

MICHAEL J. MCGINNIS

Senior academic leader and formation scholar focused on integrating faith, learning, leadership, and vocation in Christian higher education.

Current Academic Rank and Appointment

Dean
School of Engineering and Engineering Technology
LeTourneau University

Office Address

LeTourneau University
School of Engineering and Engineering Technology
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Longview, TX 75602
MichaelMcGinnis@letu.edu

Education

Doctor of Philosophy in Civil Engineering, Lehigh University – 2006

Ph.D. Dissertation - *Experimental and Numerical Development of the Core-Drilling Method for the Nondestructive Evaluation of In-situ Stresses in Concrete Structures*

Dissertation Advisor – Dr. Stephen Pessiki

Master of Science in Civil Engineering, University of Connecticut – 1998

M.S. Thesis Topic – *Analytical Studies of Block Shear Failures in Structural Tees Used in Tension*

Thesis Advisor – Dr. Howard Epstein

Bachelor of Science in Civil Engineering, University of Connecticut – 1996

Academic Roles and Responsibilities

LeTourneau University – School of Engineering and Engineering Technology
Professor and Dean (July 2023 – Present)

The University of Texas at Tyler – Department of Civil Engineering

Assistant Professor (August 2007 – August 2013)

Associate Professor (August 2013 – August 2018)

Professor (August 2018 – July 2023)

McNally Civil Engineering Professor (January 2010 – July 2023)

Interim Dean (January 2016 – August 2017)

Associate Dean (September 2017 – July 2022)

Department Chair (August 2022 – July 2023)

Lehigh University – Department of Civil and Environmental Engineering

Post-Doctoral Researcher / Adjunct Faculty (August 2006 – July 2007)

Academic Leadership and Institutional Stewardship

Dean, School of Engineering and Engineering Technology

LeTourneau University

(July 2023 – Present)

Scope and Responsibilities:

- Chief academic and administrative officer for a comprehensive School encompassing engineering, engineering technology, construction management, welding, and materials programs
- Oversight of 5 ABET-accredited undergraduate programs, 2 graduate programs, and 2 newly launched programs (BS Construction Management; MS Engineering Leadership)
- Leadership of approximately 30 full-time faculty and staff and ~500 students
- Management of an annual budget of approximately \$4M, 200,000 sq. ft. of academic space, and 15+ laboratories across 7 buildings
- Responsibility for faculty leadership, academic quality, program development, budgeting, accreditation, assessment, and external engagement
- Lead strategic growth initiatives aligned with institutional mission, enrollment priorities, and workforce needs
- Regular engagement with the Board of Trustees on academic strategy, capital planning, and program development

Selected Initiatives and Outcomes

- Launch of BS Construction Management and M.S. Engineering Leadership Programs
- Providing principal academic leadership for the relocation into a 98,000-square-foot engineering building, including academic visioning, laboratory scope definition, faculty coordination, and alignment of space with pedagogical priorities.
- Oversee ABET accreditation processes across multiple programs
- Led campus-wide initiatives integrating Christian formation into engineering curricula and co-curricular experiences
- Provide institutional leadership on AI, pedagogy, and academic integrity, framing AI as a formation and stewardship issue in Christian higher education
- Conceived and launched a national Christian Engineering Teaching Workshop, convening faculty leaders around pedagogy, vocation, and faith integration
- Lead identity-defining work clarifying the School's educational vision through the t-Shaped Engineer framework
- Lead initiatives focused on student retention, persistence, and belonging

Associate Dean for Student Academic Affairs / Interim Dean/ Department Chair

The University of Texas at Tyler

(2016 – 2022)

- Provided senior academic leadership for undergraduate programs, student success, assessment, and curriculum across the College of Engineering
- Authored a draft College-level strategic plan to guide leadership transition and long-term program development
- Played a central role in the creation, approval, and launch of multiple new academic programs
- Served as principal liaison to university administration on academic policy, retention strategy, and accreditation
- Organized and led externally facing, cross-disciplinary engineering competitions and engagement events to strengthen community and visibility

Selected Initiatives and Outcomes

- Secured approximately \$4M in donor funding to launch a new Chemical Engineering program

- Proposed and executed a statewide online dual-credit engineering program, expanding access and enrollment pipelines
- Oversaw ABET accreditation processes across multiple programs, including initial accreditations and successful reaffirmations
- Proposed and launched programs in Chemical Engineering, Construction Engineering and Engineering Leadership

