ACCEPTED

- 1. Andrea Green*, Aliaa Ismail*, Ibrahim Bilau, Eunhwa Yang, Ece Erdogmus, Julie B. Boron, Felicia C. Goldstein. "Investigating the Sleep Quality Perception of African Americans with Mild Cognitive Impairment: A Descriptive Pilot Study, Journal of Sleep Health
- 2. *Green, A., Erdogmus, E., Yang, E., Goldstein, F., Boron J., Ismail, A., & Bilau, I. A. (2023, June). "Investigating sleep quality and environmental factors that impact the sleep of African Americans with mild cognitive impairment: A survey-based pilot study." Presented at the Environmental Design Research Association's 54th Annual Conference 2023.
- 3. Erdogmus, E., Biggs, D. (2023). "An Overview of the Design and Detailing of Masonry Beams Subjected to Torsion," *Proceedings of the 14th North American Masonry Conference*, June 2023, Omaha, Nebraska.

- 4. Rakici, S.*, Pulatsu, B.*, Erdogmus, E., (2023). "Predicting the Ultimate Force and Collapse Mechanism of Masonry Arches via Peridynamic Modeling," *Proceedings of the 14th North American Masonry Conference*, June 2023, Omaha, Nebraska.
- Spitzer, B.O.*, Erdogmus, E., Yoon, J.H., Irizarry, J., Kangisser, S*., Pishdad-Bozorgi, P., Kreimer, B. (2023). Triggering Career Interest in High School Students: A summer camp centered on Masonry Wall Construction and Advanced Technology Applications," *Proceedings of the 14th North American Masonry Conference*, June 2023, Omaha, Nebraska.
- 6. Erdogmus E.; Ryherd, E.; Diefes-Dux, H.; Armwood-Gordon, C. (2021). "Use of Virtual Reality to Improve Engagement and Self-Efficacy in Architectural Engineering Disciplines,' *Proceedings of the Frontiers in Education (FIE 2021)* Conference, October 13-16, 2021
- 7. Erdogmus, E., Turan, M., Freedland, J., Gaggioli, A, Hoff, M. (2021). "Characterization of Historic Mortar Samples for Period Analysis and Determination of Intervention Mortars: A Case Study," proceedings of SAHC 2021 International Conference on Structural Analysis of Historical Constructions, Barcelona, September, 2021.
- 8. Erdogmus, E.; Dutrisac, H.; Thompson, J.; and Banting, B. (2021). "Comparison of Selected CSA S304-14 and TMS 402-16 Reinforced Masonry Design Provisions and Material Properties." *Proc.*, 14th Canadian Masonry Symposium, Montreal, QC, Canada.
- 9. Erdogmus, E.; Cruz-Noguez, C.; Ledent, P.; Jobe, L.; Hughes, K.; Banting, B.; and Thompson, J. (2021). "Parametric Studies on Reinforced Masonry Shear Walls Resisting In-Plane Loads: A Comparison of CSA S304-14 and TMS 402-16." *Proc., 14th Canadian Masonry Symposium, Montreal, QC, Canada.*
- 10. Sustersic, H.; Stubbs, D.; Peterson, R.; Bennett, R.; Pettit, C.; Flisak, B.; Erdogmus, E.; Thompson, J.; Banting, B.; and Cruz-Noguez, C. (2021). "Parametric Studies on Reinforced Masonry Walls Resisting Out-of-Plane Loads: A Comparison of CSA S304-14 and TMS 402-16." Proc., 14th Canadian Masonry Symposium, Montreal, QC, Canada.
- 11. Erdogmus, E.; Bennett, R.; Thompson, J.; and Banting, B. (2021). "Parametric Studies on Reinforced Masonry Beams: A Comparison of CSA S304-14 and TMS 402-16." *Proc., 14th Canadian Masonry Symposium, Montreal, QC, Canada.*
- 12. Banting, B., Thompson, J., Dutrisac, H.; Ledent, P.; Hughes, K.; Flisak, B.; and Erdogmus, E. (2021). "Design Examples Demonstrating the Differences Between CSA S304-14 Limit States and TMS 402-16 Strength Design Provisions," *Proc.*, 14th Canadian Masonry Symposium, Montreal, QC, Canada.
- 13. Erdogmus, E., Pulatsu, B.*, Can, B., Ozkan, K. (2019). "Analysis of the Last Standing Arch of the Roman Aqueduct at Blaundos," *Proceedings of the 13th North American Masonry Conference, June 2019, Salt Lake City, Utah.*
- 14. Erdogmus, E., Freedland, J., Schuller, M., Turan, M., Townsend, R., Hoff, M. (2019). "Preventive Conservation Efforts and A Preliminary Preservation Management Plan for the Roman Temple at Antioch ad Cragum," Proceedings of the 13th North American Masonry Conference, June 2019, Salt Lake City, Utah.
- 15. Pulatsu, B.*, Erdogmus, E., Christiansen, J.*, Townsend, R., Butler, M.* (2019). "Discrete Element Analysis of the Seismic Behavior of an Ancient Roman Temple Façade," *Proceedings of the 13th North American Masonry Conference, June 2019, Salt Lake City, Utah.*
- 16. Pulatsu, B.*, Erdogmus, E., Lourenco, P.B. (2019). "Influence of soil-backfill depth on the strength and behavior of masonry arch bridges in the transverse direction," *Proceedings of the 13th North American Masonry Conference, June 2019, Salt Lake City*, Utah.
- Erdogmus, E. (2019). "Increased Global Awareness in Architectural Engineering Students through International Research Experiences" Proceedings of the Architectural Engineering Institute (AEI) 2019 Conference, Tysons, VA., April 3-6, 2019. ISBN (PDF): 9780784482261,

