#### Curriculum Vitae for JOHN A. GAMBATESE

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# ACADEMIC BACKGROUND

PhD, 1996	University of Washington, Seattle, WA Department of Civil Engineering Transportation, Surveying, and Construction Engineering Program Dissertation title: "Addressing Construction Worker Safety in the Project Design" Advisor: Jimmie W. Hinze
MS, 1987	University of California at Berkeley, Berkeley, CA Department of Civil Engineering Structural Engineering, Mechanics, and Materials Program
BS, 1986	University of California at Berkeley, Berkeley, CA Department of Civil Engineering

#### WORK EXPERIENCE

Professor	School of Civil and Construction Engineering
2011 - present	Oregon State University, Corvallis, OR
Adjunct Faculty 2012 - present	College of Health and Human Sciences Environmental and Occupational Health and Safety Program Oregon State University, Corvallis, OR
Associate Professor	School of Civil and Construction Engineering
2006 - 2011	Oregon State University, Corvallis, OR
Assistant Professor	Department of Civil, Construction and Environmental Engineering
2000 - 2006	Oregon State University, Corvallis, OR
Director 1998 - 2000	Construction Management Program Department of Civil and Environmental Engineering University of Nevada, Las Vegas, NV

Assistant Professor 1997 - 2000	Department of Civil and Environmental Engineering University of Nevada, Las Vegas, NV
Acting Asst. Prof. 1996 - 1997	Department of Civil Engineering (1-year appointment) University of Washington, Seattle, WA
Project Engineer 1996 - 1997	O'Brien-Kreitzberg & Associates, Seattle, WA Univ. of Washington Electrical Engineering/Computer Science Bldg. Project Responsibilities: Project administration, and change order and claims analysis.
Research Assistant 1994 - 1995	Department of Civil Engineering University of Washington, Seattle, WA
Teaching Assistant 1994 - 1996	Department of Civil Engineering, University of Washington, Seattle, WA Courses: Construction Planning and Scheduling; Construction Computer Applications; Construction Engineering I.
Project Engineer 1987 - 1993	Degenkolb Engineers, San Francisco, CA Responsibilities: Structural engineering design and consulting services for wood, concrete, and steel structures; evaluation and design of seismic reinforcing systems for structures.
Mathematics Tutor 1984 - 1990	University of California at Berkeley, Berkeley, CA Responsibilities: Conduct weekly group workshops and provide individual tutoring in the Athletic Study Center for university students studying calculus.
Engineering Aide Summers, 1984/1985	Laugenour and Meikle, Civil Engineers, Woodland, CA Responsibilities: Prepare preliminary designs of roads, sidewalks, and utilities; perform earthwork quantity take-offs.

#### PROFESSIONAL CONSULTATION

#### **Prevention through Design:**

Skanska USA Commercial Development, Arlington, VA, 2018-2020 Otis Elevator Co., Farmington, CT, 2017 The Southern Co., Birmingham, AL, 2007, 2011, 2016

# **Construction Site Safety:**

Ball Janik, LLP, Attorneys at Law, Portland, OR, 2011, 2015 Romano Law Office, Attorney at Law, Clarksburg, WV, 2011 Forsberg & Umlauf, P.S., Attorneys at Law, Tacoma, WA, 2006 Bullivant, Hauser, Bailey Attorneys at Law, Portland, OR, 2002 Thorner, Kennedy & Gano P.S., Attorneys at Law, Yakima, WA, 1997

# Construction Services Group Vancouver WA 20

Construction Services Group, Vancouver, WA, 2005

# **Project Planning and Scheduling:**

TWC Construction, Inc., Henderson, NV, 1999 – 2000

# **Construction Contracting:**

CH2M-Hill, Corvallis, OR, 2010 - 2011

# PROFESSIONAL REGISTRATIONS

Professional Engineer – Civil, State of California (License No. 44727)

# PROFESSIONAL AND HONORARY SOCIETY MEMBERSHIPS

American Society of Civil Engineers (ASCE), Member, 1986-present; Fellow, 2019-present. Construction Research Council, Member, 1999-present.

Construction Safety Committee, Member, 1999-present; Chair, Site Safety Subcommittee, June 2018-2022.

Temporary Structures Committee, Member, 2004-present.

Constructability Committee (inactive), Member, 2002-present; Founding member and Chair, 2002-2004.

Prevention through Design Committee (inactive), Founding member and Chair, 2007-2009. American Society of Safety Professionals (ASSP), Professional Member, 2001-present.

Consortium of Universities for Research in Earthquake Engineering (CUREE), Member, 2001-present. Chi Epsilon, University of Washington Chapter, Member, 1995-present.

# HONORS AND AWARDS

 2023 John Smallwood Best Paper Award (W123): Alotaibi, A., Gambatese, J., and Lee, W.-H. (2023).
 "Evaluation of Task Characteristics Affecting Worker Mental Workload Using Mixed Methods." *Digital Transformation of Health and Safety in Construction*, CIB W099 & W123 Conference, Porto, Portugal, June 21-22, 2023.

Member, National Academy of Construction (NAC), May 2022 – present.

- 2021 Top 25 Newsmaker, Engineering News-Record (ENR), Jan. 13, 2022, https://www.enr.com/articles/53422-enrs-top-25-newsmakers-2021.
- 2021-2023 Robert C. Wilson Faculty Scholar, School of Civil and Construction Engineering, Oregon State University.

Certificate of Nomination, Oregon State University Family Friendly Faculty Award, March 2018.

Honorable Mention, 2014 Jimmie W. Hinze Best Paper Award: Tymvios, N. and Gambatese, J. (2014). "Owner Views on Designer Participation in Construction Safety." *International Conference on Achieving Sustainable Construction Health and Safety*, W099 – Safety and Health in Construction, International Council for Research and Innovation in Building and Construction (CIB), Lund, Sweden, June 2-3, 2014.

- 2013-2018 Oregon Electric Group Faculty Fellow, School of Civil and Construction Engineering, Oregon State University.
- 2010-2011 CE Excellence Faculty Fellow, School of Civil and Construction Engineering, Oregon State University.
- 2009-2010 Dennis Marker Teacher of the Year Award for faculty teaching in the OSU CEM program. Presented by the Oregon State University AGC Student Chapter.
- 2003 Loyd Carter Award for outstanding and inspirational teaching. Presented by the Oregon State University College of Engineering.
- 2002-2003 Dennis Marker Teacher of the Year Award for faculty teaching in the OSU CEM program. Presented by the Oregon State University AGC Student Chapter.
- 2000-2001 Dennis Marker Teacher of the Year Award for faculty teaching in the OSU CEM program. Presented by the Oregon State University AGC Student Chapter.
- 1995 American Institute of Constructors' (AIC) Student Essay Contest, second place: Gambatese, J.A. and Pulick, M.L. (1996), "Future Information Highway Technologies in the Construction Industry."

Outstanding Tutor of the Year Award, Athletic Study Center, University of California at Berkeley, 1990.

# AREAS OF EXPERTISE

- Construction worker safety and health; Prevention through Design
- Work zone design; work zone safety
- Construction risk and reward
- Construction engineering; temporary construction structures
- Constructability; design-construction interface
- Sustainability; lifecycle properties of constructed facilities
- Systems analysis and engineering
- Construction technologies and innovation

# PEER-REVIEWED JOURNAL ARTICLES

- Jin, Z., Gambatese, J., and Karakhan, A. (2023). "Impacts of State/Province and National Culture Characteristics and Social Responsibility on Workplace Safety." *Journal of Safety Research*, Elsevier. (Submitted for review Aug. 2023)
- Alotaibi, A. and Gambatese, J. (2023). "Impact of Task Demand and Physical Energy on Mental Workload Experienced by Construction Workforce: Insights of Construction Professionals." *Practice Periodical on Structural Design and Construction*, ASCE. (Submitted for review July 2023)
- Jin, Z, Gambatese, J., and Nnaji, C. (2022). "Musculoskeletal Disorder (MSD) Assessment, Prevention and Control for Concrete Formwork Construction." *International Journal of Industrial Ergonomics*, Science Direct. (Submitted for review Feb. 2022)
- Alotaibi, A., Gambatese, J., and Nnaji, C. (2023). "Developing a Novel Energy-based Approach for Measuring Mental Workload." *Heliyon*, Elsevier. (Submitted for review Feb. 2023)

- Jin, Z., Gambatese, J., Karakhan, A., and Nnaji, C. (2023). "Analysis of Prevention through Design Studies in Construction: A Subject Review." *Journal of Safety Research*, Elsevier, 84, 138-154, DOI: 10.1016/j.jsr.2022.10.015.
- 2. Nnaji, C., Okpala, I., Awolusi, I., and Gambatese, J. (2023). "A systematic review of technology acceptance models and theories in construction research." *Journal of Information Technology in Construction*, ITcon, 28, 39-69, DOI: 10.36680/j.itcon.2023.003.
- 3. Okpala, I., Nnaji, C., and Gambatese, J. (2023). "Assessment Tool for Human-Robot Interaction Safety Risks during Construction Operations." *Journal of Construction Engineering and Management* (JCEM), ASCE, 149(1), 04022145, DOI: 10.1061/(ASCE)CO.1943-7862.0002432.
- Jin, Z. and Gambatese, J. (2023). "BIM-Based Timber Formwork Design and Modeling." *Practice Periodical on Structural Design and Construction*, ASCE, 28(1), 04022057, DOI: 10.1061/(ASCE)SC.1943-5576.0000753.
- 5. Karakhan, A.A., Nnaji, C.A., Gambatese, J.A., and Simmons, D.R. (2023). "Best Practice Strategies for Workforce Development and Sustainability in Construction." *Practice Periodical on Structural Design and Construction*, ASCE, 28(1), 04022058, DOI: 10.1061/(ASCE)SC.1943-5576.0000746.
- Karakhan, A.A., Gambatese, J., Simmons, D.R., Albert, A., and Breesam, H.K. (2022). "Leading Indicators of the Health and Well-Being of the Construction Workforce: Perception of Industry Professionals." *Practice Periodical on Structural Design and Construction*, ASCE, 289(1), 04022054, DOI: 10.1061/(ASCE)SC.1943-5576.0000747.
- Nnaji, C., Okpala, I., Gambatese, J., and Jin, Z. (2022). "Controlling Safety and Health Challenges Intrinsic in Exoskeleton Use in Construction." Special Issue – The Use of Emerging Technologies to Enhance Construction Safety, *Safety Science*, Elsevier, 157, Jan. 2023, 105943, DOI: 10.1016/j.ssci.2022.105943.
- Osburn, L., Lee, H.W., and Gambatese, J. (2022). "Formal Prevention through Design (PtD) Process and Implementation for Mechanical/Electrical/Plumbing Worker Safety" (Case Study). *Journal of Management in Engineering*, ASCE, 38(5), 05022011, DOI: 10.1061/(ASCE)ME.1943-5479.0001083.
- Ahmed, A., Mohammed, H.A., Gambatese, J., and Hurwitz, D.S. (2021). "Effects of Flashing Blue Lights Mounted on Paving Equipment on Vehicle Speed Behavior in Work Zones." *Journal of Construction Engineering and Management*, ASCE, 147(9), 04021101, DOI: 10.2061/(ASCE)CO.1943-7862.0002133.
- Karakhan, A.A., Gambatese, J.A., Simmons, D.R., and Al-Bayati, A.J. (2020). "Identifying Pertinent Indicators for Assessing and Fostering Diversity, Equity, and Inclusion of the Construction Workforce." *Journal of Management in Engineering*, ASCE, 37(2), 04020114, DOI: 10.1061/(ASCE)ME.1943-5479.0000885.
- Nnaji, C., Lee, H.W., Gambatese, J.A., Karakhan, A.A. (2020). "Case Study to Evaluate Work Zone Safety Technologies in Highway Construction." *Practice Periodical on Structural Design and Construction*, ASCE, 25(3), 05020004, DOI: 10.1061/(ASCE)SC.1943-5576.0000498.
- 12. Tymvios, N., Behm, M., Hardison, D., Hallowell, M., and Gambatese, J. (2020). "Revisiting Lorent and Szymberski: Evaluating how research in prevention through design is interpreted and cited." *Safety Science*, Elsevier, 131 (2020), 104927.
- AlOmari, K., Gambatese, J., Nnaji, C., and Tymvios, N. (2020). "Impact of Risk Factors on Construction Worker Safety: A Delphi Rating Study Based on Field Worker Perspective." *Arabian Journal of Science and Engineering* (AJSE), Springer, 45, 8041-8051, <u>https://doi.org/10.1007/s13369-020-04591-7</u>, May 7, 2020.

- Nabi, M.A., El-adaway, I.H., Fayek, S., Howell, C. and Gambatese, J. (2020). "Contractual Guidelines for Construction Safety-Related Issues under Design-Build Standard Forms of Contract." *Journal of Construction Engineering and Management*, ASCE, 146(7), 04020074.
- Jin, Z. and Gambatese, J. (2020). "Exploring the Potential of Technological Innovations for Temporary Structures: A Survey Study." *Journal of Construction Engineering and Management*, ASCE, 146(6), 04020049, DOI: 10.1061/(ASCE)CO.1943-7862.0001828.
- Liu, D. and Gambatese, J. (2020). "Construction Worker and Equipment Energy Consumption for Off-site Precast Concrete." *Practice Periodical on Structural Design and Construction*, ASCE, 25(2), 04020007, DOI: 10.1061/(ASCE)SC.1943-5576.0000474.
- Nnaji, C., Jafarnejad, A., and Gambatese, J. (2020). "Effects of Wearable Light Systems on Safety of Highway Construction Workers." *Practice Periodical on Structural Design and Construction*, ASCE, 25(2), 04020003, DOI: 10.1061/(ASCE)SC.1943-5576.0000469.
- Nnaji, C., Gambatese, J., Lee, H.W., and Zhang, F. (2020). "Improving Construction Work Zone Safety Using Technology: A Systematic Review of Applicable Technologies." *Journal of Traffic and Transportation Engineering*, ScienceDirect, Elsevier, 7(1), 61-75, Feb. 2020, <u>https://doi.org/10.1016/j.jtte.2019.11.001</u>.
- Nnaji, C., Gambatese, J., Karakhan, A., and Osei-Kyei, R. (2020). "Development and Application of Safety Technology Adoption Decision-making Tool." *Journal of Construction Engineering and Management*, ASCE, 146(4), 04020028, DOI: 10.1061/(ASCE)CO.1943-7862.0001808.
- Ho, C., Lee, H.W., and Gambatese, J. (2020). "Application of Prevention through Design (PtD) to Improve the Safety of Solar Installations on Small Buildings." *Safety Science*, Elsevier, 125, May 2020, 104633.
- Karakhan, A., Gambatese, J., and Simmons, D. (2020). "Development of Assessment Tool for Workforce Sustainability." *Journal of Construction Engineering and Management*, ASCE, 146(4), 04020017, DOI: 10.1061/(ASCE)CO.1943-7862.0001794.
- 22. Liu, D., Jin, Z., and Gambatese, J. (2019). "Scenarios for Integrating IPS-IMU System with BIM Technology in Construction Safety Control" (Case Study). *Practice Periodical on Structural Design and Construction*, ASCE, 25(1), 05019007, DOI: 10.1061/(ASCE)SC.1943-5576.0000465.
- 23. Nnaji, C., Gambatese, J., Karakhan, A., and Eseonu, C. (2019). "Influential Safety Technology Adoption Predictors in Construction." *Engineering, Construction and Architectural Management*, Emerald Insight, <u>http://doi.org/10.1108/ECAM-09-2018-0381</u>.
- 24. Fischer, E.C., Gambatese, J., and Shephard, A.B. (2019). "Holistic Approach to Resilience of Steelframe Construction in Fire." *Practice Periodical on Structural Design and Construction*, ASCE, 24(4), 04019020.
- 25. Jin, Z., Gambatese, J., Liu, D., and Dharmapalan, V. (2019). "Using 4D BIM to Assess Construction Risks during the Design Phase." *Engineering, Construction and Architectural Management*, Emerald Insight, <u>http://doi.org/10.1108/ECAM-09-2018-0379</u>.
- 26. Azeez, M., Gambatese, J., and Hernandez, S. (2019). "What Do Construction Workers Really Want? A Study about Representation, Importance, and Perception of US Occupational Rewards." *Journal of Construction Engineering and Management*, ASCE, 145(7), 04019040.
- AlOmari, K., Gambatese, J., and Tymvios, N. (2018). "Risk Perception Comparison among Construction Safety Professionals: Delphi Perspective." *Journal of Construction Engineering and Management*, ASCE, 144(12), 04018107.
- 28. Liu, D. and Gambatese, J. (2018). "Student Education and Training Needs for Safety in Roadway Engineering Field Work." *Journal of Professional Issues in Engineering Education and Practice*, ASCE, 144(4), 04018012, DOI: 10.1061/(ASCE)EI.1943- 5541.0000394.