University-Wide Academic Governance and Leadership

- Served on more than a dozen faculty and senior-level search committees, including chairing a Business Dean Search Committee, demonstrating cross-disciplinary trust and institutional perspective
- **Chair**, University Research Council (2014–2020) – Led advocacy for research productivity, faculty engagement, and allocation of internal research resources across the institution
- **Member**, University Faculty Senate and Executive Council (2011-2016) – Represented faculty interests in shared governance and academic policy
- **Chair**, University Intercollegiate Athletics Committee (2015-2018) – Led faculty coordination during the transition from Division III to Division II athletics
- **Member**, University Graduation Committee (2007-2009) – Work with the Registrar and Staff to ensure successful commencement ceremonies
- **Member**, University Curriculum Committee; Faculty Affairs Committee
- **Member**, Student Success Task Force (2018 – 2022) – Work with university team and Provost’s Office for cross-cutting retention, persistence and graduation initiatives

External Leadership and Professional Stewardship

- Organizing Chair, **Christian Engineering Leaders Summit** (2024, 2025, 2026)
- Member, **ASEE FREE (Future-Ready Engineering Ecosystem) Deans Advisory Committee** (2025)
- Member, **Texas Higher Education Coordinating Board Engineering Field of Study Committee** (2017–2018)
- Conference Chair, ASEE Gulf Southwest Conference (2019)
- Conference Chair, ASCE National Concrete Canoe Competition, Tyler TX (2016)

Long-Term Formation and Student Engagement Leadership

- Faculty Advisor, ASCE Student Chapter (2007–2015)
- Faculty Advisor, ASCE Steel Bridge Team (2015–2017)
- Faculty Advisor, ASCE Concrete Canoe Team (2007–2023)
- Founder and Coordinator, **5GRAPE (5th Grade Reading and Activity Program for Engineering)** (2011)

Formation Scholarship

Books and Major Works

McGinnis, M. J. *The t-Shaped Engineer in the Age of AI: Formation, Vocation, and Christian Education in the Digital Age*. Wipf and Stock, 2026.

McGinnis, M. J. *The Shape of a Leader: Formation Lessons from the Concrete Canoe*. Manuscript in preparation, 11 chapters complete.

Public Scholarship and Platform

Stories from a t-Shaped Engineer (Substack), 40+ illustrated essays on engineering formation, AI, leadership, and Christian vocation (2025–present).

McGinnis, M. J. Multi-part invited blog series, *Christian Scholar's Review*, on engineering formation and faith, April 2026, ongoing contribution.

McGinnis, M. J. "Dementia, Grandpa Hoy, and the Truth of Our Personhood." *Intersections*, Center for Bioethics & Human Dignity, April 2026.

Invited Addresses and Other Presentations

McGinnis, M. J. "God at Work: Engineering as Vocation," Houston Christian University Convocation, January 2027, [invited address](#).

McGinnis, M. J. "Faith, Hope, and Love: Virginia Lee Burton Speaks to the Digital Age," The Pursuit of Love in an Age of Distractions – Grove City College 15th Intercollegiate Colloquium, [Plenary Address](#), October 2026.

McGinnis, M. J. "The Work of Noticing: Children's Stories and the Practices of Care in Reading and Teaching," MW/SW Conference on Christianity and Literature, College of the Ozarks, September 2026 – accepted.

McGinnis, M. J. "A Roadmap for Integrating AI into Christian Engineering Education: Rekindling Purpose, Motivation, and Flourishing in the Digital Age," Calvin University Wisdom in the Age of AI Conference, Grand Rapids, MI, October 2026.

McGinnis, M. J. "AI and the t-Shaped Life – Christian Formation in K-12 Spaces," Dallas Baptist University Forum on International Education and Leadership, [Plenary Address](#), July 2026.

McGinnis, M. J. "Forming t-Shaped Engineers in the Age of AI: A Roadmap for Christian Education and Human Flourishing," Baylor Symposium on Faith and Culture, February 2026.

McGinnis, M. J. "Ethics, Meaning and Purpose – Ethical Formation of Engineers for Modern Needs," East Texas Society of Professional Engineers, Tyler TX, [Invited Talk](#), January 2025

McGinnis, M. J., Lett, J. "Engineering Your Faith - Professional Formation of Engineers with Magnitude and Direction," Challenges and Innovation in Civil and Environmental Engineering Seminar, Notre Dame University, September, [Invited Talk](#), October 2023.

McGinnis, M. J. [Keynote Address](#) - "A Stone Boat Story: How an Absurd Project has been used to Create a Cohesive Community in an Engineering College," Texas Project Lead the Way Conference, Austin Texas, February 2017.