- https://ascelibrary.org/doi/book/10.1061/9780784482261
- 18. Pulatsu, B.*, Erdogmus, E., Bretas, E.M. Lourenco, P.B. (2019). "In-Plane Static Response of Dry-Joint Masonry Arch-Pier Structures," Proceedings of the Architectural Engineering Institute (AEI) 2019 Conference, Tysons, VA., April 3-6, 2019. ISBN (PDF): 9780784482261, https://ascelibrary.org/doi/book/10.1061/9780784482261
- 19. Raebel, C.H., Hasler, F., Erdogmus, E., Parfitt, K. (2019). "State of the Art of Architectural Engineering Education as a Contribution to the Foundation for the National Agenda: A Snapshot of Four Programs," Proceedings of the Architectural Engineering Institute (AEI) 2019 Conference, Tysons, VA., April 3-6, 2019. ISBN (PDF): 9780784482261, https://ascelibrary.org/doi/book/10.1061/9780784482261
- 20. Pulatsu, B. Erdogmus, E. Lourenco, P. (2019). "Discrete-continuum approach to assess 3D failure modes of masonry arch bridges," *Proceedings of the IABSE Symposium at Guimaraes, Portugal, March 27-29.*
- 21. Pulatsu, B. Erdogmus, E. Lourenco, P. (2018). "Simulation of Masonry Arch Bridges using 3D Discrete Element Modeling," Published in the Proceedings of 11th International Conference on Structural Analysis of Historical Constructions SAHC 2018, held in Cusco, Peru, September 2018.
- 22. Erdogmus, E., Kousgaard, A.*, Ryherd, E., Brown, S. (2017) "Does Gamer Personality Affect the Experience and Engagement of Architectural Engineering Sophomores in Fundamental Classes?" Proceedings of the 2017 Architectural Engineering Institute (AEI) Conference, March 2017, Oklahoma City.
- 23. Erdogmus, E., Fickle, K.*, Kousgaard, A.*, Freedland, J. (2015). "Assessment and Preservation of Ancient Roman Marble Blocks," *Proceedings of the 12th North American Masonry Conference (12NAMC)*, The Masonry Society, May 2015, Denver, Colorado.
- 24. Erdogmus, E., Garcia, E.* (2015). "Influence of Stabilizers on the Compressive Strength of Compressed Stabilized Earth Block Masonry," *Proceedings of the 12th North American Masonry Conference (12NAMC)*, The Masonry Society, May 2015, Denver, Colorado.
- 25. Erdogmus, E., Kousgard, A.**, Can, B., Hoff, M. (2015). "Interdisciplinary Investigations on a Roman-Era Colonnaded Street," *Proceedings of the 12th North American Masonry Conference (12NAMC)*, The Masonry Society, May 2015, Denver, Colorado.
- 26. Erdogmus, E., Wagner, B.**, Rohe, L.**, Garcia, E.*, Schwer, A., Matta, F., Obonyo, E., (2015). "Design of Compressed Stabilized Earthen Wall Systems for High-Wind Resistant Residential Unit Construction," Proceedings of the 2015 Architectural Engineering Institute (AEI) Conference, March 2015, Milwaukee.
- 27. Kousgaard, A.**, Erdogmus, E. (2015). "State-of-the-Art Review on the Resilience of Existing Masonry Wall Buildings against Progressive Collapse," *Proceedings of the 2015 Architectural Engineering Institute (AEI) Conference*, March 2015, Milwaukee.
- 28. Donkor, P., Obonyo, E, Matta, F., and Erdogmus, E. (2014). "Effect of Polypropylene Fiber Length on the Flexural and Compressive Strength of Compressed Stabilized Earth Blocks" Proceedings of the 2014 Construction Research Congress, Atlanta Georgia, May 19-21, 2014.
- 29. Wagner, B.*, Erdogmus, E., Schwer, A. (2013). "Affordable, Sustainable, and Resilient Tornado Shelter Design Using Compressed Stabilized Earth Block Construction," Proceedings of the SEMC 2013: The fifth international conference on Structural Engineering, Mechanics and Computation, 2-4 September 2013, Cape Town, South Africa.
- 30. Kousgaard, A.* and Erdogmus, E, (2013). "Externally Applied Retrofit System for Existing Masonry Buildings Subject to Progressive Collapse," proceedings of the SEMC 2013: The fifth international conference on Structural Engineering, Mechanics and Computation, 2-4 September 2013, Cape

- Town, South Africa.
- 31. Cuéllar Azcárate, M.C., F. Matta, E. Erdogmus, and E. Obonyo (2013), "Earth Blocks with Recycled Plastic Reinforcement for Damage Tolerance against Flying Debris from Extreme Winds," Proc. 7th International Conference on Architecture and Construction with Earthen Materials (Earth USA 2013), October 4-6, 2013, Santa Fe, NM, 7 p.
- 32. Erdogmus, E., Freedland, J., Jording, A., Kousgaard, A.**, Buckley C.M. (2013). "Material Condition and Deterioration Assessment Program for a 3rd Century Roman Temple," Proceedings AEI 2013 conference. Selected Best Paper of the conference.
- 33. Erdogmus, E., Norton, T., Buckley, C.M., Kauzlarich, K.**, Petersen, B.** (2011). "Seismic Investigation for the Temple of Antioch Reconstruction," to be published in the *Proceedings of First International Conference on Vulnerability and Risk Analysis and Management (ICVRAM)/Fifth International Symposium on Uncertainty Modeling and Analysis (ISUMA)*, April 11-13, 2011, Hyattsville, Maryland.
- 34. Erdogmus, E., Buckley, C.M., Brink, H.** (2011). "Restoration of the Temple of Antioch". *Proceedings of* 11th North American Masonry Conference, The Masonry Society (TMS), June 5-8, 2011, Minneapolis, MN.
- 35. Erdogmus, E., Buckley, C.M., Brink, H.** (2011). "The Temple of Antioch: A Study Abroad Internship for Architectural Engineering Students", the *Proceedings of Architectural Engineering Conference*, March 30- April 2, Oakland, California
- 36. Erdogmus, E.; Armwood, C.*; Haider, H.; Yang, Y. (2010). "Flexural Strength of Fiber Reinforced Lime Mortars for Historic Masonry Structures", *Proceedings of* 2nd Historical Mortars Conference, HMC10: Proceedings of Historical Mortars Conference, September 22-24, Prague, Czech Republic.
- 37. Skourup, B.* and Erdogmus, E. (2009). "Characteristics of PVA Fiber-Reinforced Mortars," *Proceedings of the 2009 Structures Congress*, ASCE, Austin, TX.
- 38. Erdogmus, E. and Armwood, C.* (2008). "Feasibility of Fiber-Reinforced Mortar for the Reconstruction of an Ancient Roman Temple," *HMC08: Proceedings of Historical Mortars Conference*, September 24- 26, Lisbon, Portugal. (Invited Paper and presentation).
- 39. Meyer, K.**, Erdogmus, E., Morcous, G., Naughtin, M.** (2008). "Use of Ground Penetrating Radar for Accurate Concrete Thickness Measurements," *Proceedings of the AEI Conference 2008*, September 24-27, AEI, ASCE. (<u>Awarded best structures article presented at the 2008 Architectural Engineering Conference</u>).
- 40. Armwood, C.*, Sorensen A.*, Skourup, B., Erdogmus, E. (2008). "Fiber Reinforced Mortar Mixtures for the Reconstruction and Rehabilitation of Existing Masonry Structures," Proceedings of the AEI Conference 2008, September 24-27, AEI, ASCE.
- 41. Sorensen, A. D.*, Schafer T.**, Erdogmus, E. (2008). "Ambient Environmental Effects On Experimental Modal Analysis," Proceedings of the AEI Conference 2008, September 24-27, AEI, ASCE.
- 42. Sorensen, A.*, Erdogmus, E. (2008). "Effects of Environmental Conditions on the Experimental Modal Analysis of Timbrel Domes," *SACoMaTiS 2008: Proceedings of the International Conference on the on site assessment of concrete, masonry, and timber structures*, Varena, Italy, September 1-4, 2008.
- 43. Maximos, H.*, Erdogmus, E., M.Tadros (2008). "Full Scale Test Installation for Reinforced Concrete Pipe," *Proceedings of the International Pipelines Conference 2008*, ASCE Pipeline Division, July 22-27, Atlanta, Georgia.
- 44. Erdogmus, E., Hoff, M., Townsend, R., Turkmen, S. (2007). "Interdisciplinary Assessment of A Roman Temple: Antiocheia Ad Kragos (Gazipasa, Turkey)", *Proceedings of the International Symposium on Studies on Architectural Heritage*, Yildiz Technical University Research Center for Preservation for Historical Heritage, 163-170.