- 29. Lee, H.W., Harapanahalli, B.A., Nnaji, C., Kim, J., and Gambatese, J. (2018). "Feasibility of Using QR Codes in Highway Construction Document Management." *Transportation Research Record*, Journal of the Transportation Research Board of the National Academies, Washington, D.C., June 2018, DOI: 10.1177/0361198118776133.
- 30. Karakhan, A., Rajendran, S., Gambatese, J., and Nnaji, C. (2018). "Measuring and Evaluating Safety Maturity of Construction Contractors: Multicriteria Decision-Making Approach." *Journal of Construction Engineering and Management*, ASCE, 144(7), 04018054.
- Nnaji, C., Gambatese, J., and Lee, H.W. (2018). "Work Zone Intrusion Technology to Reduce Injuries & Fatalities." *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 63(4), 36-41, April 2018 (ASSE Doc. ID #ASSE-18-04-36).
- 32. Nnaji, C., Lee, H.W., Karakhan, A., and Gambatese, J. (2018). "Developing a Decision-Making Framework to Select Safety Technologies for Highway Construction." *Journal of Construction Engineering and Management*, ASCE, 144(4), 04018016.
- 33. Karakhan, A. and Gambatese, J. (2018). "Hazards and Risk in Construction and the Impact of Incentives and Rewards on Safety Outcomes." *Practice Periodical on Structural Design and Construction*, ASCE, 23(2), 04018005.
- 34. Gambatese, J., Gibb, A., Bust, P., and Behm, M. (2017). "Expanding Prevention through Design (PtD) in practice: innovation, change, and a path forward." *Journal of Construction Project Management and Innovation*, SA ePublications, 7(2), 1995-2006, Dec. 2017, <a href="http://journals.co.za/content/journal/jcpmi\_v7\_n2">http://journals.co.za/content/journal/jcpmi\_v7\_n2</a>. (Selected papers from the *Proceedings of the Joint CIB W099 and TG59 International Safety, Health, and People in Construction Conference*, sponsored by Nelson Mandela Metropolitan University and Central University of Technology, Free State, Cape Town, South Africa, June 11-13, 2017.)
- 35. Karakhan, A.A. and Gambatese, J.A. (2017). "Safety Innovation and Integration in High-Performance Designs: Benefits, Motivations, and Obstacles." Special collection on construction safety, *Practice Periodical on Structural Design and Construction*, ASCE, 22(4), 04017018, DOI: 10.1061/(ASCE)SC.1943-5576.0000338. (Invited)
- 36. Karakhan, A.A. and Gambatese, J.A. (2017). "Integrating Worker Health and Safety into Sustainable Design and Construction: Designer and Constructor Perspectives." *Journal of Construction Engineering and Management*, ASCE, 143(9), 04017069, DOI: 10.1061/(ASCE)CO.1943-7862.0001379.
- 37. Gambatese, J.A., Gibb, A.G., Brace, C., and Tymvios, N. (2017). "Motivation for Prevention through Design: Experiential Perspectives and Practice." Special collection on construction safety, *Practice Periodical on Structural Design and Construction*, ASCE, 22(4), 04017017, DOI: 10.1061/(ASCE)SC.1943-5576.0000335. (Invited)
- Zhang, F. and Gambatese, J.A. (2017). "Highway Construction Work-Zone Safety: Effectiveness of Traffic-Control Devices." Special collection on construction safety, *Practice Periodical on Structural Design and Construction*, ASCE, 22(4), 04017010, DOI: 10.1061/(ASCE)SC.1943-5576.0000327. (Invited)
- 39. Jafarnejad A., Gambatese, J., and Hernandez, S. (2017). "Influence of Truck-mounted Radar Speed Signs in Controlling Vehicle Speed for Mobile Maintenance Operations: Oregon Case Study." *Transportation Research Record*, Journal of the Transportation Research Board of the National Academies, Washington, D.C., No. 2617, pg. 19-26, DOI: 10.3141/2617-03.
- Alexander, D., Hallowell, M., and Gambatese, J. (2017). "Precursors of Construction Fatalities II: Predictive Modeling and Empirical Validation." *Journal of Construction Engineering and Management*, ASCE, 143(7), 04017024, DOI: 10.1061/(ASCE)CO.1943-7862.0001297.

- 41. Alexander, D., Hallowell, M., and Gambatese, J. (2017). "Precursors of Construction Fatalities I: Iterative Experiment to Test the Predictive Validity of Human Judgment." *Journal of Construction Engineering and Management*, ASCE, 143(7), 04017023, DOI: 10.1061/(ASCE)CO.1943-7862.0001304.
- 42. Gambatese, J.A., Toole, T.M., and Abowitz, D.A. (2017). "Owner Perceptions of Barriers to Prevention through Design Diffusion." *Journal of Construction Engineering and Management*, ASCE, 143(7), 04017016, DOI: 10.1061/(ASCE)CO.1943-7862.0001296.
- 43. Karakhan, A. and Gambatese, J. (2017). "Identification, Quantification, and Classification of Potential Safety Risk for Sustainable Construction in the United States." *Journal of Construction Engineering and Management*, ASCE, 143(7), 04017018, DOI: 10.1061/(ASCE)CO.1943-7862.0001302.
- 44. AlOmari, K., Gambatese, J., and Anderson, J. (2017). "Opportunities for Using Building Information Modeling to Improve Worker Safety Performance." *Safety*, Multidisciplinary Digital Publishing Institute (MDPI), Basel, Switzerland, 3(7), DOI: 10.3390/safety3010007.
- 45. Hallowell, M.R., Alexander, D., and Gambatese, J.A. (2017). "Energy-based Safety Risk Assessment: Does Magnitude and Intensity of Energy Predict Injury Severity?" *Construction Management and Economics*, Routledge, 35(1-2), 64-77, DOI: 10.1080/01446193.2016.1274418.
- 46. Jeelani, I., Albert, A., and Gambatese, J.A. (2016). "Why Do Construction Hazards Remain Unrecognized at the Work Interface?" *Journal of Construction Engineering and Management*, ASCE, 143(5), 04016128, DOI: 10.1061/(ASCE)CO.1943-7862.0001274.
- 47. Gambatese, J. and Zhang, F. (2016). "Impact of Advisory Signs on Vehicle Speeds in Highway Nighttime Paving Project Work Zones." *Transportation Research Record*, Journal of the Transportation Research Board of the National Academies, Washington, D.C., No. 2555, pp. 65-71, DOI: 10.3141/2555-08.
- 48. Gambatese, J.A., Pestana, C., and Lee, H.W. (2016). "Alignment between Lean Principles and Practices and Worker Safety Behavior." *Journal of Construction Engineering and Management*, ASCE, 143(1), DOI: 10.1061/(ASCE)CO.1943-7862.0001209.
- 49. Toole, T.M., Gambatese, J.A., and Abowitz, D.A. (2016). "Owners' Role in Facilitating Prevention through Design." *Journal of Professional Issues in Engineering Education and Practice*, ASCE, 143(1), 04016012, DOI: 10.1061/(ASCE)IE.1943-5541.0000295.
- Tymvios, N. and Gambatese, J.A. (2016). "Direction for Generating Interest for Design for Construction Worker Safety – A Delphi Study." *Journal of Construction Engineering and Management*, ASCE, 142(8), 04016024, DOI: 10.1061/(ASCE)CO.1943-7862.0001134.
- 51. Gambatese, J. and AlOmari, K. (2016). "Degrees of connectivity: Systems model for upstream risk assessment and mitigation." Special Issue on Systems Thinking in Construction, *Accident Analysis & Prevention*, Elsevier, 93, 251-259, DOI: 10.1016/j.aap.2015.12.020.
- 52. Tymvios, N. and Gambatese, J.A. (2015). "Perceptions about Design for Construction Worker Safety: Viewpoints from Contractors, Designers, and University Facility Owners." *Journal of Construction Engineering and Management*, ASCE, 142(2), 04015078, DOI: 10.1061/(ASCE)CO.1943-7862.0001067.
- 53. Dharmapalan, V., Gambatese, J.A., Fradella, J., and Vahed, A.M. (2015). "Quantification and Assessment of Safety Risk in the Design of Multistory Buildings." *Journal of Construction Engineering and Management*, ASCE, 141(4), 04014090, DOI: 10.1061/(ASCE)CO.1943-7862.0000952.
- 54. Gambatese, J. and Johnson, M. (2014). "Impact of Design and Construction on Quality, Consistency, and Safety of Traffic Control Plans." *Transportation Research Record*, Journal of the Transportation

Research Board of the National Academies, Washington, D.C., No. 2458, pp. 47-55, DOI: 10.3141/2458-06.

- 55. Lee, H.W., Choi, K., and Gambatese, J.A. (2014). "Real Options Valuation of Phased Investments in Commercial Energy Retrofits under Building Performance Risks." *Journal of Construction Engineering and Management*, ASCE, 140(6), 05014004.
- 56. Lopez-Arquillos, A., Rubio-Romero, J.C., Gibb, A., and Gambatese, J.A. (2013). "Safety Risk Assessment for Vertical Concrete Formwork Activities in Civil Engineering Construction." Work: A Journal of Prevention, Assessment and Rehabilitation, IOS Press, 49(2), 183-192, Sept. 2013.
- 57. Rajendran, S. and Gambatese, J.A. (2013). "Risk and Financial Impacts of Prevention through Design Solutions." *Practice Periodical on Structural Design and Construction*, ASCE, 18(1), 67-72.
- Gambatese, J., Hallowell, M., Renshaw, F., Quinn, M., and Heckel, P. (2013). "Prevention through Design: Research – The Power of Collaboration." *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 58(1), 48-54.
- Gambatese, J.A. and Tymvios, N. (2012). "LEED Credits: How They Affect Construction Worker Safety." *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 57(10), 42-52.
- 60. Gambatese, J.A. and Rajendran, S. (2012). "Flagger Illumination during Nighttime Construction and Maintenance Operations." *Journal of Construction Engineering and Management*, ASCE, 138(2), 250-257.
- 61. Gambatese, J.A. and Rajendran, S. (2011). "Assessment of Nighttime Flagger-Illumination Practices." *Practice Periodical on Structural Design and Construction*, ASCE, 16(3), 95-105.
- 62. Gambatese, J.A. and Hallowell, M. (2011). "Enabling and Measuring Innovation in the Construction Industry." *Construction Management and Economics*, Taylor & Francis, Routledge, 29(6), 553-567.
- 63. Gambatese, J.A. and Hallowell, M. (2011). "Factors that Influence the Development and Diffusion of Technical Innovations in the Construction Industry." *Construction Management and Economics*, Taylor & Francis, Routledge, 29(5), 507-517.
- 64. Hallowell, M.R. and Gambatese, J.A. (2010). "Population and Initial Validation of a Formal Model for Construction Safety Risk Management." *Journal of Construction Engineering and Management*, ASCE, 136(9), 981-990.
- 65. Hallowell, M.R. and Gambatese, J.A. (2009). "Qualitative Research: Application of the Delphi Method to CEM Research." Special Issue: Research Methodologies in Construction Engineering and Management, *Journal of Construction Engineering and Management*, ASCE, 136(1), 99-107.
- 66. Hallowell, M.R. and Gambatese, J.A. (2009). "Construction Safety Risk Mitigation." *Journal of Construction Engineering and Management*, ASCE, 135(12), 1316-1323.
- Hallowell, M.R. and Gambatese, J.A. (2009). "Activity-Based Safety Risk Quantification for Concrete Formwork Construction." *Journal of Construction Engineering and Management*, ASCE, 135(10), 990-998.
- 68. Rajendran, S., and Gambatese, J.A. (2009). "Development and Initial Validation of Sustainable Construction Safety and Health Rating System." *Journal of Construction Engineering and Management*, ASCE, 135(10), 1067-1075.
- 69. Rajendran, S., Gambatese, J.A., and Behm, M.G. (2009). "Impact of Green Building Design and Construction on Worker Safety and Health." *Journal of Construction Engineering and Management*, ASCE, 135(10), 1058-1066.
- 70. Gambatese, J.A., Behm, M., and Rajendran, S. (2008). "Design's Role in Construction Accident Causality and Prevention: Perspectives from an Expert Panel." *Safety Science*, Special issue for

selected papers from the CIB W99 International Conference on Global Unity for Safety & Health in Construction, Beijing, China, June 28-30, 2006. Elsevier, 46, 675-691.

- 71. Toole, T.M. and Gambatese, J.A. (2008). "The Trajectories of Prevention through Design in Construction." *Journal of Safety Research*, Special issue on Prevention through Design, Elsevier and the National Safety Council, 39, 225-230.
- Gambatese, J.A. (2008). "Research Issues in Prevention through Design." *Journal of Safety Research*, Special Issue on Prevention through Design, Elsevier and the National Safety Council, 39(2), 153-156.
- 73. Gambatese, J.A., Rajendran, S., and Behm, M.G. (2007). "Green Design & Construction: Understanding the Effects on Construction Worker Safety and Health." *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 52(5), 28-35.
- 74. Rajendran, S. and Gambatese, J.A. (2007). "Solid Waste Generation in Asphalt and Reinforced Concrete Roadway Life Cycles." *Journal of Infrastructure Systems*, ASCE, 13(2), 88-96.
- 75. Gambatese, J.A. (2006). "Current Practice for Illuminating Flaggers during Nighttime Roadway Construction Operations." Special Issue on "Best Practices for Construction Safety." Ed.: Hinze, J., *International e-Journal of Construction*, University of Florida, M.E. Rinker School of Building Construction, March 2006.
- 76. Pocock, J.B., Kuennen, S.T., Gambatese, J., and Rauschkolb, J. (2006). "Constructability State of Practice Report." *Journal of Construction Engineering and Management*, ASCE, 132(4), 373-383.
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# PEER-REVIEWED CONFERENCE PROCEEDINGS

- 1. Alotaibi, A., Gambatese, J., Tymvios, N. (2023). "Impacts of Work Setting and Task Complexity on Mental Workload and Safety: An Experimental Study." In *Proceedings of the CI & CRC Joint Conference 2024*, ASCE, Des Moines, Iowa, March 20-23, 2024. (Submitted for review, May 2023)
- Lee, W-H., Gambatese, J., Hallowell, M., Nnaji, C. (2023). "Impact of Last-minute Changes on Construction Safety." In *Proceedings of the CI & CRC Joint Conference 2024*, ASCE, Des Moines, Iowa, March 20-23, 2024. (Submitted for review, May 2023)
- 3. Dai, Q., Gambatese, J., and Alotaibi, A. (2023). "Relationship between Lean Construction Practices and Construction Industrialization Methods." In *Proceedings of the CI & CRC Joint Conference* 2024, ASCE, Des Moines, Iowa, March 20-23, 2024. (Submitted for review, May 2023)
- 4. Dang, H., Rajendran, S., Gambatese, J., and Kime, M. (2023). "Training Development of Infectious Diseases for Construction Workers." In *Proceedings of the CI & CRC Joint Conference 2024*, ASCE, Des Moines, Iowa, March 20-23, 2024. (Submitted for review, May 2023)
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- 13. In Proceedings of the Construction Institute and Construction Research Congress Joint Conference 2022, ASCE, Arlington, VA, March 9-12, 2022:
  - a. Jin, Z. and Gambatese, J. (2022). "Musculoskeletal Disorders in Concrete Formwork Construction."
  - b. Okpala, I., Nnaji, C., and Gambatese, J. (2022). "Investigating Hazards and Safety Risks Inherent in Human-Robot Interactions."
- Tymvios, N. and Gambatese, J. (2021). "Expectations for Future Health and Safety Professionals from Current Professionals in Construction." 2021 ASEE Annual Conference & Exposition, American Society for Engineering Education (ASEE), July 26-29, 2021.
- 15. In Proceedings of the Construction Research Congress 2020, ASCE, Tempe, AZ, March 8-10, 2020:
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  - b. Azeez, M., Karakhan, A., and Gambatese, J. (2020). "Risk Perception of Construction Personnel: A Social Construct Outlook," pp. 555-564, <u>https://doi.org/10.1061/9780784482889.058</u>.
  - c. Jin, Z. and Gambatese, J. (2020). "A Fuzzy Multi-Criteria Decision Approach to Technology Selection for Concrete Formwork Monitoring," pp. 76-85, https://doi.org/10.1061/9780784482865.009.

- d. Karakhan, A., Gambatese, J., Simmons, D., and Nnaji, C. (2020). "How to Improve Workforce Development and Sustainability in Construction," pp. 21-30, <u>https://doi.org/10.1061/9780784482872.003</u>.
- e. Liu, D., Jin, Z., and Gambatese, J. (2020). "Construction Workers' Long Term Health Impacts among Different Trades," pp. 11-20, <u>https://doi.org/10.1061/9780784482872.002</u>.
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  - c. Azeez, M., Gambatese, J., and Liu, D. (2019). "Comparison of Job Cognitive and Physical Demands in Different Industries for Implications on Safety Outcomes."
  - d. Jin, Z. and Gambatese, J. (2019). "BIM for Temporary Structures: Development of a Revit API Plug-in for Concrete Formwork."
  - e. Tymvios, N. and Gambatese, J. (2019). "Benefit/Cost Model for Evaluating Prevention through Design (PtD) Solutions."
  - f. Zhang, F. and Gambatese, J. (2019). "Introducing the Concept of Foundational Attributes of Construction Projects."
- 17. In *Proceedings of the Joint CIB W099 and TG59 International Safety, Health, and People in Construction Conference*, International Council for Research and Innovation in Building and Construction (CIB), Salvador, Brazil, Aug. 1-3, 2018:
  - a. Liu, D., Gambatese, J., and Jin, Z. (2018). "Construction Safety Training Methods and Effectiveness for Non-Native Workers."
  - b. Jin, Z., Gambatese, J., Liu, D., and Dharmapalan, V. (2018). "Risk Assessment in Four-Dimensional Building Information Modeling for Multistory Buildings."
  - c. Nnaji, C., Gambatese, J., and Karakhan, A. (2018). "Predictors of Safety Technology Adoption in Construction."
- 18. In *Proceedings of the Construction Research Congress 2018*, ASCE, New Orleans, LA, April 2-4, 2018:
  - a. Karakhan, A., Gambatese, J., AlOmari, K., and Liu, D. (2018). "Consideration of Worker Safety in the Design Process: A Statistical-based Approach Using Analysis of Variance (ANOVA)."
  - b. Karakhan, A., Rajendran, S., and Gambatese, J. (2018). "Validation of Time-Safety Influence Curve Using Empirical Safety and Injury Data."
  - c. Jin, Z. and Gambatese, J. (2018). "Temporary Construction Signage: Driver Preferences for Work Zone Safety."
  - d. Liu, D. and Gambatese, J. (2018). "Energy Consumption by Construction Workers for Onsite Activities."
  - e. Azeez, M. and Gambatese, J. (2018). "Using the Risk Target Concept to Investigate Construction Workers' Potential Biases in Assigning/Assuming Safety Risk."
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- h. Ho, C., Lee, H.W., and Gambatese, J.A. (2018). "Improving Safety in Solar Energy System Installations through Prevention through Design."
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- 19. In *Proceedings of the Joint CIB W099 and TG59 International Safety, Health, and People in Construction Conference*, sponsored by Nelson Mandela Metropolitan University (NMMU) and Central University of Technology, Free State (CUT), Cape Town, South Africa, June 11-13, 2017:
  - a. Gambatese, J., Gibb, A., Bust, P., and Behm, M. (2017). "Expanding Prevention through Design (PtD) in Practice: Innovation, Change, and a Path Forward."
  - b. Toole, T.M. and Gambatese, J. (2017). "Levels of Implementation of Prevention through Design in the United States."
  - c. Gambatese, J., Nnaji, C., and Christianson, C.R. (2017). "Contracting for Prevention through Design (PtD): A Case Study."
  - d. Nnaji, C., Gambatese, J., Awolusi, I., and Oyeyipo, O. (2017). "Construction Safety Innovation Awareness and Adoption in Nigeria: A Mixed Method Approach."
- 20. Karakhan, A., Gambatese, J., and Rajendran, S. (2016). "Application of Choosing by Advantages Decision-making System to Select Fall Protection Measures." *International Group for Lean Construction (IGLC) 24<sup>th</sup> Annual Conference*, Boston, MA, July 20-22, 2016.
- 21. In *Proceedings of the 2016 Construction Research Congress*, ASCE, San Juan, Puerto Rico, May 31 June 2, 2016:
  - a. AlOmari, K., Gambatese, J., and Olsen, M.J. (2016). "Role of BIM and 3D Laser Scanning on Jobsites from the Perspective of Construction Project Management Personnel."
  - b. AlOmari, K. and Gambatese, J.A. (2016). "Degrees of Connectivity Impact on Construction Worker Safety."
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  - d. Pestana, C. and Gambatese, J. (2016). "Lean Practices and Safety Performance."
  - e. Vahed, A.M., Gambatese, J.A., and Hendricks, M.T. (2016). "Perceptions of the Influence of Personal and Demographic Factors on Safety Performance of Field Employees."
  - f. Zhang, F. and Gambatese, J.A. (2016). "Impacts of Construction Work Zone Equipment and Operations on Vehicle Speeds."
- Tymvios, N., Behm, M., Gambatese, J., Lingard, H., Gibb, A., Smallwood, J., McAleenan, C. (2015). "Revisiting Lorent." *International Health and Safety Conference: Benefitting Workers and Society through Inherently Safe(r) Construction*, CIB W099 Safety and Health in Construction, Ulster University, Jordanstown Campus, Belfast, Northern Ireland, September 10-11, 2015.
- 23. AlOmari, K. and Gambatese, J.A. (2015). "Ironworker Perspectives on Accident Causes and Improving Safety Planning." *International Health and Safety Conference: Benefitting Workers and Society through Inherently Safe(r) Construction*, CIB W099 – Safety and Health in Construction, Ulster University, Jordanstown Campus, Belfast, Northern Ireland, September 10-11, 2015.
- 24. Alexander, D., Hallowell, M., and Gambatese, J. (2015). "Energy-based Safety Risk Management: Using Hazard Energy to Predict Injury Severity." 5<sup>th</sup> International/11<sup>th</sup> Construction Specialty Conference, Canadian Society of Civil Engineers (CSCE), Vancouver, British Columbia, June 8-10, 2015.
- 25. Rajendran, S. and Gambatese, J. (2014). "Additional Evidence of the Sustainable Construction Safety and Health (SCSH) Rating System's Effectiveness." *International Conference on Achieving Sustainable Construction Health and Safety*, W099 – Safety and Health in Construction,