Odell, M., McGinnis, M. J. "Dual Credit in Engineering – What Educators Should Know?" Texas Project Lead the Way Conference, Houston Texas, February 2018.

Odell, M., McGinnis, M. J. "Dual Credit in Engineering? – Lessons Learned at UT Tyler," Texas Project Lead the Way Conference, Austin Texas, February 2017.

Refereed Formation and Pedagogy Scholarship - Faith, Formation and Vocation

McGinnis, M. J., Swartz, B., Dittenber, D., Vander Werff, J. "Lessons Learned at the First Christian Engineering Teaching Workshop," Christian Engineering Conference, Grand Rapids, MI, May 2026.

McGinnis, M. J. "Measuring and Encouraging Christian Faith Development in STEM Students," Christian Engineering Conference, Grand Rapids, MI, May 2026.

McGinnis, M. J., Gangone, M. V., Walsh, K., Lisk, M., Welch, R. W. "Professional Formation of Structural Engineers for Modern Needs – Technical, Relational and Purpose Alignment," ASCE Structures Congress, Boston, MA, April 2026.

McGinnis, M., & Green, M., (2025). "Meaningful Work Matters to the Welding Engineering Workforce - A New Model for Meeting the Needs of Students and Professionals is Proposed," AWS Welding Journal, Vol. 104, No. 4, pp. 20-23.

McGinnis, M. J. (2024). "Engineering, Meaning & Purpose – Professional Formation of Engineers for Modern Needs," American Welding Society Professional Program at FABTECH 2024, Orlando FL, October, 2024.

McGinnis, M. J. "Engineering, Meaning and Faith: Professional Formation of t-shaped Engineers," European Bridge Conference 2024, Edinburgh Scotland, UK, June 2024.

McGinnis, M. J., Lett, J. "Engineering, Meaning and Faith: Professional Formation of Engineers with Magnitude and Direction," 2024 Christian Engineering Conference, Newberg, Oregon, June 2024. *Best Paper Nominee*

Refereed Formation and Pedagogy Scholarship – Pedagogy, Leadership and Curriculum

McGinnis, M. J., (2025) "Creation and Delivery of a Faculty Workshop on Grading – Practical Implications," ASEE Annual Conference, Montreal Canada, June 2025.

McGinnis, M. J., Johnson, J., Johnson, A., (2025) "WIP: Redesign of 1st Year Engineering Programs with Intentionality and Urgency," ASEE Annual Conference, Montreal Canada, June 2025.

Green, M., McGinnis, M. J. "Christian Stewardship during Transitions in Engineering Academic Leadership," 2024 Christian Engineering Conference, Newberg, Oregon, June 2024.

McGinnis, M. J., Green, M. "Transitions in Engineering Education Leadership –Interim to Permanent Deans and Chairs," ASEE 2024 Annual Conference, Portland Oregon, June 2024.

Gangone, M. V., McGinnis, M. J. "Creating a Hands on Civil Engineering Materials Laboratory Experience at Home," ASEE Gulf Southwest Conference, 2022.

Bullard, B., Gangone, M. V., McGinnis, M. J. "Examination of Ethical Dilemmas Facing an Engineering Competition Team," Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler Tx, March 10-12.

McGinnis, M. J., Gangone, M. V., Snodgrass, A., Busby, C., Nalbone, J. T. (2019) "Student Participation on Faculty Hiring Committees – A Perspective" Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler Tx, March 10-12.

McGinnis, M. J., Boylan, J., Gangone, M. V., Shirvaikar, M., Garcia, A. (2019) "Creation and Delivery of a Leadership Training Conference for Engineering Student Organizations," Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler TX, March 10-12.

McGinnis, M. J. (2019) "To Grade or Not to Grade?" Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler TX, March 10-12.

McGinnis, M. J., Gangone, M. V. (2015). "Adding Breadth to a Civil Engineering Structures Track – Perspectives of Students, Employers and Advisory Board Members," Proceedings of the Gulf Southwest Conference of the American Society for Engineering Education, March 2015.

Farnsworth, C. F., Welch, R. W., McGinnis, M. J., Wright, G. (2013). "Bringing Creativity into the Lab Environment," Proceedings of the ASEE Annual Conference and Exposition, Atlanta, GA, June 23-26, 2013.

McGinnis, M. J. (2010). "Exciting Children for STEM Activities: The Power of the GRAPE," Proceedings of the Gulf Southwest Conference of the American Society for Engineering Education, March 2010.