- 45. Erdogmus, E., Skourup, B.N. *(2007). "Review of Available On-site Assessment and Strengthening Techniques for the Reconstruction of an Ancient Roman Temple," *Proceedings of the 10th North American Masonry Conference*, The Masonry Society, TMS.
- 46. Erdogmus, E., Unay, A. I. (2007). "Nondestructive Experiments and Structural Assessments on the Medieval Divrigi Complex," *Proceedings of the 10th North American Masonry Conference*, The Masonry Society, TMS.
- 47. Erdogmus, E., Skourup, B. N.* (2007). "System Characteristic Identification of Timbrel Domes Using Modal Analysis," *Proceedings of the International Operational Modal Analysis Conference (IOMAC)*, Denmark. (Invited Paper and presentation).
- 48. Erdogmus, E., Tuan, C., Dogan, S. Z.* (2007). "Prediction and optimization of HPC characteristics by machine learning techniques -Part I: review of the state-of-the-art.", *Proceedings of the Concrete Technology Forum: Focus on High Performance Concrete*, NRMCA.
- 49. Dogan, S. Z.*, Erdogmus, E., Tuan, C. (2007). "Prediction and optimization of HPC characteristics by machine learning techniques -part II: A strength prediction model using case based reasoning", *Proceedings of the Concrete Technology Forum: Focus on High Performance Concrete*, NRMCA.
- 50. Erdogmus, E., Tadros, M. K., Skourup, B. N.* (2007). "History of The Bedding Factor And Recommendations For The Design Of Reinforced Concrete Pipe," *Proceedings of the 2007 TRB Annual Conference*, Transportation Research Board.
- 51. Hoff, M., Townsend, R., Erdogmus, E. (2007). "Rough Cilicia Archeological Project: 2005 Season," *Proceedings of the 28th Archeological Survey Symposium*, Turkish Ministry of Culture, 231-244.
- 52. Erdogmus, E., Fitton, D.** (2006). "Modal Analyses on the Lateral Resistance System of the Auxerre Cathedral," *Proceedings of the 2006 Architectural Engineering Conference*, AEI, ASCE.
- 53. Erdogmus, E., Skourup, B. N.* (2006). "Experiments and Analyses on a Timbrel Dome," *Proceedings of the 2006 Architectural Engineering Conference*, AEI, ASCE.
- Hoff, M., Townsend, R., Erdogmus, E. (2006). "The Rough Cilicia Archeological Project: 2005 Season," ANMED News of Archeology from Anatolia's Mediterrenaen Areas 2006-4, Suna-Inan Krac Research Institute on Mediterrenean Civilizations, 99-104
- 55. Erdogmus, E. and Boothby, T.E. (2004). "Validated Structural Analysis of Gothic Vaulted Systems," Proceedings of the Structural Analysis of Historical Construction Conference IV.
- 56. Erdogmus, E., Hanagan, L. M. and Boothby, T.E. (2004). "Modal Experiments for the Validation of Masonry Vault Models," *Proceedings of IMAC-XXII Conference*.
- 57. Erdogmus, E., Boothby, T.E. and Smith, E. B. (2003). "Documentation of a Medieval Structure: Santa Maria Novella," *Proceedings of 9th North American Masonry Conference*.
- 58. Erdogmus, E. and Boothby, T.E. (2003). "Analysis of Masonry Arch Spandrel Vaults: Loading and Strength," *Proceedings of 9th North American Masonry Conference*
- 59. Boothby, T.E., Erdogmus, E. and Fanning, P. (2001). "Transverse Strength of Masonry Arch Bridges, *Proceedings of NSF 5th National Workshop on Bridge Research in Progress*
- 60. Boothby, T.E. and Erdogmus, E. (2001). "Load Rating of Masonry and Concrete Arch Bridges," Proceedings of the AREMA 2001 Annual Conference & Exposition

E. OTHER PAPERS PUBLISHED IN PEER-REVIEWED JOURNALS

- 1. Erdogmus, E. (2014). "Editor's Note", *Journal of Architectural Engineering*, December 2014 Issue, 10.1061/(ASCE)AE.1943-5568.0000160
- 2. Erdogmus, E; Schafer, T² (2013). Closure to "Strengthening Two-Way Reinforced Concrete Floor Slabs Using Polypropylene Fiber Reinforcement" by Matthew J. Radik²; Ece Erdogmus, and Travis

- Schafer², ASCE Journal of Materials in Civil Engineering, May 2011, Vol. 23, No. 5, pp. 562-571, ASCE, ISSN 0899-1561/2011/5-562–571/
- 3. Erdogmus, E. (2012). "Editor's Note", Journal of Architectural Engineering, March 2012 Issue, 10.1061/(ASCE)AE 1943-5568.0000082

F. Presentations*, Key Notes, and Invited Talks

*Conference papers listed in section C also involve presentations, but they are not listed here again to avoid duplication. This section only lists talks independent of a paper in-print.

- 1. Erdogmus, E. (2023). "Quest for Big Impact: Limiting Beliefs, Authenticity, and Big Audacious Goals." Juneau Construction League of Women (JLOW) Keynote.
- 2. Erdogmus, E (2023). "Authenticity and Masonry", Athens Area Women in Construction (AAWIC)
- 3. *Erdogmus*, E (2023). Guest at Episode#1 of Podcast "A Blueprint for Equity", published by SSOE: https://www.ssoe.com/landing-pages/podcast/
- 4. Erdogmus, E. (2022), Balancing a STEM career and life. BP Women Leaders Network
- 5. Erdogmus, E (2022). "Drones, Lasers, and Ancient Masonry", Keynote speaker at the Construction History Society of America, 7th Biennial Meeting on Construction History: Quarrying History
- 6. Erdogmus, E. (2019). "Repointing Masonry," Invited Speaker at the Restore Nebraska Conference, March 1-2, 2019.
- 7. Erdogmus, E. (2019). "Case Studies in Assessment and Modeling of Masonry Arches and Domes," Invited talk at University of Florence, Italy, May 2019.
- 8. Erdogmus, E. (2018). "Historic Masonry: Assessment and Rehabilitation,", Invited Speaker at the Nebraska Historic Preservation Conference, March 2-3, 2018.
- 9. Erdogmus, E. (2015). "Engineering Perspective on Assessment, Rehabilitation, and Conservation of Ancient Sites," *Izmir Technology Institute, Izmir, Turkey, June 2015*.
- 10. Erdogmus, E. (2015). "Historical Structures' Assessment and Rehabilitation (HiSAR)," Rome Sapienza University Department of Civil Engineering, Rome, Italy, May 2015.
- 11. Erdogmus, E. (2015). "Historical Structures' Assessment and Rehabilitation (HiSAR)," Osher Lifelong Learning Institute (OLLI) 2015 Lecture Series
- 12. Erdogmus, E. (2015). "Rehabilitation of Existing Masonry Structures," *Eureka! 2015 Event*, Organized by UNL Extension
- 13. Erdogmus, E. (2014). "Masonry Research at University of Nebraska," 9th Annual NCMA Quality Masonry Conference, Ashland, NE, January 30, 2014.
- 14. Erdogmus, E. (2009). "The Temple Excavation and Restoration Project in Turkey," invited speaker to HDR Architectural Engineering Firm, Omaha, Nebraska, November 2009.
- 15. Erdogmus, E. (2009). "The Temple Excavation and Restoration Project in Turkey," invited speaker to *City of Lincoln Engineering Department Professional Speaker Series*, March 2009.
- 16. Erdogmus, E. (2009). "Update on Research on Fiber reinforced mortar for masonry applications," presentation to the Nebraska Masonry Institute (NMI), May 2009.
- 17. Erdogmus, E. (2008). "Research on Fiber reinforced mortar for masonry applications," presentation to the Nebraska Masonry Institute (NMI), February 2008.
- 18. Erdogmus, E. (2007). "Development of Nondestructive Evaluation Tools and Innovative Rehabilitation Techniques for Existing and Historical Structures," *International Workshop on Advanced Structures and Materials (IWASAM): Research collaborations between University of Nebraska-Lincoln and Kansai University (Japan)*, UNL, Lincoln, U.S.