International Council for Research and Innovation in Building and Construction (CIB), Lund, Sweden, June 2-3, 2014, pp. 270-282.

- 26. Tymvios, N. and Gambatese, J. (2014). "Owner Views on Designer Participation in Construction Safety." *International Conference on Achieving Sustainable Construction Health and Safety*, W099 Safety and Health in Construction, International Council for Research and Innovation in Building and Construction (CIB), Lund, Sweden, June 2-3, 2014, pp. 481-491.
- 27. Lee, H.W., Kunhee, C., Gambatese, J.A., and Kim, D. (2014). "Financial Valuation for Commercial Energy Retrofits under Private Risks." *Proceedings of the 2014 Construction Research Congress*, ASCE, Atlanta, GA, May 19-21, 2014, pp. 524-533.
- 28. Tymvios, N. and Gambatese, J. (2014). "Evaluation of a Mobile Work Zone Barrier System." *Proceedings of the 2014 Construction Research Congress*, ASCE, Atlanta, GA, May 19-21, 2014, pp. 1762-1771.
- 29. Zhang, F., Gambatese, J.A., and Vahed, A.M. (2014). "Implementation of Traffic Control Devices on Highway Preservation Projects to Enhance Construction Work Zone Safety." *Proceedings of the* 2014 Construction Research Congress, ASCE, Atlanta, GA, May 19-21, 2014, pp. 1782-1791.
- 30. Barbosa, A., Gambatese, J., Das, A., and Pestana, A.C. (2014). "Mapped Workflow for Safety and Reliability Assessments of Use and Re-use of Formwork." *Proceedings of the 2014 Construction Research Congress*, ASCE, Atlanta, GA, May 19-21, 2014, pp. 1821-1830.
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- 32. Gambatese, J. and Tymvios, N. (2012). "Designer and Contractor Perception of Project and Cost Impacts of Engineered Safety Solutions." *Proceedings of the CIB W099 International Conference on* "Modeling and Building Health and Safety", Singapore, Sept. 10-11, 2012, pp. 240-250.
- 33. Tymvios, N., Gambatese, J., and Sillars, D. (2012). "Designer, Contractor, and Owner Views on the Topic of Design for Construction Worker Safety." *Proceedings of the ASCE Construction Research Congress 2012*, West Lafayette, IN, May 21-23, 2012.
- 34. Dharmapalan, V. and Gambatese, J.A. (2012). "Comparison of Design Risk Factors of Multistory Commercial Office Buildings." *Proceedings of the ASCE Construction Research Congress 2012*, West Lafayette, IN, May 21-23, 2012.
- 35. Zhang, F. and Gambatese, J. (2011). "Subcontractor Involvement in LEED Building Projects," *Proceedings of the International Conference on Sustainable Design and Construction*, Kansas City, MO, March 23-25, 2011. ASCE, pp. 391-397.
- 36. Gambatese, J.A. and Johnson, M. (2011). "Comparison of Design and Construction Perspectives of Traffic Control Plan Quality, Consistency, and Safety." 2<sup>nd</sup> International Conference on Transportation Construction Management, Orlando, FL, Feb. 7-10, 2011.
- 37. Gambatese, J.A., Gibb, A.G., Bust, P., and Behm, M. (2009). "Industry's Perspective of Design for Safety Regulations." Working Together: Planning, Designing, and Building a Health and Safe Construction Industry, CIB W99 Conference, Melbourne, Australia, Oct. 21-23, 2009.
- 38. Behm, M., Lentz, T.J., Heidel, D., and Gambatese, J.A. (2009). "Prevention through Design and Green Buildings: A US Perspective on Collaboration." *Working Together: Planning, Designing, and Building a Health and Safe Construction Industry*, International Council for Research and Innovation in Building and Construction (CIB) W99 Conference, Melbourne, Australia, Oct. 21-23, 2009.

- 39. Hallowell, M.R., Gambatese, J.A., and Toole, T.M. (2008). "A Systems Model of Construction Innovation." *Proceedings of the 2008 Conference for Leadership and Management in Engineering*, Lake Tahoe, CA, October 16-19, 2008.
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- 41. Hallowell, M. and Gambatese, J.A. (2008). "Quantification and Communication of Construction Safety Risk." *Evolution of and Directions in Construction Safety and Health*, International Council for Research and Innovation in Building and Construction (CIB) W99 Working Commission Rinker International Conference, Gainesville, FL, March 9-11, 2008.
- 42. Hallowell, M. and Gambatese, J. (2007). "A Formal Model for Construction Safety Risk Management." *Construction and Building Research Conference (COBRA)*, sponsored by the Royal Institution of Chartered Surveyors and Georgia Tech University, Atlanta, GA, Sept. 6-7, 2007.
- 43. Gambatese, J.A., Hallowell, M., and Sillars, D.N. (2007). "Benchmark of Innovation in the Architecture/Engineering/Construction Industry." *Proceedings of the 2007 Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- 44. Toole, T. Michael and Gambatese, J.A. (2007). "The Future of Designing for Construction Safety." *Proceedings of the 2007 Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- 45. Rajendran, S. and Gambatese, J.A. (2007). "Sustainable Construction Safety and Health Rating System – A Feasibility Study." *Proceedings of the 2007 ASCE Construction Research Congress*, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007.
- 46. Hecker, S., Gambatese, J.A., and Weinstein, M. (2006). "Designing for Construction Safety in the U.S.: Progress, Needs, and Future Directions." *IEA2006*, 16<sup>th</sup> World Congress on Ergonomics, International Ergonomics Association (IEA), Maastricht, The Netherlands, July 10-14, 2006.
- 47. Gambatese, J.A., Behm, M., and Rajendran, S. (2006). "Additional Evidence of Design's Influence on Construction Fatalities." *International Conference on Global Unity for Safety & Health in Construction*, sponsored by the International Council for Research and Innovation in Building and Construction (CIB) W99 Working Commission and Tsinghua University, Beijing, China, June 28-30, 2006.
- 48. Gambatese, J.A. and Rajendran, S. (2005). "Sustainable Roadway Construction: Energy Consumption and Material Waste Generation of Roadways." *Proceedings of the Construction Research Congress 2005*, San Diego, CA, April 5-7, 2005. Reston, VA: ASCE, 104-110.
- 49. In *Designing for Safety and Health in Construction*, Hecker, S., Gambatese, J., and Weinstein, M., Editors (2004). Eugene, OR: University of Oregon Press.
  - a. Hecker, S., Gambatese, J., and Weinstein, M., "Introduction," 1-10.
  - b. Gambatese, J.A., Behm, M., and Hinze, J.W., "Pilot Study of the Viability of Designing for Construction Worker Safety," 22-43.
  - c. Gambatese, J.A., "An Overview of Design-for-Safety Tools and Technologies," 109-117.
  - d. Hecker, S., Gambatese, J., and Weinstein, M., "Life Cycle Safety: An Intervention to Improve Construction Worker Safety and Health Through Design," 212-241.
  - e. Weinstein, M., Gambatese, J., and Hecker, S., "Outcomes of a Design-for-Safety Process: A Case Study of a Large Capital Project," 242-263.
  - f. Hecker, S., Gambatese, J., and Weinstein, M., "The Way Forward for Design for Construction Safety and Health: Industry Perspectives," 301-307.

- 50. Pocock, J.B., Kuennen, S.T., Gambatese, J.A., and East, W.W. (2004). "Constructability State of Practice Survey." *Proceedings of the Specialty Conference on Management and Leadership in Construction*, Hilton Head Island, SC, March 25-26, 2004. Reston, VA: Construction Institute's Construction Research Council, ASCE.
- Gambatese, J.A., Behm, M., and Hinze, J. (2003). "Engineering Mandates Stipulated in OSHA Regulations." *Proceedings of the 2003 Construction Research Congress*, Honolulu, HI, March 19-21, 2003. Reston, VA: ASCE.
- 52. Gambatese, J.A. and Dunston, P.S. (2003). "Designer Consideration of Project Lifecycle Performance." *Proceedings of the 2003 Construction Research Congress*, Honolulu, HI, March 19-21, 2003. Reston, VA: ASCE.
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- 54. Gambatese, J.A. (2000). "Owner Involvement in Construction Site Safety." *Proceedings of the American Society of Civil Engineers (ASCE) Construction Congress VI*, Orlando, FL, Feb. 20-22, 2000. Reston, VA: ASCE, 661-670.
- 55. Opfer, N.D. and Gambatese, J.A. (1999). "Temporary Construction Structures Coursework." Proceedings of the 35<sup>th</sup> Annual Conference of the Associated Schools of Construction (ASC), San Luis Obispo, CA, Apr. 7-10, 1999. Fort Collins, CO: ASC, 231-239.
- 56. Gambatese, J.A. and Hinze, J.W. (1997). "A Guide for Safety Inspections." Safety & Health on Construction Sites, International Council for Research and Innovation in Building and Construction (CIB) Working Commission 99, Pub. #209. Rotterdam, The Netherlands: CIB, 42-52. (Publication #209 contains selected papers from the Proceedings of the First International Conference of CIB. Working Commission 99: International Conference on Implementation of Safety and Health on Construction Sites, Lisbon, Portugal, Sept. 4-7, 1996.)
- 57. Hinze, J.W. and Gambatese, J.A. (1996). "Design Decisions that Impact Construction Worker Safety." Safety & Health on Construction Sites: International State of the Art Reports, International Council for Research and Innovation in Building and Construction (CIB) Working Commission 99, Pub. #187. Rotterdam, The Netherlands: CIB, 219-231. (Publication #187 contains selected papers from the Proceedings of the International Symposium for the Organization and Management of Construction: Shaping Theory and Practice, Vol. Two, CIB Working Commission 65, Organisation & Management of Construction Symposium, Glasgow, Scotland, U.K., Aug. 28-Sept. 3, 1996.)

# **OTHER PEER-REVIEWED PUBLICATIONS**

- 1. In *Constructability Concepts and Practice*, Gambatese, J.A., Pocock, J.B., and Dunston, P.S., Editors (2007), ASCE, Construction Institute, Reston, VA (book composed of selected research-based, peer-reviewed papers):
  - a. Gambatese, J.A., "Foreword and Acknowledgments."
  - b. Gambatese, J.A., Dunston, P.S., and Pocock, J.B., "Introduction."
  - c. Gambatese, J.A. and Dunston, P.S., "Constructability as a Lifecycle Property."
  - d. Dunston, P.S., Gambatese, J.A., and McManus, J.F., "A Cost and Benefit Model for Constructability Review Implementation."
  - e. Gambatese, J.A., Dunston, P.S., and Pocock, J.B., "The Way Forward: Recommendations for Future Constructability Research and Practice."

# CONFERENCE PROCEEDINGS (NON-PEER-REVIEWED)

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# **Other Publications:**

 Gambatese, J., Arnold, K., Crew, W., Gibson, G.E., and Loose, M. (2023). Proceedings of the Symposia Series: "Introducing and Embedding Safety Culture Concepts in Undergraduate Education." National Academy of Construction (NAC), 67 pgs., Aug. 2023, DOI: 10.13140/RG.2.2.22000.44804.

- Gambatese, J., Arnold, K., Crew, W., Gibson, G.E., and Loose, M. (2023). NAC Safety Culture Symposia Recap. "National Academy of Construction (NAC), 6 pgs., March 2023, DOI: 10.13140/RG.2.2.15122.22722.
- Gambatese, J. (2021). "Teaching Module: Prevention through Design (PtD) as a Component of Social Sustainability," March 2021, <u>http://web.engr.oregonstate.edu/~gambatej/PtD\_teaching\_module.pdf</u>.
- Gambatese, J. (2019). "Prevention through Design (PtD) in the Project Delivery Process: A PtD Sourcebook for Construction Site Safety," Aug. 2019.
- Lee, H.W., Gambatese, J., Kim, Y.W., Fardhosseini, M.S., Stuart, J., and Reigelsperger, C. (2019). "Lean and Safety Manual for Electrical Construction." State of Washington, Department of Labor and Industries, Safety and Health Investment Projects (SHIP) Grant Program, June 2019, <u>http://www.lni.wa.gov/safety-health/grants-committees-partnerships/safety-healthinvestment-projects-grant-program/ship-grants-2017zh00349</u>.
- Rajendran, S., Vahed, A., Gambatese, J., and Zak, D. (2019). "Safe and Innovative Work Best Practices for Mechanical Crafts Booklet." State of Washington, Department of Labor and Industries, Safety and Health Investment Projects (SHIP) Grant Program, Grant No. 2016ZH00312, Feb. 2019, <u>http://www.cwu.edu/engineering/new-best-pratices-bookletpublished</u>.
- 7. Karakhan, A. and Gambatese, J. (2018). "Creating a Risk Mitigation Plan: Understanding Hazard and Risk in Construction and the Impact of Behavioral Approaches on Safety." *CI Field Report*, ASCE, Sept. 5, 2018.
- (Contributing author) "Technical Report: Prevention through Design A Life Cycle Approach to Safety and Health in the Construction Industry," ASSP TR-A10.100-2018. American Society of Safety Professionals (ASSP), Park Ridge, IL, June 2018.
- Gambatese, J.A. and Liu, D. (2018). "Goal One: A Safe Return Each and Every Day; Safety Guidelines for Transportation Researchers Manual." Oregon Department of Transportation (ODOT) and Federal Highway Administration (FHWA), SPR 304-731, Jan. 2018, <u>http://www.oregon.gov/ODOT/Programs/ResearchDocuments/304-731\_Goal\_One.pdf</u>.
- 10. "SliDeRulE: A New Website to Assess Safety Risk in Design." The OH&S Blog, OHS Online, http://ohsonline.com/blogs/the-ohs-wire/2013/09/sliderule.aspx, Sept. 20, 2013.
- "Sustainable Design & Construction: Incorporating Worker Safety," interview of Rajendran, S. and Gambatese, J. *Professional Safety*, Journal of the American Society of Safety Engineers (ASSE), 56(2), 41-42, Feb. 2011.
- Behm, M., Lentz, T.J., Heidel, D., and Gambatese, J.A. (2011). "Prevention through Design and Green Buildings: A US Perspective on Collaboration." *Blueprints*, American Society of Safety Engineers (ASSE), 10(2), 28-34. Reprint of paper presented at International Council for Research and Innovation in Building and Construction (CIB) W99 Conference, Melbourne, Australia, Oct. 21-23, 2009.
- Gambatese, J. (2009). "Don't Leave Safety Out of Sustainability." Engineering News-Record, McGraw-Hill, New York, NY, Nov. 18, 2009, <u>http://enr.construction.com/opinions/viewpoint/2009/1118-SafetyOutofSustainability.asp</u>.
- Gambatese, J.A. and Dettwyler, K. (2002). "Oregon Public Contracting Coalition Guide to CM/GC Contracting." Associated General Contractors (AGC) Oregon Columbia Chapter, Wilsonville, OR, <u>http://www.agc-oregon.org/wp-</u> <u>content/uploads/2011/10/CM\_GC\_Guide\_05.pdf</u>, Feb. 2002.
- 15. Gambatese, J.A. (2000). "Safety in a Designer's Hands." Civil Engineering, ASCE, 70(6), 56-59.

- 16. Gambatese, J.A. (1999). "Getting to Zero Accidents." *Construction Connection*, Associated General Contractors (AGC), Las Vegas Chapter, 13(8), 29.
- 17. Gambatese, J.A. (1998). "Construction Education at UNLV." *Nevada Construction and Mining*, Nevada Contractors Association, 4(3), 7.
- 18. Gambatese, J.A. (1998). "What's New in Safety?" *Nevada Construction and Mining*, Nevada Contractors Association, 4(1), 7-8.
- 19. Gambatese, J.A. (1998). "Using Computers for Scheduling Construction Projects." *Nevada Construction and Mining*, Nevada Contractors Association, 3(11), 7 and 27.