Welch, R. W., McGinnis, M. J. (2010). "Assessment Of Abet 3 A-K In An Open-Ended Capstone?" *2010 American Society for Engineering Education Conference Proceedings*, Louisville. KY, 2010.

McGinnis, M. J., Welch, R. W. (2010). "Capstones with an Industry Model," *2010 American Society for Engineering Education Conference Proceedings*, Louisville. KY, 2010.

McGinnis, M. J., Nalbone, J. T., Rogers, P. D., Su, W., Welch, R. W. (2008). "A Junior Level Capstone Project? Lessons Learned at UT Tyler," ASCE Texas Section Annual Fall Meeting, Dallas, Texas, (2008).

Select Refereed Publications and Grants

Journal Articles

Dávila, E., Weldon, B.D., Bandini, P, McGinnis, M.J., Bullard, B.K. "Adobe Walls Subjected to Monotonic In-Plane Loading: Effect of Moisture, Fiber Type, and Openings." *Infrastructures* **2026**, *11*, 156.

McGinnis, M. J., Jeffress, C., Clipperton, A. (2026). "Insights from Establishing a Welding Robotics Training Facility," *AWS Welding Journal*, Vol. 105, No. 4, pp. 40-43.

McGinnis, M. J.; Gangone, M. V.; Nogales, A.; Gomez-Santana, L-M.; Weldon, B.; Reihl, A.; Tošić, N.; Kurama, Y. (2024). "Experimental and numerical investigation of the bending, shear and punching shear behavior of recycled aggregate concrete precast/prestressed hollow core slabs," *Structural Concrete*, 25 (1), pp 1-25.

Sun, W., Weldon, B. D., McGinnis, M. J., Jiang, R. "Numerical and digital image correlation study of the flexural behavior of prestressed ultra-high-performance concrete beams made from locally available materials," *PCI Journal*, 69 (1), pp. 22-39, 2024.

McGinnis, M. J., Giesler, A., Weldon, B., "Ultra-High Performance Concrete Beam Testing Monitored with Digital Image Correlation," submitted to *Advances in Structural Engineering*, Spring 2022.

BD Weldon, P Bandini, MJ McGinnis, E Dávila, DI García Vera, (2019). "Laboratory Study on the Strength Behaviour of Two Laterally Loaded Adobe Walls," *Infrastructures* 4 (1), 1.

Giesler, A. J., McGinnis, M. J., Weldon, B. D. "Flexural Behavior and Analysis of Prestressed Ultra-High-Performance Concrete Beams Made From Locally Available Materials," *PCI Journal*, 66, 6, pp. 66-80, (2018).

McGinnis, M. J., Davis, M. De La Rosa, A., Weldon, B., Kurama, Y. C. (2017). "Quantified Sustainability of Recycled Concrete Aggregates," *Magazine of Concrete Research* – DOI 10.1680/jmacr.16.00338.

McGinnis, M. J., Davis, M., de la Rosa, A., Weldon, B. D. Kurama, Y.C. (2017). "Strength and Stiffness of Recycled Concrete Aggregate Concrete," *Building and Construction Materials*, 154, pp. 258-269.

Barbachyn, S. M., Kurama, Y. C., McGinnis, M. J., Sause, R. (2016) "A Coupled Wall with Fully Post-Tensioned Beams and Unbonded Rebar at Toes," *ACI Structural Journal*, 113 (6), 1381-1392.

Manning, M. P., Weldon, B. D., McGinnis, M. J., Jauregui, D. V., Newton, C. M. (2016) "Behavior Comparison of Prestressed Channel Girders from High Performance Concrete and Locally Developed Ultra-High Performance Concrete," *Transportation Research Record (TRR), Journal of the Transportation Research Board* No. 2577 pp. 60-68.

McGinnis, M. J. (2015) "In situ stresses in Bridge Beams. Part I: Concrete Stresses," *Magazine of Concrete Research*, 67 (9), 459-466.

McGinnis, M. J. (2015) "In situ Stresses in Bridge Beams. Part II: Prestress Force," *Magazine of Concrete Research*, 67 (9), 467-475.

McGinnis, M. J., Pessiki, S., (2015) "Experimental Study of the Core-Drilling Method for Evaluating In Situ Stresses in Concrete Structures," *ASCE Journal of Materials in Civil Engineering*, **28**, (2).