- 19. Erdogmus, E. (2007). "Development of Nondestructive Evaluation Tools and Innovative Rehabilitation Techniques for Existing and Historical Structures," UNL_Warsaw University of Technology Research Collaboration Workshop, Warsaw, Poland.
- Erdogmus, E. (2007). "Development of Nondestructive Evaluation Tools and Innovative Rehabilitation Techniques for Existing and Historical Structures," UNL_Szczecin University of Technology Research Collaboration Workshop, Szczecin, Poland.
- 21. Erdogmus, E. (2007). "Development of Nondestructive Evaluation Tools and Innovative Rehabilitation Techniques for Existing and Historical Structures," UNL_Krakow University of Technology Research Collaboration Workshop, Krakow, Poland.
- Erdogmus, E. (2004). Invited Seminar "Model Experiments for the Validation of Masonry Vault Models", Massachusetts Institute of Technology (MIT). Department of Architecture, Building Technology Group Seminars.
- 23. Erdogmus, E. (2004). "Modal Experiments for the Validation of Masonry Vault models, *Architectural Engineering Department Seminar Series, The Pennsylvania State University*.
- 24. Erdogmus, E. (March 2001). "Influence of Heavy Axles on Filled Arch Railroad Bridges," *Architectural Engineering-Civil Engineering Departments Structural Seminar Series, The Pennsylvania State University*.

G. Webinars, Trade/Technical Magazines, and Media References to Work

- 1. Tran-SET webinar 'Innovative Technology, Techniques, and Processes in Transportation Infrastructure Inspection': https://www.youtube.com/watch?v=S5tv2MrbeEY&feature=youtu.be
- 2. Erdogmus, E. (2016). "Masonry Matters. Pay Attention!" appeared in Smart: Dynamics of Masonry Technical Magazine, July 2016. (This article highlights Erdogmus' Masonry Design class and the term project she assigns every year. She is invited to write another article in Summer 2020).
- 3. "Expert address on the use of Ground Penetrating Radar", KETV news, Omaha, October 2011.
- "Ice shards falling on my head," Omaha World Herald Article on March 6, 2010, quoting Ece Erdogmus for Architectural Engineering aspects of the Zorinsky Federal Building downtown Omaha.
- "Erdogmus' Research Helps National Park Service with Historic Preservation of Buildings," News release, 2009. http://www.engineering.unl.edu/collegeheadlines/2009/collegeheadlines06-24-09.shtml
- 6. Numerous Turkish newspapers and TV news programs (Erdogmus interviewed) regarding the Temple Reconstruction Project in Turkey (2005- 2009).
- 7. "Archaeology Group Digs UNL Engineers' Presentation." Engineering @ Nebraska Magazine, Spring 2008. Article regarding the award-winning poster "The Imperial Temple Project at Antiocheia ad Kragos in Turkey: 2007 Season,"
- 8. "Rebuilding, Learning from Ancient Ruins" University of Nebraska Lincoln, Office of Research and Graduate Studies, Annual Report, 2006-2007.
- 9. Alumni Honors, *Penn State Architectural Engineering Newsletter*, Spring/Summer 2007, Regarding the AE teaching award in 2007.
- 10. "What Lies Beneath" Engineering Nebraska Magazine, Spring 2005. Article regarding research on Italian and French Gothic Monuments as well as the domes of the Nebraska State Capitol.
- 11. "2005 UPMW Draws Educators from Across North America to the University of Minnesota," *The Masonry Society News, April 2005.*
- 12. "Medieval Masonry Vaults" Penn State Architectural Engineering Newsletter, Fall/Winter 2003.

VIII. Funding Record

A. EXTERNALLY FUNDED GRANTS

No.	Title	Sponsor	Total Amount	Period	Investigators
	Experimental and Numerical Evaluation of the Modulus of	NCMA	72.765	1/2024-	Erdogmus (PI), Subaward to
1	Rupture Values and Deflection Limits for Masonry Beams	Foundation	72,765	12/2025	Clemson U.
	Improving Engineering Student Engagement, Self-Efficacy,			11/1/2021-	Erdogmus (PI), Subawards to:
2	Diversity Awareness, and Retention using Visualization and	NSF	\$1,700,000	12/31/2026	UNL, TSU, RMC
	Virtual/Augmented Reality Technologies			12/31/2020	ONL, 130, RIVIC
3	Detection of Flaws in Asphalt Overlaid Concrete Decks Using	NDOT	\$52,957	7/1/19-	Erdogmus, Kim
	Ultrasonic Guided Waves	11501	432,337	12/31/20	Erdoginas, Kiin
	Prototype System for Implementing the Ultrasonic Guided Wave	NDOT	\$88,138	7/1/18-	Erdogmus
	Method on the Field		400,100	12/31/19	21.008.1103
1 5	Early Detection of Near-Surface Void Defects in Concrete	NDOT	\$94,668	7/1/18-	Shen, Erdogmus, Morcous
_	Pavement using Drone-Based Thermography and GPR Methods		75.7555	12/31/20	,
6	IRES: U.STurkey Research Collaboration in Conservaton	NSF	\$249,888	03/16-02/19	Erdogmus
	Engineering	-	, ,,,,,,,,	,, -	
7	Detection of Multiple Flaws in Concrete Bridge Decks using	NDOR	\$88,936	07/16-12/17	Erdogmus
	Ultrasonic Wave Propagaton	NORTH WE			
8	"ARCHES: Assessment, Rehabilitation, and Conservation of	NCPTT, WJE,	\$5,500	05/15-12/16	Erdogmus
	Historical and Existing Structures"- International Workshop	ANA			_
9	Masonry Research and Teaching Support	NCMA	\$4,500	01/14-05/16	Erdogmus
	Continuous Long-Term Health Monitoring Using Ultrasonic Wave				
10	Propagation	NDOR	\$58,769	07/14- 9/16	Erdogmus
	Collaborative Research: Resilient and Sustainable Engineered				Erdogmus (PI at UNL), Matta
1 11	Fiber-Reinforced Earthen Masonry for High Wind Regions	NSF	\$270,000	09/11-12/15	(USC), Obonyo (UF), Schwer
	Tiber Neimoreed Edither Masoniy for riigh wind negions				, , , ,
12	Temple Project Field Work Support	WJE	\$5,000	5/10-8/10	Erdogmus
	Interdisciplinary Studies on an Ancient Roman Temple				
1 13	Supplement Grant	NSF	\$24,270	05/09-08/10	Erdogmus & Hoff
	Excavation of the Imperial Temple at Antiocheia ad Kragum				
14	(Turkey)	HU-LCLF	\$17,500	2009-2010	Hoff & Erdogmus (Co-PI)
45	Sustainable Fiber Reinforced Mortar (FRM) Mixtures for the		440 774	05/00 00/00	- 1
15	Preservation of Unreinforced Masonry Architectural Heritage	NCPTT	\$49,771	06/08-09/09	Erdogmus
16	Excavation of the Imperial Temple at Antiocheia ad Kragum	HU-LCLF	\$10,000	2007-2008	Hoff & Erdogmus (Co.DI)
16	(Turkey)	HU-LCLF	\$10,000	2007-2008	Hoff & Erdogmus (Co-PI)
17	Use of Ground Penetrating Radar for Construction Quality	NDOR	\$28,667	07/07-12/09	Morcous & Erdogmus (Co-PI)
1/	Assurance of Concrete Pavement	NDOR	\$20,007	07/07-12/09	Worcous & Erdoginus (Co-Pi)
18	Interdisciplinary Studies on an Ancient Roman Temple	NSF	\$122,471	09/06-08/10	Erdogmus & Hoff
10	interascipinally studies on an Ancient Noman Temple	IVJI	Ψ144,471	09/00-00/10	Liuoginus & non
19	Behavior and Design of Concrete PipePhase II	NDOR and City	\$153,783	07/06-09/09	Erdogmus (PI) & Tadros
13	Behavior and Design of Concrete riperilase ii	of Lincoln	7133,703	37,00-03,03	Lidoginas (ri) & Idaios
20	Behavior and Design of Concrete Pipe	NDOR	\$54,166	07/05-06/06	Erdogmus & Tadros
	· ·		ψο .,200	21,00 00,00	
1 21	Multidisciplinary Studies on a Medieval Building: Sivas Divrigi	METU	\$8,000	2005	Erdogmus, Peker, Yavuz, Unay
	Mosque and Hospital Complex		. ,		
			\$3,159,749		