# Websites:

- 1. "SliDeRulE," Safety in Design Risk Evaluator, http://www.constructionsliderule.org/.
- 2. "Sustainable Construction Safety and Health (SCSH) Rating System," http://sustainablesafetyandhealth.org/.

# PROFESSIONAL PRESENTATIONS

# **Invited Presentations:**

# International:

- "Systems Model of Building Construction for Upstream Risk Assessment and Mitigation." Invited presentation at Systems Thinking in Workplace Safety and Health in Construction: Theory Meets Practice, 1<sup>st</sup> International Workshop, hosted by Huazhong University of Science and Technology (HUST), Wuhan, China, Dec. 4-5, 2014.
- "Owner's Design Requirements for Safety." Invited presentation at *Tsinghua-CURT Conference for Improving Site Safety through Owner's Leadership*, hosted by CURT International Committee Forum and Tsinghua-Gammon Construction Safety Research Center, Tsinghua University, Beijing, China, Dec. 11-12, 2014.
- 3. "History of Safety and Design for Safety in Construction." Seminar presentation to faculty and students in Tsinghua-Gammon Construction Safety Research Center, Tsinghua University, Beijing, China, Dec. 9, 2014.
- "Engineering for Construction Safety: A Collaborative Approach to Safety." ExxonMobil Project Engineer's Safety Meeting, St. John's, Newfoundland and Labrador, Canada, Nov. 26, 2012.
- "Prevention through Design Concept and Practice." Cátedra de Prevención y Responsabilidad Social Corporativa, University of Málaga, Málaga, Spain, Oct. 10, 2011; and Departamento de Construcciones Arquitectónicas, University of Granada, Granada, Spain, Oct. 13, 2011.
- 6. "Prevention through Design (PtD): Research and Practice in the U.K. and U.S." Department of Civil and Building Engineering, Loughborough University, Loughborough, Leicestershire, England, Jan. 26, 2011.
- Keynote presentation: "Designing for Construction Safety and Health: From Research to Practice." Working Together: Planning, Designing, and Building a Healthy and Safe Construction Industry, International Council for Research and Innovation in Building and Construction (CIB) W99 Conference, Melbourne, Australia, Oct. 21-23, 2009.

## Domestic:

- 1. "Constructability Concepts and Practice: A Focus on Prevention through Design." *Concrete Executive Leadership Forum*, American Society of Concrete Contractors (ASCC), Beaver Creek, CO, July 20-23, 2023.
- 2. "Roadway Work Zone Research Update." Oregon Infrastructure Construction Safety Symposium, sponsored by AGC, APAO, ODOT, and OTA, Salem, OR, Mar. 1, 2023.
- 3. "Including Safety Culture Concepts in Existing Academic Programs." Panel presentation, Introducing and Embedding Safety Culture Concepts in Undergraduate Education Safety Symposium, National Academy of Construction (NAC), Boulder, CO, Feb. 9, 2023.
- "The Safety Challenge Construction Industry." Co-presenter with Steve Murphy / Boeing. Rutgers University, Center for Advanced Infrastructure and Transportation (CAIT) webinar, Feb. 2, 2023.
- 5. "Building Safety Partnerships in Roadside Work Zones." Work zone intrusion workshop (online), sponsored by the University of Memphis, Dec. 8, 2022.
- 6. "Including Safety Culture Concepts in Existing and Future Course Structures." Panel presentation at "Introducing and Embedding Safety Culture concepts in Undergraduate Education" symposium sponsored by the National Academy of Construction (NAC). New Jersey Institute of Technology (NJIT), Nov. 30, 2022.
- "Design of Solar Energy Systems to Prevent Injuries." Co-presenter with Hyun Woo (Chris) Lee / University of Washington. Human Factors and Ergonomics Society (HFES) Sustainability Webinar, Nov. 2, 2022.
- "Work Zone Safety: Controlling Speed and Mitigating Intrusions in Work Zones." NDSU/Upper Great Plains Transportation Institute, Transportation Learning Network (TLN) webinar, Nov. 2, 2022.
- 9. "Using Prevention through Design (PtD) to Create a Safer Construction Industry." Center for Innovation webinar, Aug. 19, 2022.
- "Planning for Safe Maintenance: Applying Prevention through Design (PtD) Beyond the Construction Phase" Co-presenter with Nicholas Tymvios / Bucknell University. Global Safety Leadership Team (GSLT) Meeting, Brookfield Properties, May 25, 2022 (online).
- 11. "Identification and Assessment of Musculoskeletal Disorders (MSDs) Risk for Concrete Formwork Systems." Co-presenter with Ziyu Jin / University of New Mexico. *Small Study Program Webinar*, Center for Construction Research and Training (CPWR), Sept. 29, 2021.
- "Introduction to Project: Integrating Hazard Recognition into Safety by Design." Copresenter with Eric Bauman / Electric Power Research Institute and Douglas Pontsler / Center of Visual Expertise. 2021 Advisory Committee Meetings, EPRI Program 62 – Occupational Health and Safety, Sept. 13, 2021 (online).
- 13. "The Safety Challenge Construction Industry." Co-presenter with Steve Murphy / Boeing Company (retired). ASCE India Section, Western Region webinar, May 18, 2021.
- 14. "Prevention through Design." Panel presentation with: Scott Earnest / NIOSH, Daniel Lavoie / Liberty Mutual, Jason Timmerman / Allegheny County Airport Authority, and Brian Hanlon / Citizen's Bank. National Safety Council (NSC) webinar, March 18, 2021.
- 15. "Prevention through Design (PtD): A Comprehensive and Collaborative Approach to Addressing Safety and Health." Panel presentation with John McKenzie / JE Dunn Construction and David Stanton / Port of Portland. Oregon State University (OSU) Construction Industry Forum, Feb. 11, 2021 (online).

- 16. "Reducing Intrusions into Utility Work Zones along Public Roadways." Co-presenter with Eric Bauman / EPRI, Chukwuma Nnaji / UA, and Eric Perry / ATSSA. Electric Power Research Institute (EPRI) P62 Special Webcast, Oct. 7, 2020.
- 17. "Prevention through Design Workshop." Co-presenter with Jason Timmerman, Rick Lee, and Erik Harless / Allegheny County Airport Authority (ACAA), Sept. 18, 2020 (online).
- 18. "Prevention through Design and Project Planning." Virtual Monthly Meeting, Portland Construction Safety Summit (CSS), Aug. 25, 2020.
- "Examples of Recent and Ongoing Research." Presentation in "TRB Webinar: Enhance Work Zone Safety with New Technologies," Transportation Research Board (TRB) webinar, July 9, 2020.
- 20. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska USA online PtD workshop, April 9, 2020.
- 21. Keynote presentation: "PtD Research: Why Implement Prevention through Design?" *Prevention through Design (PtD) Workshop*, sponsored by Arizona State University (ASU) and the National Institute for Occupational Safety and Health (NIOSH), Tempe, AZ, March 11, 2020.
- 22. "Enhancing Technology Integration in the Construction Industry: A Focus on Safety Technologies," *Mortenson 2020 Getting Better Together Workshop*, Mortenson Construction Co., Portland, OR, Jan. 30, 2020.
- 23. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska USA EHS Leadership VP Meeting, Longview, TX, Dec. 3, 2019.
- "Mistakeproofing and Prevention through Design (PtD)." Co-presenter with Dr. Iris Tommelein / UC Berkeley at *Cal Construction Innovation Day*, UC Berkeley, Berkeley, CA, Nov. 1, 2019.
- 25. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska Project Team PtD Workshop, Cincinnati, OH, Oct. 17, 2019.
- 26. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska Project Team PtD Workshop, Seattle, WA, July 25, 2019.
- "Integrating Safety, Schedule, and BIM to Minimize Schedule-Induced Safety Risk," 2019 Construction Safety, Health & Environmental Conference, Associated General Contractors (AGC), Seattle, WA, July 23-25, 2019.
- 28. "Design for Safety (DfS) in Construction." Presentation to Samsung Electronics Co. and Jacobs Engineering, Portland, OR, April 16, 2019.
- 29. "Prevention through Design (PtD) in Construction." EMD Serono, Inc. workshop, *Prevention through Design and Construction Leadership in Safety and Health: An Executive Approach*, Boston, MA, April 3, 2019.
- 30. "Prevention through Design (PtD) in Construction." *Oregon Governor's Occupational Safety* & *Health Conference*, Portland, OR, March 4-7, 2019.
- 31. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska Project Team PtD Workshop, Arlington, VA, Feb. 27, 2019.

- 32. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska Project Team PtD Workshop, Boston, MA, Dec. 13, 2018.
- 33. "Target Zero Injuries: Developing a Comprehensive Safety Program for Engineers and Constructors." Co-presenter with Wayne Crew, General Secretary of the National Academy of Construction. ASCE webinar, Dec. 4, 2018.
- 34. "Safety and the Civil Engineer: Addressing Safety during Design." Panel presentation at ASCE Industry Leaders Council (ILC) Fall 2018 Meeting, Washington, DC, Nov. 8, 2018.
- 35. "Prevention through Design (PtD) Concept, Practice, and Implementation." Co-presenter with Jason Timmerman / EHS Director for Skanska USA Commercial Development, Skanska Project Team PtD Workshop, Houston, TX, Nov. 1, 2018.
- 36. "Current Issues and Research in Work Zone Safety." Washington Asphalt Pavement Association (WAPA) and Washington State Department of Transportation (WSDOT) Joint Committee on Paving Work Zone Risk Reduction meeting, Fife, WA, Oct. 18, 2018.
- 37. "Precursor Analysis for Preventing Low-Frequency, High Impact Events." Panel presentation with Greg Driscoll/American Contractors Insurance Group, Mark Mumford/Cajun Industries, and Eric Lambert/Zurich. 99<sup>th</sup> Annual AGC Convention, Associated General Contractors (AGC), New Orleans, LA, Feb. 26-28, 2018.
- "Designing for Safety in Construction and throughout the Facility Lifecycle." *Lean Design Forum 2018*, sponsored by the Project Production Systems Laboratory (P<sup>2</sup>SL), Lean Construction Institute (LCI), and American Institute of Architects (AIA), Berkeley, CA, Feb. 8-9, 2018.
- 39. "Occupational Health and Safety in the Design and Construction of Projects." 43<sup>rd</sup> Annual Meeting, American Industrial Hygiene Association (AIHA), Yuma Pacific Southwest Section, San Diego, CA, January 19, 2018.
- 40. "Reducing Highway Worker Exposure and Maximizing Return on Investment for Worker Safety Strategies." Co-presenter with Keith Robinson/Caltrans, David Hurwitz/OSU, and Zachary Barlow/OSU. Workshop #161, 97<sup>th</sup> Annual Meeting, Transportation Research Board (TRB), Washington, DC, Jan. 7, 2018.
- 41. "Work Zone Intrusion Alert Technologies: Assessment and Practical Guidelines." Presentation to Subcommittee on Vehicle Intrusion Mitigation in Work Zones, 97<sup>th</sup> Annual Meeting, Transportation Research Board (TRB), Washington, DC, Jan. 8, 2018.
- 42. "Solar PtD Webinar: Application of Prevention through Design to Improve Safety in Solar Installations for Small Buildings," co-presenter with Hyun Woo (Chris) Lee/UW, sponsored by the Center for Construction Research and Training (CPWR), Dec. 13, 2017, <u>http://www.youtube.com/watch?v=nRuyKf1w2yk&feature=youtu.be</u>.
- 43. "Construction Work Zone Safety," 48<sup>th</sup> Annual Meeting, Asphalt Pavement Association of Oregon (APAO), Portland, OR, Dec. 7, 2017.
- 44. "Opportunities for Enhancing Work Zone Safety," co-presenter with David Hurwitz/OSU, Oregon Work Zone Executive Strategy Session, Salem, OR, Dec. 6, 2017.
- 45. "Precursor Analysis of Fatal and Near-Fatal Events," co-presenter with Matthew Hallowell/University of Colorado at Boulder. NORA Traumatic Injury Prevention/Construction Joint Council Meeting (webinar), National Institute for Occupational Safety and Health (NIOSH), Nov. 13, 2017.
- 46. "TRB Straight to Recording for All: Transportation Worker Safety Program Resources and Practices," webinar presentation with David Hurwitz/OSU and Keith Robinson/Caltrans.

Transportation Research Board (TRB), Sept. 2017, <u>http://www.trb.org/main/blurbs/176680.aspx</u>.

- 47. "Prevention through Design (PtD)." Presentations to Webcor Builders, UCSF Block 33 Project, San Francisco, CA, Sept. 15, 2017.
- 48. "Prevention through Design (PtD) in Construction: From Research to Practice." Webinar presentation sponsored by the American Society of Safety Engineers (ASSE) Young Professional Leadership Team, July 26, 2017, <u>http://learn.asse.org/cig-education-youngprofessionals</u>.
- 49. "Construction Work Zone Safety." Oregon Work Zone Executive Strategy Session #8, Oregon Work Zone Executive Strategy Task Force, Salem, OR, June 21, 2017.
- 50. "Using Precursor Analysis to Prevent Low-Frequency, High-Impact Events, Including Fatalities." Safety Excellence Meeting, Northwest Construction Consumer Council (NWCCC), Lynnwood, WA, June 15, 2017.
- 51. "Construction Safety Research: Precursor Analysis and More," National Construction Safety Executives (NCSE) meeting, Corpus Christi, TX, April 12, 2017.
- 52. "Precursor Analysis of Fatal and Near-Fatal Events." Co-presenter with Gregg Slintak / ConEdison and Matthew Hallowell / University of Colorado at Boulder. ConEdison, Inc., New York, NY, Jan. 6, 2017.
- 53. "Precursor Analysis of Fatal and Near-Fatal Events." Co-presenter with Gregg Slintak / ConEdison. ConEdison, Inc., New York, NY, Dec. 15, 2016.
- 54. "Precursor Analysis of Fatal and near-Fatal Events." Co-presenter with Matthew Hallowell / University of Colorado at Boulder. National Academy of Construction (NAC) Annual Meeting, Napa, CA, Oct. 22, 2016.
- 55. "Prevention through Design (PtD) in Construction: Improving Safety in Our Built Environment." Auburn University Facilities Management, Auburn University, Auburn, AL, Sept. 14, 2016.
- 56. "Innovations and Research on Work Zone Safety." 2016 Oregon Association of County Engineers & Surveyors (OACES) Spring Conference, Hood River, OR, May 9-11, 2016.
- 57. "Prevention through Design (PtD): Engineering a Safer Project." 2016 Professional Engineers of Oregon (PEO) Annual Conference, Eugene, OR, May 5-6, 2016.
- 58. "Prevention through Design (PtD) Concept and Current Practice." Port of Portland, Portland, OR, Feb. 24, 2016.
- 59. "What's New in Safety Research for Construction Work Zones?" 22<sup>nd</sup> Annual Asphalt Conference, Asphalt Pavement Association of Oregon (APAO), Eugene, OR, Feb. 23, 2016.
- 60. "Radar Speed Display for Mobile Maintenance Operations: Impacts, Applications, and Use." ODOT Maintenance Leadership Team (MLT) meeting, Salem, OR, Feb. 11, 2016.
- 61. "Prevention through Design (PtD): Moving Construction Safety Upstream." Construction Users Roundtable (CURT) National Conference, Orlando, FL, Feb. 8-10, 2016.
- 62. "Quality and Safety: What does research tell us?" Panelist presentation in "Construction Quality and Safety: Reducing Rework While Achieving Zero Incidents and Accidents" online webinar sponsored by Engineering News-Record and Procore, Feb. 27, 2016.
- 63. Keynote presentation: "Work Zone Safety Research: Striving for Zero Incidents." ODOT Project Managers Annual Meeting, Salem, OR, Jan. 20, 2016.
- 64. Eminent Scholar Program, School of Sustainable Engineering and the Built Environment, Arizona State University:
  - a. "Safety in Construction: Past and Present," Nov. 3, 2015

- b. "Exploring Safety in Construction," Nov. 4, 2015
- 65. "Work Zone Safety Research and New Safety Lab at OSU." Fall Meeting of the Northwest Chapter of the American Traffic Safety Services Association (ATSSA), Salem, OR, Sept. 23, 2015.
- 66. "Prevention through Design (PtD): Eliminating Safety Hazards through the Design." Presentation to SNC-Lavalin, Bothell, WA, Aug. 25, 2015.
- 67. "Safety Research at OSU." OSU Construction Education Foundation (CEF) Summer Meeting, Portland, OR, July 30, 2015.
- "Prevention through Design (PtD)." Guest lecture (on-line) in SAFT 6282 Design for Safety and the Environment class, Department of Technology Systems, East Carolina University, June 3, 2015.
- 69. "Construction Engineering: Designing Formwork and Concrete Structures for Safety." 2015 CERC Conference, *New Frontiers*, Center for Education and Research in Construction (CERC), University of Washington, Seattle, WA, March 6, 2015.
- 70. "Safety in the Construction Industry." National Academies Keck Futures Initiative (NAKFI) Forum, titled "Enhancing Safety while Fostering Innovation: Can the Nuclear Industry Learn from Other Industries?" Sponsored by the School of Nuclear Engineering and Radiation Health Physics (NEHRP), Oregon State University, Corvallis, OR, Feb. 23, 2015.
- 71. "Construction Engineering and Engineering for Construction: The Case of Designing Reinforced Concrete and Concrete Formwork for Safety." Seminar presentation to faculty and students in Department of Civil and Environmental Engineering, University of Colorado at Boulder, Boulder, CO, Nov. 20, 2014.
- 72. "From Research to Practice: A Collaborative Approach to Prevention through Design." 20<sup>th</sup> Annual Willis Construction Risk Management Conference, Willis Construction, Plano, TX, Sept. 16-17, 2014.
- 73. "From Research to Practice: A Collaborative Approach to Construction Safety." Associated General Contractors (AGC) of America, Safety and Health Committee Meeting, Portland, OR, July 16-18, 2014.
- 74. "Prevention through Design (PtD): Moving Construction Safety Upstream." Port of Portland, Portland, OR, June 24, 2014.
- 75. "Putting Safety Research into Practice." MDU Construction Services, Safety Director's Meeting, Las Vegas, NV, Dec. 16, 2013.
- 76. "Design Safety Risk of Multi-story Commercial Office Buildings." *Using BIM to Eliminate Construction Site Hazards Workshop*, sponsored by AGC of America, NIOSH, CPWR, and BIMForum, Arlington, VA, Aug. 6-7, 2013.
- 77. "Graduate School in Civil Engineering: What It's All About and Is It Right for You." Bucknell University, Department of Civil and Environmental Engineering, Oct. 17, 2012.
- 78. "Prevention through Design (PtD) Education and Research." National Construction Safety Executives (NCSE) Fall Meeting, Napa, CA, Oct. 3, 2012.
- 79. "Design for Construction Safety in the U.S." Harvard University School of Public Health professional development education class *Safety in Design and Construction: A Lifecycle Approach*, Boston, MA, Apr. 23-26, 2012.
- 80. "Prevention through Design (PtD) in Construction: Concept and Current Practice." National Electrical Contractors Association (NECA) Safety Webinar, March 9, 2012.
- 81. Keynote presentation: "A Look at PtD based on Foundational Attributes of Construction Projects." *Prevention: Means to the End of Construction Injuries, Illnesses, and Fatalities,*

International Council for Research and Innovation in Building and Construction (CIB) W99 Conference, Washington, DC, Aug. 24-26, 2011.

- 82. In *AIHce 2011* conference, sponsored by the American Industrial Hygiene Association (AIHA) and the American Conference of Governmental Industrial Hygienists (ACGIH), Portland, OR, May 14-19, 2011:
  - a. "Integrating Safety and Sustainability: Current Research and Practice"
  - b. "Prevention through Design (PtD): Concepts and Practice in the Construction Industry"
- 83. "Engineering for Construction Safety (EfS)." Co-presenter with Michael Toole, Bucknell University. *Marine Well Containment System (MWCS) Contractor Leadership in Safety Workshop*, sponsored by ExxonMobil, Houston, TX, April 26-27, 2011.
- 84. "Safety in Design: Practical Application Using BIM and Other Technologies." *Oregon Governor's Occupational Safety and Health Conference*, Portland, OR, March 7-10, 2011.
- 85. "Design for Construction Safety." ExxonMobil Development: Civil, Structural, and Arctic Engineering Group, Houston, TX, April 9, 2010. Co-presenter with Michael Toole, Bucknell University.
- 86. "Design for Construction Safety in the U.S." Harvard University School of Public Health professional development education class *Safety in Design and Construction: A Lifecycle Approach*, Boston, MA, Feb. 22-26, 2010, co-instructor with Michael Toole, Bucknell University.
- 87. "Designing for Construction Safety: Concepts and Practice." *Washington Governor's Industrial Safety and Health Conference*, Tacoma, WA, Oct. 7-8, 2009.
- 88. "Designing for Construction Safety: Concepts and Practice." Department of Energy (DOE) Integrated Safety Management Conference, Knoxville, TN, Aug. 24-27, 2009.
- 89. "Collaborative Construction Planning: A Convergence of Sustainability, Lean Construction, and Safety in Design." *Oregon Governor's Occupational Safety and Health Conference*, Portland, OR, March 9-12, 2009.
- 90. In Harvard University School of Public Health professional development education class *Safety in Design and Construction: A Lifecycle Approach*, Boston, MA, Feb. 23-27, 2009, co-instructor with Michael Toole, Bucknell University:
  - a. "Design for Construction Safety: Concept and Research"
  - b. "Design for Construction Safety in Practice"
- 91. In 2007 Design-Build Institute of America (DBIA) Annual Conference and Expo, Dallas, TX, Oct. 31-Nov. 2, 2007:
  - a. Opening keynote presentation: "Energizing Innovation in Integrated Project Delivery: Putting Research into Practice"
  - b. Panel presentation: "Innovating The Design-Build Team's Competitive Edge"
  - c. Special session presentation: "Owner's Role in Innovation"
- 92. "Prevention through Design." Engineers Joint Contract Documents Committee (EJCDC) meeting, Atlanta, GA, Oct. 12, 2007.
- 93. "Design for Construction Safety: Moving Safety Decisions Upstream." Parsons Corporation, Corporate Safety Managers Meeting, Miami, FL, April 25, 2006.
- 94. "Design for Construction Safety: Moving Safety Decisions Upstream." Winter 2006 Corporate Partners Program, Department of Public Health, Oregon State University, Corvallis, OR, March 17, 2006.

- 95. "Incentives to Get Safety into the Engineering Curriculum." 6<sup>th</sup> Annual Hazard Information Foundation, Inc. (HIFI) Safety Workshop, Sierra Vista, AZ, Feb. 23-24, 2006.
- 96. "Constructability State of Practice, Benefits, and Barriers." ASCE Capital Branch meeting, Salem, OR, April 28, 2005.
- 97. "Designing for Construction: Achieving Project Success through Constructability." ASCE Oregon Section, Host-A-Student Dinner, Corvallis, OR, Nov. 21, 2002.
- 98. Panel presentation: "The Next Industrial Revolution: Improving Urban Place and the Working Ecology through Sustainable Design and Development." 130<sup>th</sup> Annual Meeting and Exposition of the American Public Health Association (APHA), Philadelphia, PA, Nov. 9-13, 2002.
- 99. "Managing Construction Safety from Project Concept to Completion." 10<sup>th</sup> Biennial Cascade Safety, Health & Environmental Conference, Eugene, OR, March 12-13, 2002. Sponsored by OR-OSHA and the Cascade Chapter of the American Society of Safety Engineers (ASSE).
- 100. "The Future of Construction Safety and Health: A Focus on Education and Research." Columbia-Willamette Chapter of the American Society of Safety Engineers (ASSE) monthly meeting, Portland, OR, Mar. 12, 2001.
- 101. "Construction Safety Management: From Project Conception to Completion." Oregon Governor's Occupational Safety & Health Conference, Portland, OR, Mar. 5-8, 2001.
- 102. "Construction Site Safety: Improving Safety through Effective Project Management." Lecture Series on Construction Project Management, Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, CA, Aug. 3, 2000.
- 103. "Designing for Safety." M.E. Rinker Sr. Lecture Series on Construction Health and Safety, University of Florida, Gainesville, FL, Sept. 21-22, 1998.
- 104. "Construction Safety: A Focus on Project Design." Northwest Construction Consumer Council (NWCCC), Seattle, WA, June 26, 1996.
- 105. "Designing for Construction Worker Safety: Consideration of Construction Worker Safety in the Design Phase." *Houston Business Roundtable Quarterly Forum*, Houston, TX, Nov. 14, 1995.

# **Non-Invited Presentations:**

#### International:

- "Ironworker Perspectives on Accident Causes and Improving Safety Planning." International Health and Safety Conference: Benefitting Workers and Society through Inherently Safe(r) Construction, CIB W099 – Safety and Health in Construction, Ulster University, Jordanstown Campus, Belfast, Northern Ireland, September 10-11, 2015.
- "Additional Evidence of the Sustainable Construction Safety and Health (SCSH) Rating System's Effectiveness." *International Conference on Achieving Sustainable Construction Health and Safety*, W099 – Safety and Health in Construction, International Council for Research and Innovation in Building and Construction (CIB), Lund, Sweden, June 2-3, 2014.
- 3. "Prevention through Design: Construction Safety." Panel Presentation, ASCE *142<sup>nd</sup> Annual Civil Engineering Conference*, Montreal, Quebec, Canada, Oct. 13-20, 2012.
- 4. "Designer and Contractor Perception of Project and Cost Impacts of Engineered Safety Solutions." *Proceedings of the CIB W099 International Conference on "Modeling and Building Health and Safety"*, Singapore, Sept. 10-11, 2012.

- "Industry's Perspective of Design for Safety Regulations." Working Together: Planning, Designing, and Building a Healthy and Safe Construction Industry, International Council for Research and Innovation in Building and Construction (CIB) W99 Conference, Melbourne, Australia, Oct. 21-23, 2009.
- 6. In 2007 Construction Research Congress, ASCE, Grand Bahama Island, Bahamas, May 6-8, 2007:
  - a. "Benchmark of Innovation in the Architecture/Engineering/Construction Industry."
  - b. "Sustainable Construction Safety and Health Rating System A Feasibility Study."

# Domestic:

- 1. "Development of a Cost Effective Proximity Warning System for Fall Protection." *International Conference on Computing in Civil Engineering*, ASCE, Corvallis, OR, June 25-28, 2023.
- "Evaluation of Task Characteristics Affecting Worker Mental Workload Using Mixed Methods." *Digital Transformation of Health and Safety in Construction*, CIB W099 & W123 Conference, Porto, Portugal, June 21-22, 2023.
- 3. "Safety Culture in Civil Engineering Academic Programs." *ASCE 2023 Education Summit*, Clemson University, Clemson, SC, April 3-5, 2023.
- 4. "Technologies to Prevent Serious Injuries and Fatalities Related to Last-minute Work Changes." Co-presenter with Michael Muggeo / Consolidated Edison of NY, Sean Bevan / Fluor Corp., and Chukwuma Nnaji / Texas A&M University. RT-382 Research Presentation, Construction Industry Institute (CII) Annual Conference, Cleveland, OH, Aug. 1-3, 2022.
- 5. "Using Visual Literacy to Improve Hazard Recognition in Electric Utility Designs." Copresenter with John Shober / EPRI, Doug Pontsler / COVE, and Chukwuma Nnaji / UA. Electric Power Research Institute (EPRI) webcast, May 20, 2022.
- 6. "Post-Pandemic Construction Engineering Education." Panel presentation, Construction Engineering Education Committee, ASCE CI Summit, Arlington, VA, March 9-12, 2022.
- 7. "CI Safety Presentation: *Putting Safety into Practice*." ASCE Tech Talks, ASCE Virtual 2021 Convention, Oct. 5 Nov. 16, 2021.
- 8. "Construction Safety Fundamentals and Practice." Co-presenter with Wayne Crew / National Academy of Construction. Online safety workshops, sponsored by American Society of Civil Engineers (ASCE):
  - a. Setting the Foundation for Project Safety, April 19 and 21, 2021
  - b. Safety Planning and Implementation, May 4 and 6, 2021
- "A Roadmap for Safety in Civil Engineering." Co-presenter with Steven Murphy / Boeing, David Kanagy / SMME, Kate McGee / Pennoni Associates, and Dan Lavoie / Liberty Mutual. Panel presentation at ASCE 2020 Virtual Convention, Oct. 30, 2020.
- 10. In ASCE CI Summit 2020, Los Angeles, CA, Feb. 20-22, 2020:
  - a. "Assessing Safety Risk: Integrating Safety, Schedule, and Design using Technology." Co-presenter with Chukwuma Nnaji / University of Alabama and Chad Morrison / Berlin Steel.
  - b. "The Importance of Construction Engineering Program Commentary." Panel presentation with: Susan Bogus Halter / University of New Mexico; Jennifer Shane / Iowa State University; Jim Rowings / Kiewit; and Craig Ruyle / New York State DOT.

- 11. "Engineer Involvement in Site Safety." Member of panel presentation titled "Target Zero Injuries: Engineering for Safety," at ASCE Annual Convention, Miami, FL, Oct. 11, 2019.
- Gambatese, J. (2019). "Precursor Analysis: Predicting the Potential for Serious Injury and Fatality Incidents." ASCE *Construction Institute Summit 2019*, Atlanta, GA, March 7-9, 2019.
- Gambatese, J. and Liu, D. (2019). "Student Worker Safety Guidelines in Roadside Applications and Work Zones." 98<sup>th</sup> Annual Meeting of the Transportation Research Board (TRB), Washington, D.C., Jan. 13-17, 2019. (Poster presentation)
- 14. "Predicting Safety Incidents using Precursor Analysis." AGC Oregon-Columbia Chapter Summer Convention, Sunriver, OR, Aug. 9-11, 2018.
- 15. In *Northwest Transportation Conference*, sponsored by ODOT, OSU, PSU, Benton County Public Works, FHWA, and ITE, Corvallis, OR, March 13-15, 2018:
  - a. "Student Education and Training for Safety in Roadway Engineering Field Work," Co-presenter with Ding Liu / OSU.
  - b. "Using Mobile Laser Scanner to Support Work Zone Reviews of Temporary Signage," Co-presenter with Ziyu Jin / OSU.
- 16. "Designing for Safety: Guidance from ASCE Policy Statement 350." ASCE Construction Institute (CI) Summit, Orlando, FL, Mar. 9-12, 2016.
- "Impact of Advisory Signs on Vehicle Speeds in Highway Nighttime Paving Project Work Zones." 95<sup>th</sup> Annual Meeting of the Transportation Research Board (TRB), Washington, D.C., Jan. 10-14, 2016. (Poster presentation)
- "Prevention through Design (PtD) Research and Practice in the U.S." *International Prevention through Design (PtD) Knowledge Exchange: NIOSH and JNIOSH*, National Institute for Occupational Safety and Health (NIOSH), New York City, NY, Oct. 14, 2014.
- "Work Zone Speed Reduction Research: Reducing Vehicle Speeds on Highway Preservation Projects." 20<sup>th</sup> Annual Oregon Asphalt Conference, Asphalt Pavement Association of Oregon (APAO), Eugene, OR, March 18, 2014.
- 20. "Implementation and Evaluation of Traffic Control Devices on Highway Nighttime Paving Projects." *93<sup>rd</sup> Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, Jan. 12-16, 2014.
- 21. "Design and Construction Impacts to TCP Quality, Consistency, and Safety." 93<sup>rd</sup> Annual Meeting of the Transportation Research Board (TRB), Washington, DC, Jan. 12-16, 2014. (Poster presentation)
- 22. "Mobile Protective Barrier System." *WASHTO 2012 Conference*, Colorado Springs, CO, July 8-11, 2012.
- 23. "Comparison of Design Risk Factors of Multistory Commercial Office Buildings." ASCE Construction Research Congress 2012, West Lafayette, IN, May 21-23, 2012.
- 24. "Mobile Work Zone Barrier Systems." *Northwest Transportation Conference: Transportation and the Economy*," Corvallis, OR, Feb. 7-9, 2012.
- 25. "Sustainable Construction Safety and Health Rating System." *Oregon OSHA Symposium*, sponsored by OR-OSHA, Keizer, OR, Oct. 26-27, 2011.
- 26. "Findings from the Overall PtD in UK Study and Their Application to the US." *Prevention through Design A New Way of Doing Business: Report on the National Initiative Workshop*, sponsored by the National Institute for Occupational Safety and Health (NIOSH), Washington, DC, Aug. 22-24, 2011.

- 27. "Prevention through Design (PtD) in Construction: Concept and Current Practice." *Ist Annual Safety Professionals Conference*, National Electrical Contractors Association (NECA), Dallas, TX, May 22-24, 2011.
- 28. "Comparison of Design and Construction Perspectives of Traffic Control Plan Quality, Consistency, and Safety." 2<sup>nd</sup> International Conference on Transportation Construction Management, Orlando, FL, Feb. 7-10, 2011.
- "NIOSH Prevention through Design (PtD) Initiative: Collecting FACE Program Data." NIOSH Fatality Assessment and Control Evaluation (FACE) Program Annual Meeting, Morgantown, WV, Oct. 19-20, 2010.
- 30. "Examples of Civil and Construction Engineering Sustainability Research." OSU Iraqi Faculty Visit, Corvallis, OR, Aug. 6, 2009.
- 31. "Prevention through Design Practice and Research: A Construction Industry Perspective." *Evolution of and Directions in Construction Safety and Health*, International Council for Research and Innovation in Building and Construction (CIB) W99 Working Commission Rinker International Conference, Gainesville, FL, March 9-11, 2008.
- 32. "The Future of Design for Construction Safety," co-presenter with Michael Toole, Bucknell University. 18<sup>th</sup> Annual Construction Safety Conference, sponsored by the Construction Safety Council and The Center to Protect Workers' Rights, Rosemont, IL, Feb. 12-14, 2008.
- 33. "Designing for Construction Safety: Preventing Injuries from Concept to Completion." National Safety Council (NSC) webinar, Nov. 27, 2007.
- 34. "Energizing Innovation in Integrated Project Delivery." US Army Corps of Engineers 2007 Northwestern Division Construction Phase Project Delivery Team Conference, Corvallis, OR, May 1-3, 2007.
- 35. "Energizing Innovation in Integrated Project Delivery: Preliminary Findings and Future Directions." 2006 Design-Build Institute of America (DBIA) Conference and Expo, Nashville, TN, Oct. 18-20, 2006.
- 36. In ASSE Professional Development Conference, Seattle, WA, June 11-14, 2006:
  - a. "Building toward Sustainable Safety and Health."
  - b. "Designing for Construction Worker Safety."
- 37. "Sustainable Roadway Construction: Energy Consumption and Material Waste Generation of Roadways." *Construction Research Congress 2005*, ASCE, San Diego, CA, April 5-7, 2005.
- 38. "Training Students for Design Safety in Construction." ASSE Professional Development Conference & Exposition, Las Vegas, NV, June 7-10, 2004.
- "Project Delivery Methods & Safety in Design," co-presenter with Greg Baker, OSU. Joint Meeting of AACE – Cascade Section and ASCE – Oregon Section, Portland, OR, May 18, 2004.
- 40. "Engineers' Role in Designing for Safety." ASCE Annual Conference and Exposition, Nashville, TN, Nov. 12-14, 2003.
- 41. In Designing for Safety and Health in Construction Symposium, Portland, OR, Sept. 15-16, 2003. Sponsored by: University of Oregon; Center to Protect Workers' Rights; National Institute for Occupational Safety and Health; Oregon State University; and Industrial Design and Construction:
  - a. "Pilot Study of the Viability of Designing for Construction Worker Safety."
  - b. "Design for Safety/Health Tools and Technologies."
  - c. "Safety Emphasis in University Engineering and Construction Program Curricula in the U.S."