Acronym	Description	
ANA	Atkinson-Noland and Associates	
HU-LCLF	Harvard University Loeb Classical Library Foundation	
METU	METU Middle East Technical University- Research Office, Ankara, Turkey	
NCMA	Nebraska Concrete Masonry Association	
NCPTT	National Center for Presertation Technology and Training	
NDOR	NDOR Nebraska Department of Roads	
NSF	SF National Science Foundation	
WJE	Wiss, Janney, and Elstner Associates	

B. Internally Funded Grants

GEORGIA TECH

No	Title	Sponsor	Total Amount	Period
1	Digital Reconstruction with Social Impact: Promote Hope and Preserve History	Denning Global Engagement Program	\$15,000	4/2023- 8/2024
2	Transforming Construction Management and Real Estate Development Education at Georgia Tech for A More Sustainable Built Environment	Sustainability Next	\$10,000	4/2023-6/2024
3	Low-carbon Building Materials for Climate Adaptation and Mitigation (Erdogmus Co-PI)	Sustainability Next	\$30,000	4/2023-6/2024
	Identifying the Impact of Building Systems on the Sleep Quality of People with MCI in Underprivileged Communities	CEP Program	\$49,966	1/1/2022-12/31/2022
	Accessible Construction Education through Virtual/Augmented Reality Discipline Explorations (ACE-VADER)	GT-AMP	\$73,437	1/1/2022-5/31/2022

CEP: Cognitive Empowerment Program GT-Amplify Momentum Project

<u>UNL</u>

Acronym	Description	
DSAEC	Durham School of Architectural Engineering and Construction	
UNL-OR- AHREP	UNL-Office of Research- Arts & Humanities Research Enhancement Program	
UNL-RC	UNL Research Council	
UCARE	Undegraduate Creative Activity and Research	
FUSE	Fund for Undergraduate Scholarly Experiences	

1. Seed Grants

No.	Title	Sponsor	PI/Co-PI (Erdogmus %)	Period	Total Amount
1	Augmented Reality Internship Module	Layman New Directions Award	PI (100%)	05/01/2019- 12/31/2020	\$10,000
2	An energy efficient, wireless integrated sensing and computing nano- micro-electro-mechanical system network	Layman Fund	Co-PI (25%)	05/01/2019- 04/30/2021	\$10,000
1 3	An Innovative and Cost Effective Strengthening Method for Masonry Buildings for Collapse Safety	UNL RC (Seed)	PI (100%)	01/13-12/14	\$10,000
4	Antiocheria ad Cragum Archaeological Research Project, 2009 Season	UNL- OR- AHREP	Co-PI (50%)	07/06-06/10	\$10,000
1 5	Interdisciplinary Grant: Antiocheia ad Cragum Archeological Research Project 2009	UNL RC	Co-PI (50%)	01/09-12/09	\$23,937
6	Sustainable Fiber Reinforced Mortar(FRM) Mixtures for the Preservation of Unreinforced Masonry Architectural Heritage (Cost-share for NCPTT)	DSAEC	Co-PI (50%)	06/08-09/09	\$6,048
1 /	Interdisciplinary Grant: Antiocheia ad Cragum Archeological Research Project 2008	UNL RC	Co-PI (50%)	01/08-12/08	\$17,320
	Research on Organic Firber-Reinforced Mortar Mixtures for the Reconstruction of Ancient Masonry Structures	UNL Layman Award	PI (100%)	06/07-05/08	\$10,000
9	The Rough Cilicia Archaelogical Project: Antiocheia Ad Kragum	UNL Layman Award	Co-PI (50%)	06/05-05/06	\$10,000
10	Antiocheia Ad Cragum Interdisciplinary Project	Vice Chancellor for Research, Special Grant	Co-PI (50%)	2007-2009	\$31,350
				TOTAL	\$138,655