- 42. "Construction Safety Research." *Mega Projects of the West Coast II Safety Seminar*, sponsored by ASCE Construction Institute, Berkeley, CA, Aug. 21, 2003.
- 43. In 2003 Construction Research Congress, sponsored by ASCE, Honolulu, HI, March 19-21, 2003:
  - a. "Engineering Mandates Stipulated in OSHA Regulations."
  - b. "Designer Consideration of Project Lifecycle Performance."
- 44. "Controlling Hazardous Noise on Construction Jobsites." Oregon Governor's Occupational Safety & Health Conference, Portland, OR, March 3-6, 2003.
- 45. "Constructor Involvement in Safety in Design." *13th Annual Construction Safety Conference & Exposition*, Chicago, IL, Feb. 11-13, 2003. Sponsored by the Construction Safety Council.
- 46. "Benefit-Cost Model for Highway Department Constructibility Reviews." 82<sup>nd</sup> Annual *Meeting of the Transportation Research Board (TRB)*, Washington, DC, Jan. 12-16, 2003.
- 47. "Life Cycle Analysis: Concrete and Asphalt in Paving." *Sustainable Construction Practices: Concrete and Asphalt Conference*, Portland, OR, Dec. 3-4, 2002. Sponsored by the Oregon State University College of Engineering.
- 48. "Automation Consideration during Project Design." *International Symposium on Automation and Robotics in Construction* (ISARC), Washington, DC, Sept. 23-25, 2002.
- "Life Cycle Safety: A Partnership for Improving Safety through Design." 12<sup>th</sup> Annual Construction Safety & Health Conference, sponsored by the Construction Safety Council (CSC) and Center to Protect Workers' Rights (CPWR), Chicago, IL, May 21-23, 2002.
- 50. "Construction Engineering Management at Ground Zero." *OSU Over Lunch*, Portland, OR, Nov. 15, 2001.
- 51. "Safety in Design Research." At the Leading Edge: Moving Ahead in Construction Safety Management Conference, sponsored by the Labor Education and Research Center (LERC), University of Oregon, Portland, OR, May 31, 2001.
- 52. In 11<sup>th</sup> Annual Construction Safety Conference, Construction Safety Council, Chicago, IL, Feb. 6-8, 2001:
  - a. "Owner & Designer Roles in Safety."
  - b. "Getting to Zero Accidents."
- 53. In American Society of Civil Engineers (ASCE) Construction Congress VI, Orlando, FL, Feb. 20-22, 2000:
  - a. "Safety Constructability: Designer Involvement in Construction Site Safety."
  - b. "Owner Involvement in Construction Site Safety."
- 54. In 10<sup>th</sup> Annual Construction Safety Conference, Construction Safety Council, Chicago, IL, Feb. 15-17, 2000:
  - a. "Owner and Designer Roles in Site Safety."
  - b. "Safety Toolbox for Designers."
- 55. "Using a Water Spray System on Trucks to Suppress Dust." *Air Quality Issues Associated with Waste Management Conference*, Air & Waste Management Association, Las Vegas, NV, Sept. 15-17, 1999.
- 56. "Application of Risk Mapping to Construction Project Jobsites." 2<sup>nd</sup> International Conference on Implementation of Safety and Health on Construction Sites, International Council for Research and Innovation in Building and Construction (CIB) Working Commission 99, Honolulu, HI, Mar. 24-27, 1999.
- 57. "Application of Risk Mapping to Construction Project Jobsites." 2<sup>nd</sup> International Conference on Implementation of Safety and Health on Construction Sites, International

Council for Research and Innovation in Building and Construction (CIB) Working Commission 99, Honolulu, HI, Mar. 24-27, 1999.

- 58. "Developing and Providing Valuable Engineering Education Experiences." 1999 Annual Meeting and Conference of the American Society for Engineering Education (ASEE) Pacific Southwest Section, Las Vegas, NV, Mar. 19-20, 1999.
- "Owners, Architects, Design Engineers, Contractors: Who's Responsible for Safety?" 9<sup>th</sup> Annual Construction Safety Conference, Construction Safety Council, Chicago, IL, Feb. 10-12, 1999.
- 60. "Project Management." 1999 National Association of Store Fixture Manufacturers Project Management Seminar, Las Vegas, NV, Jan. 28-29, 1999.
- 61. "Energy Efficient Homes Using Passive Solar Strategies." *GlobeEx/Nevada Future Technical Innovations Roundtable*, Las Vegas, NV, Oct. 26, 1998. (Poster presentation)
- 62. "Energy Efficient Home Construction Issues." *Nevada Science and Technology Symposium*, Las Vegas, NV, Jan. 8-9, 1998. (Poster presentation)
- 63. In *National Occupational Injury Research Symposium*, National Institute for Occupational Safety and Health (NIOSH), Morgantown, WV, Oct. 15-17, 1997:
  - a. "A Designer's Influence on Construction Worker Safety."
  - b. "A Tool for Planning and Monitoring Construction Site Safety." (Poster presentation)
- 64. "Constructability: A Quality Improvement Approach to Transportation Projects." 76<sup>th</sup> Annual Meeting of the Transportation Research Board (TRB), Washington, DC, Jan. 12-16, 1997.
- 65. "A Framework for the Constructability Review of Transportation Projects." *Washington State Department of Transportation Statewide Project Planning, Engineering, and Construction Conferences*, Wenatchee, WA, Mar. 25-27,1996, and June 5, 1996.
- 66. "Design for Safety." *Construction Project Improvement Conference*, Construction Industry Institute (CII), Austin, TX, Sept. 11-13, 1995.
- 67. "Design for Safety." Construction Industry Institute (CII) Annual Conference, San Diego, CA, Aug. 1-3, 1995.

# OTHER WORKSHOP, MEETING, AND CONFERENCE ATTENDANCE

- 1. Ocean Renewable Energy Conference 2022 & UMERC + METS, Portland, OR, Sept. 13-15, 2022
- 2. CI & CRC Joint Conference 2022, ASCE, Arlington, VA, March 9-12, 2022.
- 3. Construction Research Congress 2018, ASCE, New Orleans, LA, April 2-4, 2018.
- 4. 2014 Construction Research Congress, ASCE, Atlanta, GA, May 19-21, 2014.
- 5. Oregon BEST Modular Construction Forum, Portland, OR, March 6, 2014.
- 6. 2014 Construction Engineering Conference: Leveraging Project and Career Success, Seattle, WA, March 27-29, 2014.
- 7. Construction Engineering Conference: Opportunity and Vision for Education, Practice, and Research. Virginia Tech University, Blacksburg, VA, Sept. 30-Oct. 2, 2010.
- 8. Construction Research Congress 2010: Innovation for Reshaping Construction Practice. ASCE Construction Institute, Banff, Alberta, Canada, May 8-10, 2010.
- 9. CPWR 2009 Trainer Enhancement Conference: Health & Safety in Green Construction. Center for Construction Research and Training, Portland, OR, Sept. 27-30, 2009.
- 10. 1st Annual Leadership Forum, ASCE Construction Institute, Chicago, IL, June 9-10, 2008.

- 11. Conversational Skills for Convening People and Influencing Decisions, Oregon State University, Corvallis, OR, May 1-2, 2008.
- 12. *Prevention through Design Workshop*, National Institute for Occupational Safety and Health (NIOSH), Washington, DC, July 9-11, 2007.
- 13. Journey into Leadership V, Oregon State University, Corvallis, OR, Dec. 2006-April 2007.
- 14. NexCon 2006 Next Generation Construction Summit: Defining the New Critical Path, Greater Portland Construction Partnership, Portland, OR, Nov. 8-9, 2006.
- 15. *Design-Build Educator Workshop*, Design-Build Institute of America and the California Center for Construction Education, San Luis Obispo, CA, June 1-3, 2006.
- 16. AISC Faculty Workshop, American Institute of Steel Construction, Rosemont, IL, Sept. 29, 2004.
- 17. Academic Leadership Meeting, Construction Industry Institute (CII), Houston, TX, Oct. 28, 2003.
- 18. *National Construction Industry Education Forum*, American Council for Construction Education (ACCE), Las Vegas, NV, Mar. 21-22, 1999.
- 19. *1999 Mid-Year Meeting*, American Council for Construction Education (ACCE), Monroe, LA, Feb. 17-20, 1999.
- 20. Academic Council Meeting and Workshop, Construction Industry Institute (CII) Annual Conference, Minneapolis, MN, Aug. 5-8, 1998.
- 21. *Engineering Scholars Workshop*, National Science Foundation (NSF), Carnegie Mellon University, Pittsburgh, PA, July 19-24, 1998.

# FUNDED RESEARCH PROJECTS

#### **Principal Investigator:**

- "Implementation Requirements for Work Zone Intrusion Technologies to Reduce Fatalities." Oregon Department of Transportation (ODOT), Project Number SPR 876, \$206,000, Aug. 2023 – Dec. 2025.
- "A Refresh of CII's Zero Accident Techniques," RT-412. PI with Chuma Nnaji (Co-PI) / Texas A&M University and Vineeth Dharmapalan (SME/Consultant) / California Polytechnic University – San Luis Obispo. Construction Industry Institute (CII), \$240,000 (OSU: \$187,872), July 2023 – Aug. 2025.
- 3. "Development of Kiewit Prevention through Design (PtD) Program." Kiewit Engineering Group, Inc., \$47,100, July 2022 June 2024.
- "Best Practices for Work Zone Safety during Traffic Control Placement, Removal, and Modifications." Oregon Department of Transportation (ODOT), Project Number SPR 839, \$166,000, Oct. 2020 – June 2023.
- "Technologies to Prevent Serious Injuries and Fatalities Related to Last-Minute Work Changes," RT-382. Co-PI: Matthew Hallowell/University of Colorado at Boulder. Construction Industry Institute (CII), \$220,000 (OSU: \$179,000), Apr. 2020 – Nov. 2022. (Invited)
- 6. "Using Visual Literacy to Improve Hazard Recognition in Electric Utility Designs." Electric Power Research Institute (EPRI), \$38,000, Sept. 2021 June 2022.
- 7. "Impact of Stand-Up Rebar Tying Tool on Construction Worker Safety and Health Risk." MAX USA Corporation, \$36,000, Mar. 1 Dec. 31, 2021.
- 8. "Alternative Technologies for Mitigating the Risk of Injuries and Deaths in Work Zones." Co-PIs: Joseph Louis / Oregon State University, and Chukwuma Nnaji / University of Alabama.

National Cooperative Highway Research Program (NCHRP) Project 20-07, Task 416, National Academy of Sciences (NAS), \$75,000, Aug. 2020 – Aug. 2021.

- 9. "Identification and Assessment of Musculoskeletal Disorders (MSDs) Risk for Concrete Formwork Systems." Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 20-2-PS), \$29,985, July 2020 – June 2021.
- "Use of Flashing Amber/White Lights on Paving Equipment in Work Zones." Co-PI: David Hurwitz / Oregon State University. Oregon Department of Transportation (ODOT), Work Order No. 19-15, \$110,720, June 2019 – April 2021.
- 11. "Speed Variation and Safety in Work Zones." Oregon Department of Transportation (ODOT), Project Number SPR 822, \$193,000, Sept. 2018 – April 2021.
- "Use of Blue Lights on Paving Equipment in Work Zones." Co-PI: David Hurwitz / Oregon State University. Oregon Department of Transportation (ODOT), Work Order No. 19-03, \$102,970, July 2018 – Feb. 2019.
- "Development of Workforce Sustainability Model for Construction." Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 17-8-PS), \$29,947, Nov. 2017 – Oct. 2018.
- "Construction Work Zone Safety: Use of a Mobile Laser Scanner to Assess Temporary Signage in Work Zones." Co-PI: Michael Olsen/Oregon State University. Oregon Department of Transportation (ODOT), \$118,694, July 2016 – Oct. 2017.
- "Student Worker Safety Guidelines in Roadside Applications and Work Zones." Oregon Department of Transportation (ODOT), Project Number SPR 304-731, \$33,363, June 2016 – Dec. 2017.
- "Use of Additional Lighting for Traffic Control and Speed Reduction in Work Zones." Oregon Department of Transportation (ODOT), Project Number SPR 791, \$175,000, Oct. 2015 – June 2017.
- "Work Zone Intrusion Alert Technologies: Assessment and Practical Guidance." Oregon Department of Transportation (ODOT), Project Number SPR 790, \$221,327, July 2015 – March 2017.
- "NIOSH Prevention through Design (PtD) Research Study." Extension of Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$16,400, Sept. 2015 – Aug. 2016.
- 19. "Implementation of Radar Speed Signs in Mobile Maintenance Operations." Oregon Department of Transportation (ODOT), \$51,550, Nov. 2014 Oct. 2015.
- 20. "NIOSH Prevention through Design (PtD) Research Study." Extension of Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$19,992, Sept. 2014 – Aug. 2015.
- 21. "Safe and Effective Speed Reductions for Freeway Work Zones Phase 3." Oregon Department of Transportation (ODOT), \$49,770, June 2014 Oct. 2014.
- 22. "Safe and Effective Speed Reductions for Freeway Work Zones Phase 2." Oregon Department of Transportation (ODOT), Project Number SPR 769, \$89,960, June 2013 Feb. 2015.
- "Connection between Lean Design/Construction and Construction Worker Safety." Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 13-10-PS), \$29,907, Aug. 2013 – Aug. 2014.

- 24. "NIOSH Prevention through Design (PtD) Research Study." Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$35,000, Sept. 2013 Aug. 2014.
- 25. "Enhancement to Design Risk Factors to include Mechanical and Electrical Systems and Development of Design Rating System." Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$25,000, Sept. 2012 – March 2014.
- 26. "NIOSH Prevention through Design (PtD) Research Study." Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$33,015, Sept. 2012 – Aug. 2013.
- 27. "Implementing Speed Reductions at Specific Interstate Work Zones from 65 mph to 35 mph." Oregon Department of Transportation (ODOT), Project Number SPR 751, \$106,192, April 2012 – Jan. 2013.
- 28. "Evaluation of a Mobile Work Zone Barrier System." Oregon Department of Transportation (ODOT), Project Number SPR 746, \$142,605, July 2011 Jan. 2013.
- 29. "NIOSH Prevention through Design (PtD) Research Study: Benchmarking Management Practices that Support PtD." Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$27,390, July 2011 – April 2012.
- 30. "Identifying and Documenting Successful Construction Hazard PtD Solutions." National Institute for Occupational Safety and Health (NIOSH), \$5,000, Aug. 2010 Aug. 2011.
- 31. "NIOSH Prevention through Design (PtD) Research Study: Benchmarking Management Practices that Support PtD." Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$30,000, July 2010 – June 2011.
- 32. "NIOSH Prevention through Design (PtD) Research Study: Benchmarking Management Practices that Support PtD." Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$22,870, July 2009 – June 2010.
- 33. "Construction Processes and Materials Mapping for Sustainability Assessments." Kiewit Center for Infrastructure and Transportation, Oregon State University, \$9,043, July Dec. 2009.
- 34. "NIOSH Prevention through Design (PtD) Research Study: Benchmarking Management Practices that Support PtD." Intergovernmental Personnel Agreement (IPA) funded by the Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), \$19,828, June 2008 – May 2009.
- 35. "Work Zone Design and Operations Enhancements." Oregon Department of Transportation (ODOT), Project Number SPR 669, \$131,716, Nov. 2007 Dec. 2009.
- 36. "Energizing Innovation in Integrated Project Delivery." Foundation for Integrated Services and Charles Pankow Foundation, \$135,000, Mar. 2006 Dec. 2007.
- 37. "Optimum Illumination for Nighttime Flagger Operations." Oregon Department of Transportation (ODOT), Project Number SPR617, \$70,618, Aug. 2003 Sept. 2005.
- 38. "An Analysis of Construction Accidents from a Design and Planning Perspective." The Center to Protect Workers' Rights (CPWR), Graduate Student Grant Program, \$2,500, Dec. 2003 - Nov. 2004.

- 39. "Evaluation of the Intel Life Cycle Safety Process." Subcontract to the Labor Education and Research Center (LERC), University of Oregon, Eugene, OR, on grant funded by The Center to Protect Workers' Rights, \$70,230, July 2001 June 2004.
- 40. "Investigation of the Viability of Designing for Safety." The Center to Protect Workers' Rights, Washington, D.C., \$19,973, Jan. 2002 Sept. 2003.
- 41. "Design Practices to Facilitate Construction Automation." Construction Industry Institute (CII), RT-183, Austin, TX, \$102,290, Jan. 2001 Sept. 2003.
- 42. "Best Practices for Preventing Hearing Loss in Construction." Oregon Department of Consumer and Business Services, Occupational Safety and Health Training and Education, Salem, OR, \$39,354, Jan. 2002 - Mar. 2003.
- 43. "Using Soundless Chemical Demolition Agents (SCDA's) for Micro-Cracking Concrete." New Investigator Award, University of Nevada, Las Vegas, \$10,000, June 1999 May 2000.
- 44. "Evaluation of Soundless Chemical Demolition Agents (SCDA's) for Use in Creating Micro-Cracking for the Bioremediation of Concrete." Western Alliance to Expand Student Opportunities (WAESO), \$1,378, Jan. - May 1999.
- 45. "Development and Evaluation of a System for Suppressing PM<sub>10</sub> Emissions Generated from the Operation of Earthmoving Equipment in Construction." Clark County Health District, Clark County, NV, \$39,472; Department of Energy (DOE) EPSCoR Young Scholar Program, \$2,500; and Western Alliance to Expand Student Opportunities (WAESO), \$1,378, June 1998 May 1999.
- 46. "Energy Efficient Home Construction." Department of Energy (DOE) EPSCoR Young Scholar Program, \$2,500, June 1998 Aug. 1998.

# **Co-Principal Investigator:**

- "Psychological Safety Training Framework and Case Studies for Construction Workers." Co-PI with Hongtao Dang (PI) / Washington State University. Safety & Health Investment Projects (SHIP) Program, Washington State Department of Labor & Industries, \$173,966 (OSU: \$23,210), May 2023 Nov. 2024.
- "Investigating the Effectiveness of Intrusion Mitigation Technologies in Electrical Utility Work Zones." Co-PI with Chukwuma Nnaji (PI) / Texas A&M University. Electric Power Research Institute (EPRI), \$110,000 (OSU: \$19,920), Oct. 2022 – Sept. 2023.
- "Applied Research and Development to Support Open-Water Testing at PacWave." Co-PI with Bryson Robertson (PI), Matt Evans (Co-PI), Solomon Yim (Co-PI), Pedro Lomonaco (Co-PI), Burkan Isgor (Co-PI), Julie Tucker (Co-PI), Hilary Boudet (Co-PI), Flaxen Conway (Co-PI), and Ted Brekken (Co-PI) / Oregon State University. Department of Energy (DOE), DE-EE0009969, \$2,500,000 (OSU: \$312,356), July 2022 – June 2025.
- 4. "Construction Site Safety Management Training Case Studies." Co-PI with Sathy Rajendran (PI) / Central Washington University. Safety & Health Investment Projects (SHIP) Program, Washington State Department of Labor & Industries, \$174,923 (OSU: \$41,665), July 2020 Oct. 2022.
- "Developing a Prevention through Design (PtD) Guide for Mechanical/Electrical/Plumbing Worker Safety." Co-PI with Hyun-Woo (Chris) Lee / University of Washington. Safety & Health Investment Projects (SHIP) Program, Washington State Department of Labor & Industries, \$174,892 (OSU: \$13,844), July 2020 – March 2022.

- "Approaches to Reducing Intrusion into Electric Utility Work Zones along Public Roadways." Co-PI with Chukwuma Nnaji (PI) / University of Alabama. Electric Power Research Institute (EPRI), \$31,446 (OSU: \$4,000), June – Nov. 2021.
- "Protocol for Assessing Human-Robot Interaction Safety Risks." Co-PI with Chukwuma Nnaji (PI) / University of Alabama. Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 20-4-PS), \$29,961 (OSU: \$2,000), July 2020 – June 2021.
- "Development of Construction Case Studies: Site Specific Safety Plan." Co-PI with Sathy Rajendran (PI) / Central Washington University. Associated General Contractors (AGC) Education and Research Foundation, \$9,000, Nov. 2018 – Nov. 2019.
- "Prevention through Design (PtD) to Make Solar-Ready Houses Safe for Solar Workers." Co-PI with Hyun Woo Lee (PI) / University of Washington. The Center for Construction Research and Training (CPWR), Small Study Program (CPWR Small Study No. 18-4-PS), \$29,154 (OSU: \$3,092), Sept. 2018 Aug. 2019.
- "Develop a Lean Practice Manual for Improving the Safety of Electrical Construction Workers." Co-PI with: Hyun-Woo Lee (PI) and Yon-Woo Kim / University of Washington. Safety & Health Investment Projects (SHIP) Program, Washington State Department of Labor & Industries, \$149,827 (OSU: \$11,590), March 2018 – May 2019.
- "Project Progress Tracking Using Lidar and 4D Information Models." Co-PI with Yelda Turkan (PI) and Michael Olsen / Oregon State University. Oregon Department of Transportation (ODOT), SPR-811, \$95,000, Aug. 2017 – Oct. 2018.
- "Safe and Innovative Work Best Practices for Mechanical Crafts Booklet." Co-PI with: Sathy Rajendran (PI) /CWU, Ali Vahed/McKinstry, and Darrel Zak/Comfort Systems. Safety & Health Investment Projects (SHIP) Program, Washington State Department of Labor & Industries, \$199,944 (OSU: \$42,020), July 2016 – Nov. 2018.
- "Reducing Highway Construction Fatalities through Improved Adoption of Safety Technologies." Co-PI with Chinweike Eseonu (PI) /OSU. Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 17-4-PS), \$29,999, Feb. 2017 – Jan. 2018.
- 14. "Improving Safety on Highway Work-zones by Real-time Tracking of Operation and Equipment Status." Co-PI with Joseph Louis (PI) /Oregon State University. Pacific Northwest Transportation Consortium (PacTrans), \$70,000 (OSU match: \$35,000), Dec. 2016 Dec. 2017.
- 15. "Applying Prevention through Design (PtD) to Solar Systems in Small Buildings." Co-PI with Hyun-Woo (Chris) Lee (PI) /University of Washington. The Center for Construction Research and Training (CPWR), CPWR Small Study No. 16-2-PS), \$29,470 (OSU: \$7,489), Aug. 2016 – July 2017.
- "Highway Worker Safety." Co-PI with David Hurwitz. National Cooperative Highway Research Program (NCHRP) Synthesis 20-05/Topic 47-16, National Academy of Sciences (NAS), \$45,000, Dec. 2015 – Jan. 2017.
- "Using Precursor Analysis to Prevent Low-Frequency/High-Impact Events." Co-PI with Matthew Hallowell (PI) /University of Colorado at Boulder. Construction Industry Institute (CII), RT-321, \$230,175 (OSU: \$68,388), Sept. 2014 – Aug. 2016.
- "Use and Re-use of Formwork: Safety Risks and Reliability Assessment." Co-PI with Andre Barbosa/OSU. Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 13-2-PS), \$29,925, July 2013 – June 2014.

- "Owner's Role in Facilitating Designing for Construction Safety." Co-PI with T. Michael Toole (PI) /Bucknell University. Center for Construction Research and Training, \$99,396 (OSU: \$50,366), July 2008 – June 2010.
- "Cost/Benefits of Constructibility Reviews." Co-PI's: Dr. Phillip Dunston (PI) and Mr. James McManus, University of Washington. National Cooperative Highway Research Program, Washington, D.C., \$39,995, Aug. 2000 - Nov. 2001.
- "Project Labor Agreements." Co-PI's: Mr. Neil Opfer and Dr. Jaeho Son, University of Nevada, Las Vegas. Associated Builders and Contractors (ABC), Las Vegas, NV, \$40,000, Mar. - Aug. 2000.

# **Collaborative Investigator:**

- "FW-HTF-P: Building Human-Technology Safety Partnerships in Roadside Work Zones." Collaborator with Sabya Mishra (PI) / University of Memphis, and Pedro Lopes (Co-PI) / University of Chicago. National Science Foundation (NSF), *Future of Work at the Human-Technology Frontier (FW-HTF) Program*, Project Development Grant, Award No. 2222699, \$149,932 (OSU: \$10,000), Sept. 2022 – Aug. 2023.
- 2. "Safety CPM Project." PI: Dr. Jimmie Hinze, University of Florida. The Center to Protect Workers' Rights (CPWR), Washington, D.C., \$470,000, Jan. 2000 Dec. 2004.
- 3. "Safety Plus: Making Zero Accidents a Reality." PI: Dr. Jimmie Hinze, University of Florida. Construction Industry Institute (CII), RT-160, Austin, TX, \$104,188, June 1999 - June 2001.
- 4. "Field Testing of Dust Suppression Agents using a Portable Wind Tunnel." PI: Dr. David James, University of Nevada, Las Vegas. Clark County Health District, Clark County, NV, \$68,345, June 1998 - June 1999.
- "Supplement to the Constructability Review Process Phase II Study to include the Washington State Ferries." PI: Mr. James McManus, University of Washington. Washington State Ferries, \$35,000, Dec. 1996 - Sept. 1997.
- 6. "Constructability Review Process, Phase II." PI: Mr. James McManus, University of Washington. Washington State Dept. of Transportation, \$69,900, Mar. 1996 Sept. 1997.
- 7. "Designing for Construction Worker Safety." PI: Dr. Jimmie Hinze, University of Washington. Construction Industry Institute (CII), RT-101, Austin, TX, \$79,000, Jan. 1994 - Dec. 1995.

# OTHER FUNDED PROJECTS AND EQUIPMENT AWARDS

# **Principal Investigator:**

 "Virtual Simulation Equipment for Engineering and Safety Research." Equipment Grant, Murdock Charitable Trust, \$393,000 (Total \$835,006 with OSU cost share), Dec. 2020 – Jan. 2024.

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- "Development of Part 645 Construction Inspection of the NRCS National Engineering Handbook." U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), \$80,499. Aug. 2004 – Sept. 2007.
- "Development of CM/GC Best Practices Manual." Associated General Contractors (AGC) Oregon-Columbia Chapter and the Oregon Public Contracting Coalition, \$10,700. Sept. 2001 -Sept. 2002.

# **Co-Principal Investigator:**

1. "Acquisition of Large-Format Plotter for CCEE Computer Lab." Co-PI with Dr. Brian Wood, OSU. OSU FY03 Technology Resource Fee Proposal - Round Two, \$8,111. March 2003.

#### TEACHING

(\* = New course developed)

#### **Oregon State University:**

CEM 343 – Construction Planning and Scheduling (4 qtr. crs.; ~60 students; Sp. 2001 and 2002) CEM 381 – Structures I (4 qtr. crs.; ~50 students; Fall 2000 and 2001) CEM 383 – Structures II (4 qtr. crs.; 60-80 students; annually 2001-2014) CEM 407/CE 507 – Construction Engineering Management Seminar (1 qtr. cr.; ~50 students; annually 2001-03) CEM 441/541 – Heavy Civil Construction Management (4 qtr. crs.; 70-80 students; F02, W04-05) CE 420/520 – Engineering Planning (4 qtr. crs.; 60-80 students; annually 2002-2009; 2015-present) CE 424/524 – Contracts and Specifications (4 qtr. crs.; 80-125 students; annually 2001-2013; 2020) \*CE 427/527 – Temporary Construction Structures (4 qtr. crs.; 65-115 students; annually 2005present) \*CCE 525 – Construction Site Systems Engineering (3 qtr. crs.; 5-15 students; annually 2010present) \*CCE 526 – Design for Safety (3 qtr. crs.; 8-10 students; annually 2013-present) \*CE 507 – CCE Grad Student Seminar (1 qtr. cr.; 20-25 students; F03-08, W04-06, Sp04)

## University of Nevada, Las Vegas:

CEM 100 – Fundamentals of Constr. Mgmt. (3 sem. crs.; ~35 students; Spr. 1999 and 2000)

CEM 251 – Construction Equipment (3 sem. crs.; ~20 students; Fall 1997)

CEM 432 – Temporary Construction Structures (3 sem. crs.; ~10 students; Fall 1998 and 1999)

CEM 451/451L – Construction Estim. I/Constr. Estim. Lab (4 sem. crs.; ~15 students; Fall 1997)

CEM 453 – Construction Scheduling (3 sem. crs.; ~15 students; Spring 1998)

CEM 485 - Construction Law and Contracts (3 sem. crs.; ~15 students; Spring 1999 and 2000)

\*CEM 740 – Constr. Safety and Performance Improv. (3 sem. crs.; ~10 students; Fall 1999)

EGG 307 – Engineering Economics (3 sem. crs.; ~25 students; Summer and Fall 1998)

#### **University of Washington:**

CIVE 306 – Construction Engineering I (4 qtr. crs.; ~40 students)

CIVE 405 – Construction Planning and Scheduling (4 qtr. crs.; ~35 students)

CIVE 407 – Construction Contracts and Specifications (4 qtr. crs.; ~50 students)

\*CIVE 498A – Construction Safety (4 qtr. crs.; ~20 students)

CIVE 520A – Graduate Construction Seminar (1 qtr. cr.; ~10 students)

#### Other:

1. Presenter, *Professional Engineering Exam Review Course for Civil Engineers*, Portland State University. Topics: "Construction – Scheduling" and "Construction – Temporary Structures." Annually, 2010 – 2021.

#### **GRADUATE THESES SUPERVISED**

#### **Oregon State University:**

		Expected
Name	Degree	Graduation
Alotaibi, Abdulaziz	PhD, Civil Engineering	2024
Lee, Wei-Hsuen	PhD, Civil Engineering	2024
Morakinyo, Olusegun	PhD, Civil Engineering	2025
Dai, Qichang	PhD, Civil Engineering	2025
Njemanze, Emmanuel	PhD, Civil Engineering	2027
Ali Esmail	PhD, Civil Engineering	2027

1. Moeung, Serey Raksa: MS, Civil Engineering, 2022, "Best Practices for Work Zone Safety during Traffic Control Placement, Removal, and Modification"

2. Qichang, Dai: MS, Civil Engineering, 2022, "Interaction between Lean Construction and Construction Industrialization"

- 3. Jin, Ziyu: PhD, Civil Engineering, 2021, "Application of Technologies for Temporary Structures during the Design and Construction Phases"
- 4. Alotaibi, Abdulaziz: MS, Civil Engineering, 2020, "Evaluating Worker Performance Using the Energy Concept"
- 5. Al-Saffar, Ola: MS, Civil Engineering, 2020, "Decision-making Tool to Select Construction Contractors Based on Safety Performance"
- 6. Azeez, Mohammed: PhD, Civil Engineering, 2020, "Risk and Reward Perception and Risk-Taking: Applicability, Relationship, and Implication in Construction Safety"
- 7. Karakhan, Ali: PhD, Civil Engineering, 2020, "Assessment of Social Sustainability for the Construction Workforce"
- 8. Liu, Ding: PhD, Civil Engineering, 2019, "Evaluating Industrialization Rate in Construction: A Quantification Model"
- 9. Nnaji, Chukwuma: PhD, Civil Engineering, 2018, "Enhancing Technology Integration in the Construction Industry: A Focus on Safety Technologies"
- 10. AlOmari, Kasim: PhD, Civil Engineering, 2017, "Degrees of Connectivity: A Systematic Accident Causation Model"
- 11. Jafarnejad, Ali: MS, Civil Engineering, 2017, "Investigation of Effectiveness of Radar Speed Signs and Additional Lighting for Speed Control in Highway Construction and Maintenance Work Zones"
- 12. Pestana, Catarina: PhD, Civil Engineering, 2016, "Multi-Criteria Risk Mapping Using Lean Tools for the Architecture, Engineering, and Construction Industry"
- 13. Zhang, Fan: PhD, Civil Engineering, 2016, "Introducing the Concept of Foundational Attributes and Project Metabolism to Assess Construction Project Similarity"
- 14. Nnaji, Chukwuma: MS, Civil Engineering, 2015, "Framework for Measuring Construction Project Performance using Energy"
- 15. Vahed, Ali Moghaddam: MS, Civil Engineering, 2015, "Framework for Assessing the Potential Safety Performance of Construction Mechanical and Electrical Field Employees"
- 16. Das, Amrutha: MS, Civil Engineering, 2014, "Risk and Reliability Associated with Use and Reuse of Vertical Formwork." Co-advisor with Andre Barbosa/Oregon State University.
- 17. Sutanto, Ryan: MEng, Civil Engineering, 2014.

- 18. Tymvios, Nicholas: PhD, Civil Engineering, 2013, "Direction, Method, and Model for Implementing Design for Construction Worker Safety in the US"
- 19. Dharmapalan, Vineeth: MS, Civil Engineering, 2011, "Risk Factor Quantification of Design Elements for Multistory Commercial Office Buildings"
- 20. Hallowell, Matthew: PhD, Civil Engineering, 2008, "A Formal Model for Construction Safety and Health Risk Management"
- 21. Rajendran, Sathyanarayanan: PhD, Civil Engineering, 2006, "Sustainable Construction Safety and Health Rating System"
- 22. Lentine, John-David: MS, Civil Engineering, 2006 (Minor Professor)
- 23. Carpenter, Deanna: MS, Civil Engineering, 2005, "Effects of Contract Delivery Method on the LEED<sup>TM</sup> Score of U.S. Navy Military Construction Projects (Fiscal Years 2004-2006)"
- 24. Armijos-Leray, Jean Pol: MS, Civil Engineering, 2005, "Decision Support System in Highway Concession (BOT) Projects for Developing Countries: Case Study in Ecuador"
- 25. Kaneko, Takuya: MS, Civil Engineering, 2005 (Minor Professor)
- 26. Rajendran, Sathyanarayanan: MS, Civil Engineering, 2004, "Sustainable Roadway Construction: A Study of the Material Waste Generation in the Life Cycle of Roadways"
- 27. Liu, Lei: MS, Civil Engineering, 2004, "A Cost-Benefit Assessment of the CM/GC Delivery System Based on Post-Project Evaluations and Oregon Public Project Data"
- 28. Behm, Michael: PhD, Public Health, 2004 (Minor Professor), "Establishing the Link between Construction Fatalities and Disabling Injuries and the Design for Construction Safety Concept"
- 29. Sandoval-Gil, Jesus: PhD, Civil Engineering, 2004 (Minor Professor), "Permanent Deformation Characteristics of Dense-graded Mixes using Asphalt Pavement Analyzer"
- 30. Machan, Ian: MS, Civil Engineering, 2003, "Determining the Appropriate Staging of Highway Construction"
- 31. Zapata, Pablo: MS, Civil Engineering, 2003, "Life Cycle Analysis of Asphalt and Steel Reinforced Concrete"
- 32. Chansawat, Kasidit: PhD, Civil Engineering, 2003 (Minor Professor), "Nonlinear Finite Element Analysis of Reinforced Concrete Structures Strengthened with FRP Laminates"
- 33. Wieland, Ed: MS, Civil Engineering, 2003 (Minor Professor)
- 34. Turner, Heather: MS, Civil Engineering, 2002, "Owner Safety Practices in State Transportation Agencies"
- 35. Hewitt, Matthew: MS, Civil Engineering, 2002, "Maximizing Construction Automation Implementation"
- 36. Hoy, James: MS, Civil Engineering, 2001, "Automated Construction Technology Survey"
- 37. McCormick, Joe: MS, Civil Engineering, 2001 (Minor Professor), "Essential Elements of a Risk Management Program for a Small Engineering Consulting Firm"
- 38. Gobble, Darrell: MS, Civil Engineering, 2001 (Minor Professor)

# **External Examiner:**

- 1. Pengpeng Li: PhD, Department of Civil and Construction Engineering, Swinburne University of Technology, Melbourne, Australia, Dec. 2018, "Construction Safety Risk Tolerance: Workers versus Managers"
- 2. Natanzi, Atteyeh: PhD, Civil Engineering, School of Civil, Structural, and Environmental Engineering, University College, Dublin, Ireland, 2017, "Soundless Chemical Demolition Agents Performance Under Cold and Cools Temperatures"

- 3. Dilipkumar, Patel Arvindkumar: PhD, Civil Engineering, Indian Institute of Technology Delhi, 2015, "Determinants of Safety Performance in Indian Construction"
- 4. Goldswain, Craig: PhD, Construction Management, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa, 2014, "Architectural Design Interventions toward Improvement of Construction Health, Safety, and Ergonomics in South Africa"
- 5. Huynh, Phuoc Minh: PhD, Civil Engineering, School of Civil, Structural, and Environmental Engineering, University College, Dublin, Ireland, 2012, "Investigation of Crack Propagation Due to Expansion Agents"
- 6. Bust, Philip: PhD, Civil Engineering, Department of Civil and Building Engineering, Loughborough University, Loughborough, England, 2010, "Managing Manual Handling in Construction: An Examination of the Change Process Resulting from Enforcement of Kerb Laying Activities"