2. Undergraduate Research Grants

No.	Student Name	Title	Sponsor	Total Amount	Period
1	Nathan Taylor		UNL-UCARE	\$2,400	2020-2021
2	Ryan Ehresman	Team Project: Prediction of the settlement induced damage progression in masonry walls with different morphology	UNL-UCARE	\$2,400	2020-2021
3	Collen Findall	- union on this phology	UNL-UCARE	\$2,400	2020-2021
4	Ethan Hall	Discrete Element Modeling of Compressed Stabilized Earth Blocks	UNL-UCARE	\$2,400	2019-2020
5	Nathan German		UNL-UCARE	\$2,400	2017-2016
6	Edward McNamara	Team Project: Modeling and Analysis of Masonry Arch Behavior	UNL-UCARE	\$2,400	2017-2017
7	Colin Miller]	UNL-UCARE	\$2,400	2017-2018
8	Monica Houck	0 : (0 111 11 11 11 11 11 11	UNL-UCARE	\$2,400	2016-2016
9	Barbara Louise Mullen	Corrosion of Rebar and Identification of Resulting Delamination Using Ultrasonic Testing	UNL-UCARE	\$2,400	2016-2017
10	Lucas Dolezal	Development of Structural Design Guidelines for Compressed Stabilized Earth Block Masonry	UNO-FUSE	\$3,000	2016-2017
11	Marissa Gigantelli	Team Project: Compressed Stabalized Earth Block Masonry for Resilient, Energy-efficient, Healthy,	UNL-UCARE	\$2,400	2015-2016
12	Cody Largent	and Affordable Buildings	UNL-UCARE	\$2,400	2015-2016
13	Dakoda Kilzer	Effect of Embedded Rebar Corrosion on Ultrasonic Wave Propagations	UNO-FUSE	\$3,000	2015-2016
14	Dana Anderson	Impact Echo Testing and Wall Performance Analysis of A Collapsed Temple	UNO-FUSE	\$4,500	2015-2016
15	Dana Anderson	To an Book of Otto to all Forms Analysis of a Domes Towards Forms	UNL- UCARE	\$2,400	2014-2015
16	Nick Garaycochea	Team Project: Structural Frame Analysis of a Roman Temple Façade	UNL- UCARE	\$2,400	2014-2015
17	Kate Fickle	Nondestryctuve Testing and Finite Element Analysis for a Collapsed Temple	UNO-FUSE	\$3,000	2014-2015
18	Kate Fickle	Void Detection in Stone Blocks for Collapsed Temple Project	UNL-UCARE	\$2,400	2013-2014
19	Sara Robbins	Dynamic Response of Classical Roman Orders	UNL-UCARE	\$1,000	2012-2013
20	Linsey Rohe	Strength of Compressed Stabalized Earth Block Walls	UNL-UCARE	\$1,000	2012-2013
21	Andrew Reinke	Architectural Engineering Integration Chatacteristics of Compresses Stabilized Earth Blocks	UNO- FUSE	\$3,000	2012-2012
22	Sean Kirker	Damage Detection on Historic Stone Masonry	UNO-FUSE	\$3,000	2012-2013
-00	B W	Modeling of A High-Wind Resistant Residential Building using CSEBs	UNL-UCARE Y2	\$2,400	2012-2013
23	Ben Wagner	Parametric Design of A Residential Unit Using Sustainable CSEBs	UNL-UCARE Y1	\$1,000	2011-2012
0.4	ICI D I	Cost Effectiveness of Earthen Residential Construction (*Kile Donley)	UNL-UCARE Y2	\$2,400	2012-2013
24	Kile Donley	Compressed Stabilized Earth Blocks- Literature Review and Materials Testing	UNL-UCARE Y1	\$1,000	2011-2012
		Finite Element Analysis of an Ancient Roman Temple	UNL-UCARE Y2	\$2,400	2011-2012
25	Karina Kelly	Reconstruction of A Roman Temple-Finite Element Modeling	UNL-UCARE Y1	\$1,000	2010-2011
00	4 1 5 1	Correlation Between Masonry Walls and Test Prisms	UNL-UCARE Y2	\$1,500	2011-2012
26	Andrew Rudeen	Nondestructive and Minor-destructive Assessment of Masonry Walls	UNL-UCARE Y1	\$1,000	2010-2011
07		Nondestructive Evaluation of Existing Structures & Archaeological Sites	UNL-UCARE Y2	\$2,400	2010-2011
27	Jacob Zach	Nondestructive Evaluation of Existing Masonry Structures	UNL-UCARE Y1	\$1,000	2009-2010
28	Jacob Hanna	Study on Fiber Reinforced Mortars for Masonry Applications	UNL-UCARE	\$1,000	2009-2010
	Halle Datab	Investigations on a Buried 3rd Century Vaulted Structure	UNL-UCARE Y2	\$1,500	2009-2010
29	Holly Brink	Nondestructive Evaluation of Existing Masonry Structures	UNL-UCARE Y1	\$2,000	2008-2009
20	Tues de Cabalas	Three Dimensional Computer Modeling of Collapsed Temple	UNL-UCARE Y2	\$2,400	2008-2009
30	Travis Schafer	Lightning Damage on Ancient Stone Masonry	UNL-UCARE Y1	\$2,000	2007-2008
31	Mary Naughtin (Wurst)	Applications of Ground Penetrating Radar in Structural Engineering	UNL-UCARE Y2	\$2,400	2007-2008
31	iviary ivaugriiri (vvurst)	Analyses and Experiments on Masonry Domes: Catalan and Byzantine Styles	UNL-UCARE Y1	\$2,000	2006-2007
			TOTAL	\$77,300	

IX. Supervision of Research

A. POSTDOCTORAL FELLOWS

- 1. Semsi Coskun Rakici (Fall 2022- present). Numerical investigation of concrete and masonry structures.
- 2. Esra Keskin, Spring 2022
- 3. Bora Pulatsu (Fall 2019-May 2021). "Numerical investigations on the damage, time-dependent and thermo-mechanical deformations in *concrete* and *masonry*."

- 4. Eric Garcia (December 2016-May 2017). "Use of Ultrasonic Guided Waves on Reinforced Concrete"
- 5. Yasar Hanifi Gedik (2008): "Behavior of Fiber Reinforced Cements"
- 6. Sevgi Zeynep Dogan (2006-2007): "Use of Machine Learning To Predict the Strength of High Performance Concrete Mixes"

B. PHD STUDENTS

<u>GT</u>

- 1. Candace Washington, January 2023-Present
- 2. JaeHoon Ma, PhD student, January 2022- Present

UNL

- 1. Bora Pulatsu (2019). "Simulation of Complex 3D Behavior of Masonry Arch Systems" *Current Employment:* Postdoctoral Fellow at the University of Nebraska-Lincoln.
- 2. Eric Garcia (2016). "Identifying the Onset, Type, and Location of Deterioration in Reinforced Concrete Using Ultrasonic Testing,"

Current Employment: Assistant Professor of Engineering at University of Mary.

- 3. Ariel P. Kousgaard (2016). "Material Durability in the Anastylosis of Ancient Structures" *Current Employment:* Associate II at Wiss, Janney, and Elstner Associates, Northbook Office.
- 4. Catherine K. Armwood (2014). "Behavior of Fiber Reinforced Mortar Joints in Masonry Walls Subjected to In-Plane Shear and Out-of-Plane Bending"

Current Employment: Assistant Professor at the Architectural Engineering Department at Tennessee State University.

5. Andrew D. Sorensen (2009). "Decomposing a timbrel dome: Understanding the role of the structural elements in a complex masonry system"

Current Employment: Assistant Professor at the Civil and Environmental Engineering Department at Utah State University.

6. Co-adviser for Hany Maximos with Andrej Nowak (and formerly with Maher Tadros). (2009) "Behavior and Design of Buried Reinforced Concrete Pipe"

Current Employment: Maximos Engineering

C. MASTER OF SCIENCE (M.S.) STUDENTS- WITH THESIS

GT

- 1. Candace Washington, graduated May 2022
- 2. Barbara Spitzer, graduated December 2022
- 3. Aliaa Ismail, graduated December 2022

UNL

- 1. Theresa McCabe (2020). "Quality Control in Concrete Pavement: Early Detection of Near-Surface Honeycombing with GPR"
- 2. Shoaib Amiri (2020). "A Comparison between Ultrasonic Guided Wave Leakage and Half-Cell Potential Methods in Detection of Corrosion in Reinforced Concrete Structures."
- 3. Tyler Sondag (2020). "Evaluation of the Dynamic Behavior of Steel Staircases with Concrete Filled Pan Treads"
- 4. Elena Hoff (2016). "Appraisal of the Sustainability of Compressed Stabilized Earthen Masonry"

- 5. Cody Michael Buckley (2015). "The Effect of Classical Design Principles on the Seismic Response of Mechanically Fastened Masonry Columns"
- 6. Ebrima Colley (2014). "Effects Of Polyethylene Terephatlalate Fibers in the Water Resistance of Compressed Stabilized Earth Blocks"
- 7. Alexander Charles Jording (2012). "Damage Detection in Metamorphic Stone Blocks Utilizing Impact-Echo Testing and Modal Analysis"

D. MASTER OF ARCHITECTURAL ENGINEERING (MAE) STUDENTS- WITH REPORT

These students carried out a year-long research project as part of a 5-credit individual cap-stone course. As the structural option leader, I have served as the major advisor of all of the following students, in addition to serving on the committee of all of the other structures-option students since Fall of 2004.

No	Name	Graduation Date
1	Jawad Allawati	May 2018
2	Joseph Crowe	May 2017
3	Jacinta Christiansen	May 2017
4	Moe Al Nabhani	May 2017
5	McClenahan, Robert	May 2016
6	Anderson, Caitlin	December 2015
7	Rohe, Linsey	May 2015
	Walsh, Brendan	May 2015
9	DeGagne, Ben	May 2014
10	Kousgaard, Ariel	May 2013
11	Rudeen, Andrew	May 2012
12	Zach, Jacob	May 2012
13	Wagner, Benjamin	May 2012
14	Hebert, Matthew	May 2011
15	Jacobsen, Kathlyn Renae	May 2010
16	Schafer, Travis M.	May 2010
17	Cote, John	May 2009
	Payne, Jeffrey	May 2009
	Ucman, Jon	May 2009
	Allen, Lance	May 2008
	Collingsworth, Cammeron	May 2008
	Fitch, Kyle	May 2008
	Nickeson, Brett	May 2008
_	Fix, Ryan A.	August 2007
	Skourup, Brian N	August 2007
_	Barker, Kevin	May 2007
	McConnell, Jake	May 2007
28	Radik, Matthew	May 2007
29	Clayton, Christopher John	December 2006
30	Curtis, Ryan B.	December 2006

No	Name	Graduation Date
31	Craddock, Jared	Did not complete MAE
32	Behrens, Jason Ray	May 2006
33	Cameron, Brad Alan	May 2006
34	Ernst, Aaron	May 2006
35	Enstrom, Matthew J.	May 2006
36	Johnson, Andrew Wes	May 2006
37	Keiser, Neel J.	May 2006
38	Nommensen, Scot Arnold	May 2006
39	Ucman, Samuel Jordan	May 2006
40	Berger, Michelle	May 2005
	Fitton, Derrick	May 2005
42	Clinebell, Nickolaus	May 2005
43	Grasse, Ryan	May 2005
	Day, Renee	May 2005
	Christensen, Adam	May 2005
46	Butler, Lawrence	May 2005
47	McCormick, Nancy	May 2005

E. Undergraduate Research Students (Funded)

I value undergraduate involvement in research as an educator. Following undergraduate students have been mentored in research activities under externally funded projects. In addition, 31 university-funded undergraduate research project activities have been mentored (Please section VIII.B).

No.	Student Name	Dept - Uni	sve been mentored (Please section
		-	Sponsor
—	Ben Schnatz	AE-UNL	NDOT
_	Dylan Thompson Mitchael Sieh	AE-UNL	
		AE-UNL	NDOT
	Uziel Ramos	AE-UNL	
-	Kelsey Stithem	AE-UNL	NDOT
-	Monica Houck	AE-UNL	
	Aaron Adams	AE-UNL	-
-	Jacinta Christiansen	AE-UNL	-
_	Kelsey Stithem	AE-UNL	-
	Meredith Butler	AE-UNL	-
	Nicole Aschoff	AE-UNL	-
	Schuyler Sutter	AE-UNL	-
	Mitchael Sieh	AE-UNL	NOT.
	Dylan Thompson	AE-UNL	NSF 1
	Gage Gibney	AE-UNL	-
	Brianne Inselman	AE-UNL	-
	Mason Gish	MME- UNL	-
	Nicole Aschoff	AE- UNL	-
_	Whitney Whitfield	TSU-AE	-
_	De'Asia Hamilton	TSU-AE	-
	Kayla Clanton	TSU-AE	
	Andrew Reinke	AE-UNL	-
	Ariel Kousgaard	AE-UNL	-
_	Bailey Barnard	Art History- UNL	-
	Emma Clute	Art History- UNL	-
	Holly Brink	AE-UNL	
	Jacob Zach	AE-UNL	-
	Jamie Tills Jared Johnson	AE-UNL	-
	Karina Kelly	Art History- UNL AE-UNL	1
	Kate Latham	AE-UNL Art History- UNL	1
	Kenzi Meyer	ART HISIOTY- UNL	NSF
	Kristin Palik	CIVE- UNL	1
	Linsey Rohe	AE-UNL	1
_	Mary Naughtin (Wurst)	AE-UNL	1
_	Melissa White	Art History- UNL	†
_	Sara Robbins	AE-UNL	†
_	Sean Kirker	AE-UNL	1
	Shana O'Connell	Art History- UNL	1
_	Travis Schafer	AE-UNL	1
_	William Kuehn	Art History- UNL	1

F. PARTICIPATION ON OTHER STUDENT PHD SUPERVISORY COMMITTEES

- Anthony Kodsy (ConE/CIVE student, Adviser)
- Mostafa Aboelkhier (ConE/CIVE student)
- Luz Sotelo (MME student)
- *Amanda Gaggioli (Geoarcheology at Stanford- worked in my NSF project and collaborated on articles)
- Mabel Cuellar-Azcarate University of Southern Carolina (CIVE)
- Ri Na (CM)
- Mohammad Badran (CIVE)
- Mehdi Mohseni (CM)
- Mohammad Lashgari (CM)
- Musa Alawneh (CIVE)
- JiChong An (CIVE)
- *Willast Amornrattanepong (CIVE)
- Kromel Hanna (CIVE)
- Ning Wang (CIVE)
- Jonathan Rathsam (AE-Acoustics)

X. Mentoring of Junior Faculty

I have mentored the following junior faculty:

GT

- Dr. Eunhwa Yang
- Dr. Bola Ogunseiju
- Dr. Eben Fanijo
- Dr. Jing Wen

UNL

- Dr. Josephine Lau (tenured and promoted to Associate)
- Dr. Fadi Alsaleem (Assistant Professor)
- Dr. Iason Konstantzos* (Assistant Professor)
- Dr. Jennifer Lather* (Assistant Professor)

^{*}I provided partial funding

^{*} Hired as a result of a search where Erdogmus served as the search committee chair.

XI. Courses Taught

- Masonry and Timber Design
- AE Interdisciplinary Team Design Project (Capstone)
- Engineering Statics
- Mechanics of Elastic Bodies
- Mechanics of Materials Lab
- Global Experiences in Engineering
- Special Topics: Advanced Cementitious Systems
- Special Topics: Sustainable Masonry
- Special Topics: Assessment of Historical Construction

XII. Consulting and Industry Partnership

- I expanded, revitalized, and have being leading the <u>Georgia Tech BC Advisory Board</u>; a group of over 45 members of our industry.
- I led the Durham School Architectural Engineering Industry Advisory Board (AEIAC) and have developed close relationships with AEC industry through the advisory board, my own work, and our alumni. AEIAC included members from AEC firms all around the nation including but not limited to HDR, DLR, Leo A Daly, JE Dunn, Alvine Engineering, HGA, SGH, and many others.
- I worked as a structural engineer for Leo A Daly Omaha Office for 3 months in 2005 and 9 months in 2012/13.
- I collaborate or perform consulting projects for:
 - o Atkinson-Noland and Associates, Boulder, Colorado
 - o Robert Silman Associates, New York
 - o Wiss, Janney, Elstner and Associates, Chicago office
 - o Expert Witness for Attorney Michelle Epstein at Ausman Law Firm
- I am advisor to the board of the Nebraska Masonry Alliance (NMA) and serve as a technical consultant to them.
- I am on the Educational Task Force for Concrete Masonry Checkoff Program- Region 2.