# **Other Graduate Student Committees:**

- 1. Zachary Barlow, MS, Civil Engineering, Oregon State University, 2017
- 2. Dillon Alexander, MS, Civil Engineering, University of Colorado at Boulder, 2016
- 3. Gabriel, Marc: Master of Architecture, University of Nevada-Las Vegas, 1999

# UNDERGRADUATE THESES/PROJECTS SUPERVISED

# **Oregon State University:**

- 1. Britsch, Katherine: Honors BS, Construction Engineering Management, 2012, "Evaluation of Shear Resistance of Reinforced Cob." (Minor Professor)
- 2. Dunford, William: Engineering in Context Project, University of Nottingham, 2011, "Health and Safety and Sustainability Comparison of the UK and US Construction Industries."
- 3. Edwardsen, Kelsey: Honors International Degree, Civil Engineering, 2007, "Project Coordinator's Perspective on Planning the Project: Clean water supply in the remote villages of El Naranjito and Las Mercedes, El Salvador"
- 4. Christianson, Carl: Honors BS, Construction Engineering Management, 2005, "Design for Construction Safety: A Case Study with Architect's Perceptions"
- 5. Eykelbosch, Phillip: BA, International Studies, 2004, "Artificial Islands and Land Reclamation as an Option for Coastal City Expansion: A Comparison in Methods between Japan and the Netherlands"

# University of Nevada, Las Vegas:

1. Stewart, Patrick: BS, Construction Management, 1998, "Application of Risk Mapping to Construction Projects"

# **University of Washington:**

- 1. Steitzer, Rod: BS, Civil and Environmental Engineering, 1997, "Risk in Construction Contracts"
- 2. Harlow, H. Randy: Civil and Environmental Engineering, 1997, "Design Effort Relation to Construction Cost Overruns"

# INDUSTRY AND PROFESSIONAL SERVICE

## **Invited Service Activities:**

- External Mentor for Dr. Hongtao Dang, Asst. Professor, School of Design and Construction, Washington State University. External Mentor Program, Washington State University, Feb. 2023 – present.
- 2. Affiliated Researcher, National Center for Construction Safety, University of Kansas, April 2022 present.
- Member, Funded Studies Committee, Construction Industry Institute (CII), 2021 present.
   a. Academic Advisor, Sept. 2022 present.
- 4. External Advisory Board, Northwest Center for Occupational Health and Safety (NWCOHS), University of Washington, Seattle, WA, Member, July 2020 – present.
  a. Chair, May 2023 – present.
- 5. ASU/NIOSH PtD Workshops Steering Committee, coordinated by Arizona State University (ASU), Member, Dec. 2019 present.
- ODOT Safety and Mobility Policy Advisory Committee (SMPAC), Member, 2019 present.
  a. Member, Work Zone Technical Review Subcommittee, July 2021 present.
- 7. ODOT Maintenance and Operations Expert Task Group (ETG). Member, 2011 present.
- 8. Manuscript Reviewer (refereed journals):
  - a. Journal of Construction Engineering and Management, ASCE
  - b. Journal of Management in Engineering, ASCE
  - c. Construction Management and Economics, Taylor & Francis
  - d. Safety Science, Elsevier

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- e. Accident Analysis and Prevention, Elsevier
- f. Automation in Construction, Elsevier
- 9. Manuscript Reviewer, *CI & CRC Joint Conference 2024*, ASCE, Des Moines, Iowa, March 20-23, 2024.

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- 10. Member, ASCE CEBOK Mentored Experience Approval Committee: Risk and Uncertainty Outcome, July Aug. 2023.
- 11. Session Moderator and Manuscript Reviewer, *International Conference on Computing in Civil Engineering (i3CE)*, ASCE, Corvallis, OR, June 25-28, 2023.
- 12. Manuscript Reviewer, *CIB W099 and W123 Annual International Conference*, International Council for Research and Innovation in Building and Construction (CIB), Porto, Portugal, June 21-22, 2023.
- 13. Member, Safety Symposia Steering Committee, National Academy of Construction (NAC), Aug. 2022 Feb. 2023.
- 14. Symposium Leadership Member, *Introducing and Embedding Safety Culture Concepts in Undergraduate Education* safety symposium, National Academy of Construction (NAC), Boulder, CO, Feb. 9, 2023.
- 15. Moderator, NIOSH/ASU Prevention through Design Workshop 2022, May 25-26, 2022 (online).
- 16. Scientific and Technical Committee, *CIB W099 & W123 Annual International Conference*, Glasgow, Scotland, Sept. 9-10, 2021. Member, Feb. 2020 Sept. 2021.
- 17. Panel Session Moderator, *Prevention through Design Workshop 2021*, sponsored by Arizona State University (ASU) and the National Institute for Occupational Safety and Health (NIOSH), May 26-27, 2021.

- 18. NSF Big Ideas proposal review panel: "Future of Work at the Human-Technology Frontier (FW-HTF): Core Research," Member, April May 2020.
- 19. 2020 ASCE Construction Research Congress, ASCE, Tempe, AZ, March 8-10, 2020. Manuscript Reviewer, 2019-2020.
- 20. ODOT Engineering Enhancements Taskforce, Oregon Work Zone Executive Strategy Committee, sponsored by ODOT, OSP, AGC, and Oregon Trucking Association. Member, 2014-2019.
- Manuscript Reviewer (peer-reviewed conference proceedings), CIB W099 and TG59 International Safety, Health, and People in Construction Conference, Salvador, Brazil, Aug. 1-3, 2018.
- 22. Strategic Planning Council, National Institute for Occupational Safety and Health (NIOSH) Prevention through Design (PtD) initiative. Member, 2007-present (council currently not active).
- 23. National Institute for Occupational Safety and Health (NIOSH) NORA Construction Hazard Prevention through Design (CHPtD) Workgroup. Corresponding Member, 2007-present (workgroup currently not active).
- 24. NORA Green Construction Coordinating Committee, National Institute for Occupational Safety and Health (NIOSH). Member, 2011-present (committee currently not active).
- 25. ANSI A10 Construction and Demolition OHS Standards Committee PtD Workgroup. Member, 2014-2017.
- 26. Design for Safety Program Review, Southern Company, Birmingham, AL, Sept. 15-16, 2016. Consultant.
- 27. 2016 Construction Research Congress, ASCE, San Juan, Puerto Rico, May 31 June 2, 2016. Manuscript Reviewer, 2015-2016.
- 28. International Health and Safety Conference: Benefitting Workers and Society through Inherently Safe(r) Construction, CIB W099 – Safety and Health in Construction, Ulster University, Jordanstown Campus, Belfast, Northern Ireland, September 10-11, 2015. Member, Conference Scientific and Technical Committee, and Session Moderator, 2014-2015.
- 29. External Project Review Community, Innovative Manufacturing and Construction Research Centre (IMCRC), Loughborough University. Member, 2007.
- 30. Education Subcommittee, National Institute for Occupational Safety and Health (NIOSH) Prevention through Design (PtD) initiative. Member, 2009-2013.
- International Conference on Achieving Sustainable Construction Health and Safety, W099 Safety and Health in Construction, International Council for Research and Innovation in Building and Construction (CIB), Lund, Sweden, June 2-3, 2014. Manuscript Reviewer, 2013-14.
- 32. 2014 Construction Research Congress, ASCE, Atlanta, GA, May 19-21, 2014. Manuscript Reviewer, 2013-14.
- 33. 2014 Construction Engineering Conference: Leveraging Project and Career Success, Seattle, WA, March 27-29, 2014. Session Moderator.
- 34. Oregon Public Construction Contracting Work Group Advisory Committee, established by Sen. Lee Beyer and Rep. Paul Holvey, Oregon State Legislature. Member, 2011-2013.
- 35. *CIB W099 International Conference on "Modeling and Building Health and Safety,"* Singapore, Sept. 10-11, 2012. Manuscript Review Committee.
- 36. 2012 Construction Research Congress, ASCE, West Lafayette, IN, May 21-23, 2012. Manuscript Reviewer, 2011-12.

- 37. National Institute for Occupational Safety and Health (NIOSH) Prevention through Design (*PtD*) Conference and Workshop, Washington, DC, Aug. 22-24, 2011. Member, Planning Committee.
- 38. *CIB W99 "Prevention through Design: Lessons Learned from the Construction Industry" Conference*, Washington, DC, Aug. 24-26, 2011. Member, Planning Committee.
- 39. *International Conference on Sustainable Design and Construction*," sponsored by AIA and ASCE-CI, Kansas City, Missouri, March 23-25, 2011. Member, Scientific Committee.
- 40. *CIB World Congress 2010*, International Council for Research and Innovation in Building and Construction (CIB), The Lowry, Salford Quays, UK, May 10-13, 2010. Manuscript Reviewer.
- 41. *Making Green Jobs Safe Workshop*, National Institute for Occupational Safety and Health (NIOSH), Washington, D.C., Dec. 14-16, 2009. Member, Planning Committee.
- 42. 14<sup>th</sup> International Symposium on Advancement of Construction Management and Real Estate, Nanjing, China, Oct. 29-31, 2009. Member, International Scientific Committee.
- 43. *Working Together: Planning, Designing and Building a Safe and Healthy Construction Industry,* International Council for Research and Innovation in Building and Construction (CIB) W99 International Conference, Melbourne, Australia, Oct. 21-23, 2009. Member, Scientific and Technical Committee.
- 44. International Council for Research and Innovation in Building and Construction (CIB) TG-59 *People in Construction Conference*, Port Elizabeth, South Africa, July 12-14, 2009. Manuscript Reviewer.
- 45. *Evolution of and Directions in Construction Safety and Health*, International Council for Research and Innovation in Building and Construction (CIB) W99 Working Commission Rinker International Conference, Gainesville, FL, March 9-11, 2008. Member, Scientific and Technical Committee, and Session Moderator.
- 46. National Institute for Occupational Safety and Health (NIOSH) Prevention through Design Workshop, Washington, DC, July 9-11, 2007. Member, Planning Committee, and Rapporteur for Research Functional Area.
- 47. Design for Safety Program Review, Southern Company, Birmingham, AL, Mar. 6-7, 2007. Consultant.
- 48. *International Conference on Global Unity for Safety & Health in Construction*, sponsored by the International Council for Research and Innovation in Building and Construction (CIB) W99 Working Commission and Tsinghua University, Beijing, China, June 28-30, 2006. Member, Scientific and Technical Committee.
- 49. ASCE Construction Research Congress 2005, San Diego, CA, April 5-7, 2005. Session Moderator and Track Chair.
- 50. Construction Institute Day, 2004 ASCE Annual Conference, Baltimore, MD, Oct. 20-22, 2004. Moderator, Constructability Sessions.
- 51. *Research Priorities Meeting*, The Center to Protect Workers' Rights (CPWR), Silver Spring, MD, Apr. 4, 2003. Member, Research Panel.
- 52. "Trends in Project Management." 2003 Construction Research Congress, sponsored by ASCE, Honolulu, HI, March 19-21, 2003. Track Coordinator.
- 53. National Institute for Occupational Safety and Health (NIOSH) National Occupational Research Agenda (NORA) Intervention Effectiveness Program (#OH-00-002), June 2000. Member, Review Panel.
- 54. *The People's Law School 2000*, Nevada Foundation for Consumer Education, Carson City, NV, May 19, 2000. Panelist.

- 55. *Research Forum on Intervention Research in the Construction Industry*, The Center to Protect Workers' Rights (CPWR), Cambridge, MA, March 30-31, 2000. Member, Research Panel.
- 56. Proceedings of the American Society of Civil Engineers (ASCE) Construction Congress VI, Orlando, FL, Feb. 20-22, 2000. Technical Paper Reviewer.
- 57. American Society of Civil Engineers (ASCE) Construction Congress VI, Orlando, FL, Feb. 20-22, 2000. Session Moderator.
- 58. National Institute for Occupational Safety and Health (NIOSH) National Occupational Research Agenda (NORA) Intervention Effectiveness Program (#99150), Aug. 1999. Member, Review Panel.
- 59. 8<sup>th</sup> Annual Construction Safety Conference, Construction Safety Council, Chicago, IL, Feb. 1998. Session Moderator.

# **Conference and Workshop Planning, Organizing, and Hosting:**

- 1. Safety Summit 2015, Corvallis, OR, June 18-19, 2015. Organizer and Host.
- 2. Designing for Safety and Health in Construction Research and Practice Symposium, sponsored by: University of Oregon; Center to Protect Workers' Rights; National Institute for Occupational Safety and Health; Oregon State University; and Industrial Design and Construction, Portland, OR, Sept. 15-16, 2003. Planning Committee Member and Manuscript Reviewer.

# **Other Service and Professional Interactions:**

- 1. ASCE Industry Leaders Council (ILC), Safety Subcommittee. Corresponding Member, 2018 present.
- ASCE Construction Institute, Construction Safety Committee. Member, 1997 present

   Chair, Site Safety Subcommittee, 2018 2022.
- 3. ASCE Construction Institute, Construction Engineering Education Committee. Member, 2013 present.
- 4. ASCE Construction Institute, Temporary Works Committee. Member, 2010 present.
- 5. Construction Industry Institute (CII), Safety Community of Business Advancement. Member, 2012 present.

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- 6. ASCE Civil Engineering Program Criteria Task Committee. Corresponding Member, 2019-2023.
- 7. Oregon Built Environment & Sustainable Technologies (BEST) Center. Member Faculty.
- 8. General Services Administration (GSA) National Register of Peer Professionals Program. Peer Professional, 2004-2007.
- 9. Labor and Personnel Issues, ASCE *Journal of Construction Engineering and Management*. Assistant Specialty Editor, 2003-2006.
- 10. Associated Schools of Construction (ASC), *Journal of Construction Education*. Editorial Advisory Board Member, 1999-2000.
- 11. Associated Schools of Construction (ASC), *Journal of Construction Education*. Review Board Member, 1999-2000.
- 12. American Council for Construction Education (ACCE) review of Construction Management Program at University of New Mexico, Sept. 1999. Accreditation Site Visit Team Member -Member-in-Training.

# UNIVERSITY SERVICE

#### **Oregon State University:**

- 1. CCE Promotion and Tenure (P&T) Advisor, 2020-present.
- 2. College of Engineering Safety Task Force, Member, 2020-present.
- 3. CCE Safety Advisory Committee. Member, 2019-present.
- 4. OSU Human Centered Design (HCD) group. Member, 2016-present.
- 5. OSU Graduation Ceremony. Column Marshal, 2018-present.
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- 6. CCE Peer Teaching Evaluation Committee. Member, 2019-2021.
- 7. OSU Faculty Senate. Member, 2016-2019.
- 8. CCE Strategic Governance Committee. Member, 2015-2016.
- 9. College of Engineering Research Council. Member, 2014-2015.
- 10. College of Engineering Faculty Status Committee. Member, 2011-2017; Vice-Chair, 2012-2013; Chair, 2013-2014.
- 11. Graduate Committee, School of Civil and Construction Engineering. Member, 2001-2006 and 2010-2013, and 2014-2015; Chair, 2002-2003, 2004-2006, 2011-2013.
- 12. Coordinator, CEM Program, School of Civil and Construction Engineering, 2014-2015.
- 13. Member, College of Engineering Strategic Planning Task Force (Community Task Force), 2014-2015.
- 14. Faculty Advisory Committee, College of Engineering, Member, 2013-2014.
- 15. Faculty Senate Student Recognition and Rewards Committee. Member, 2011-2014.
- 16. Marketing and Recruitment Committee, School of Civil and Construction Engineering. Member, 2008-2009.
- 17. Assistant Department Head for CEM, School of Civil and Construction Engineering, 2006-2009.
- 18. Faculty Status Committee, School of Civil and Construction Engineering. Member, 2007-2009.
- 19. Engineers Without Borders (EWB) Student Chapter. Faculty Advisor, 2005-2008.
- 20. College of Engineering Graduate Council. Member, 2005-2007.
- 21. Scholarship Committee, Department of Civil, Construction and Environmental Engineering. Member, 2006-2007.
- 22. Associated General Contractors (AGC) Student Chapter. Faculty Advisor, 2003-2006.
- 23. Department of Civil, Construction and Environmental Engineering. Graduate Coordinator, 2004-2006.
- 24. Curriculum Committee, Department of Civil, Construction and Environmental Engineering. Member, 2000-2001, and 2003-2005.
- 25. A/E and CM/GC Contractor Selection Committee for Apperson Hall renovation project. Member, 2004-2005.
- 26. CM/GC Contractor Selection Committee for new OSU Engineering Building. Member, 2002.
- 27. Faculty Search Committees, CCE:
  - a. Construction positions, 2003-2004, 2013-2014, 2015-2016
  - b. Structures position, 2012-2013 (Chair)
  - c. Resilient Infrastructure position, 2010-2011 (Chair)
  - d. Geomatics positions, 2008-2009, 2011-2012 (Chair)
  - e. Sustainability position, 2007-2008 (Chair)
  - f. CEF Chair position, 2007-2008 (Chair)
  - g. Infrastructure position, 2003-2004
  - h. Geotech position, 2003

- i. CEM Endowed Faculty positions, 2002
- 28. Faculty Search Committees, School of Biological and Population Health Sciences, OSU:
  - a. Environment and Occupational Health position, 2014-2015

## University of Nevada, Las Vegas:

- 1. Search Committee Dean of the College of Engineering, 1999-2000.
- 2. Graduate Council, Construction Management Program Representative, 1999-2000.
- 3. Scholarship Committee, College of Engineering, 1997-2000.
- 4. Facilities and Space Committee, Dept. of Civil and Environmental Engineering, 1997-2000.
- 5. Curriculum Review Committee, Construction Management Program, 1997-2000.
- 6. Associated General Contractors (AGC) Student Chapter. Faculty Advisor, 1997-2000.
- 7. Coordinator, Applied Technologies Academy Distance Education Course, Department of Civil and Environmental Engineering, University of Nevada, Las Vegas, Mar. 1998.

#### **University of Washington:**

- 1. Faculty Council on University Facilities and Services. Member, 1994-1995.
- 2. Graduate and Professional Student Senate. Member, 1993-1995.