XIII. Service Roles

A. UNIVERSITY/COLLEGE/DEPARTMENT SERVICE

GT

- 1. Search Committee Member for the College of Design Director of Development (Fall 2023)
- 2. Chair of the CoD Career Educator Search Committee (Fall 2021)
- 3. Search Committee Member for the Senior Vice Provost for Education & Learning (AY21-22)
- 4. Search Committee member for the Vice Provost for Undergraduate Education (AY21-22)

UNL

University-Level

- 1. Member, Chancellor's Commission on Status of Women, (2019-2021)
- 2. Member, UNL Search Committee for the Dean of the College of Engineering (2018)
- 3. Member, UNL Dean of the College of Engineering 5-year Review committee (2016)

- 4. Member of the UNL Academic Rights and Responsibilities committee (2014- Present)
- 5. Member, UNL Search Committee for the Dean of the College of Engineering (2010-2011)
- 6. Reviewer for the Layman, Arts & Humanities, Minority Health, and Strategic Cluster awards (2010).
- 7. Mentor to Dr. Josephine Lau, UNL Research Development Fellows Program (2009-10)

College-level

- 1. Chair, college of Engineering Task Force on Diversity and Inclusion (2019-2020)
- 2. Reviewer, UNL College of Engineering Employee Awards Review Committee (2014)
- 3. College of Engineering Continuous Improvement in Teaching and Learning (CITL) committee (2013-2014)
- 4. Member, Building the 22nd Century Workshop Organizing Committee (2012-2013) and Faculty Leader for the K-12 Outreach/Competition
- 5. Member, Search Committee for the Director of the Durham School of Architectural Engineering and Construction (2009)
- 6. Member, College of Engineering Curriculum Committee (2006- 2013)
- 7. Member, College of Engineering International Programs Committee (2008-2010)
- 8. Member, College of Engineering Apportionment Appeals Committee (2008-2010)
- 9. College of Engineering Research Advisory Committee (2006-2007)

Unit-LEVEL

- 1. Chair, Architectural Engineering ABET Committee (2015- 2017)
- 2. Chair, Architectural Engineering Curriculum Committee (2006-2019)
- 3. Chair, AE Faculty Search Committee, 2019
- 4. Chair, AE Faculty Search Committee, 2018
- 5. Member, AE Presidential Scholar Search Committee, 2019
- Member, Durham School of Architectural Engineering and Construction, Executive Council (2013-Present)
- 7. Member, AE P&T Committee
- 8. Member, UNL AE Search Committee for Big-Data Program of Excellence faculty position (2016)
- 9. Member, UNL CIVE Search Committee for Structures Faculty Position (2014-2015)
- 10. Member, UNL CIVE Search Committee for Structures Faculty Position (2013-2014)
- 11. Member, UNL AE Search Committee for open faculty position (2012)
- 12. Member, UNL AE Search Committee for open faculty position (2008)
- 13. Member, UNL AE Search Committee for open faculty position (2007)
- 14. Durham School of Architectural Engineering and Construction, Promotion & Tenure Guidelines Ad-Hoc Committee, (2006)
- 15. Member, UNL AE Search Committee for open faculty position (2005)

Outreach

- Raymond G. Alvine Engineering Scholarship Committee (2008- 2019)
- Faculty host for the students/parents considering the Architectural Engineering Program (2013-Present)
- Presenter for Explorer's Post events (several occasions): Introducing AE and Presenting Structural Engineering break-out session
- Presenter/Session chair at the Women Interested in Engineering Event (2016)
- Organizer/Chair for the Marian High school- NSF workshop (2012)

- Faculty leader in charge of the K-12 Poster Competition at the Building the 22nd Century Workshop, UNL College of Engineering (2013)
- Habitat for Humanity volunteer, Nebraska and Georgia

B. Professional Service

- The Masonry Society (TMS) Service
 - TMS Member (2003- Present)
 - <u>Associate Editor</u> for the Masonry Society Journal (2006- 2013)
 - TMS Journal Editorial Board (2013-present)
 - Reviewer for the Masonry Society Journal (2006-Present)
 - Member of the TMS 402/602 code committees (responsible for the development and maintenance of Building Code Requirements and Specifications for Masonry Structures) (2012- Present)
 - i. <u>Chair of the Structural Members Subcommittee</u>: last quarter of the 2022 cycle and for the 2028 cycle
 - ii. Voting member of TMS 402/602 Main: 2022 and 2028 code cycles
 - iii. Voting member of Structural Members, General Requirements, Form and Style: 2022 cycle
 - iv. Voting member of Structural Members and Form & Style; Corresponding member of Construction Requirements and General Requirements: 2028 cycle
 - v. Voting Member of the Executive committee: last quarter of the 2022 cycle and for the 2028 cycle
 - Member of the Existing Masonry Technical Committee (2014- Present)
 - Member of the Meetings Committee
 - Member of the Technical Activities Committee (TAC)- by <u>nomination/invitation</u> (2019-2022)
 - i. Reviewed TMS 402/602-22 edition cover to cover,
 - ii. Reviewed several standards and documents
 - iii. Contributed to TCOM updates
 - <u>Chair of the 14th North American Masonry Conference held in June 2023; and member of the 14NAMC Organizing committee (2019-2023)</u>
 - i. Created and led the inaugural round of all levels K-12, Undergraduate, and Graduate Masonry Competitions
 - Member of the Board of Governors-<u>by nomination/invitation</u> (2021-present)
 - <u>Chapter Author</u> for the Masonry Design Guide 2022 Edition (2022)
 - Member of the new Modular Unfired Clay Units Committee (2023- Present)
 - Reviewer for various papers for the Masonry Society Journal and most NAMCs (2003-Present)
 - Reviewer for various MS and PhD theses for the Research committee
 - Presenter in multiple TMS Annual Meetings
 - One of the three <u>founders</u> of the Women in Masonry Fund

• Architectural Engineering Institute (AEI)

- Member (2002- Present)
- AEI AE-PE review exam webinar instructor: https://www.asce.org/architectural-engineering-pe-exam-review-webinar-series/
- Member of the AEI Academic Council (2013- 2021)
- Editor of the Journal of Architectural Engineering and Chair of the Editorial Board (2011-2019)
- Member of the Journal of Architectural Engineering (2019-Present)

American Society of Civil Engineers (ASCE)

- Member (2002-Present)
- Member of the Paper Awards Committee (2011- 2018)

• Society of Women Engineers (SWE)

- Member (2004- 2013)
- Faculty Adviser of the Omaha Student Chapter (2006-2013)

• Structural Engineers Association of Nebraska (SEAON)

• Member (2004- 2021)

• American Concrete Institute (ACI)

 Reviewer for the ACI Committee 544 for "Report on the Physical Properties and Durability of Fiber-Reinforced Concrete", 2009

• Reviewer for Journals (Selected list):

*Frequent requests

- ACI Materials Journal, American Concrete Institute
- Construction and Building Materials, Elsevier
- Construction Materials, ICE publishing
- Earthquake Engineering and Engineering Vibration, Springer
- Engineering Structures, Elsevier
- *Journal of Architectural Engineering, ASCE
- Journal of Civil Engineering and Construction Technology, Academic Journals
- *Journal of Cultural Heritage, Elsevier
- *Journal of Materials in Civil Engineering, ASCE
- Materials and Structures, Springer
- Structures and Buildings
- *The Masonry Society Journal, TMS

• Other peer-review:

*Names of individuals are not included to ensure their dossiers' confidentiality

- External Reviewer for the Promotion to full professor for a faculty member* at Virginia Tech, 2023
- External Reviewer for the Promotion to full professor for a faculty member* at Oklahoma State University, 2019
- External Reviewer for the Promotion and Tenure dossier of a faculty member* at Tennessee State University, 2019

- External Reviewer for the Promotion and Tenure dossier of a faculty member* at Edinburgh College, Scotland, 2013
- Member of the Technical Committee for ICSDEC 2012 (International Conference on Sustainable Design, Engineering, & Construction) Conference
- External Reviewer for proposals for the Austrian Science Fund (FWF), 2010
- National Science Foundation (NSF) Review Panel member for the CMMI program, 2009
- NSF Review Panel member for the CMMI program, 2007
- NSF Review Panel member for the Dynamic Systems program, 2006
- Reviewer for the National Canadian Research Council (2021-present)