Barbachyn, S., Kurama, Y., McGinnis, M., and Sause, R. (2016) "Testing and Behavior of a Coupled Shear Wall Structure with Partially Post-Tensioned Coupling Beams," *ACI Structural Journal*. 113, (01), 111-124.

Mueller, K. A., Kurama, Y. C., McGinnis, M. J. (2014). "Out-of-Plane Behavior of Two RC Bearing Walls under Fire: A Full Scale Experimental investigation," *ACI Materials Journal*, (111) No. 1-6.

Smith, B., Kurama, Y., and McGinnis, M. (2012) "Behavior of Precast Concrete Shear Walls for Seismic Regions: Comparison of Hybrid and Emulative Specimens," *ASCE Journal of Structural Engineering*, American Society of Civil Engineers. 139, (11), 1917-1927.

Smith B., Kurama, Y. C., and McGinnis, M. J. (2011). "Design and Measured Behavior of a Hybrid Precast Concrete Wall Specimen for Seismic Regions," *Journal of Structural Engineering*, American Society of Civil Engineers. 137, (10), 1052-1062.

Trautner, C., McGinnis, M., Pessiki, S. (2011). "Application of the Incremental Core Drilling Method to Determine In-Situ Stresses in Concrete," *ACI Materials Journal*, **108**, (3), 290-299.

Trautner, C., McGinnis, M., Pessiki, S. (2010). "Analytical and Numerical Development of the Incremental Core Drilling Method of Non-Destructive Determination of In-Situ Stresses in Concrete Structures," *Journal of Strain Analysis*, 45, 8, pp 647-657.

McGinnis, M. J., Pessiki, S. (2007). "Differential Shrinkage Effects in the Core-Drilling Method," *Magazine of Concrete Research*, **59**, (3), 155-164.

McGinnis, M. J., Pessiki, S. (2007). "Water Induced Swelling Displacements in the Core-Drilling Method," *ACI Materials Journal*, **104**, (1), 13-22.

McGinnis, M. J., Pessiki, S., (2006). "Influence of Steel Reinforcement on In-situ Stress Determination in Concrete Structures by the Core-Drilling Method," Review of Progress in Quantitative Nondestructive Evaluation: Volume 25, edited by D. O. Thomson and D. E. Chimenti, American Institute of Physics, New York, pp. 1358-1365.

McGinnis, M. J., Pessiki, S., Turker, H. (2005). "Application of 3D Digital Image Correlation to the Core-Drilling Method," *Experimental Mechanics*, **45**, (4), 359-367.

Epstein, H. I., McGinnis, M. J. (2000). "Finite Element Modeling of Block Shear in Structural Tees," *Computers and Structures*, **77**, (5), 571-582.

Reviewed Conference Proceedings

Davila, E., Weldon, B. D., Bandini, P., McGinnis, M. J., Gangone, M." Laboratory Study on the Performance of Scaled Adobe Masonry Walls under the Effects of Moisture and Monotonic Lateral Loads," 14th International Conference on Structural Analysis of Historical Constructions (SAHC 2025), Lausanne, Switzerland, September 2025.

McGinnis, M. J., Pessiki, S. "Laboratory and Field Investigation of Crack Movements Using 3D Digital Image Correlation," Structural Faults and Repair 2024, Edinburgh Scotland, UK, June 2024.

McGinnis, M. J., Gangone, M. V., Sharma, P., Weldon, B. "Digital Image Correlation for In-situ Monitoring of Highway Bridges," European Bridge Conference 2024, Edinburgh Scotland, UK, June 2024.

Pirchio, D., Weldon, B. D., McGinnis, M., Doudican, B., Madlem, T. A., Althouse, J. Estes, R., Walsh, K. Q., "Experimental Testing Using Photogrammetry and Parametric Performance Analysis of Various Adhered Semi-Rigid Pultruded FRP Framing Connections for Low-Rise Utility and Access Platforms," Composites and Advanced Materials Exposition and Conference (CAMX), Dallas, TX 2021.

Wasti, A., Gangone, M. V., McGinnis, M. J. (2019) "Experimental Testing of Adobe Clay Bricks with Digital Image Correlation," Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler Tx, March 10-12.

Gomez-Santana, L. M., McGinnis, M. J., Gangone, M. V. (2019) "Digital Image Correlation Method to Measure Young's Modulus of RCA Concrete Mixtures," Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler Tx, March 10-12.

Sharma, P., Gangone, M. V., McGinnis, M. J. (2019) "In-Situ Field Monitoring of a UHPC and HPC Bridge Superstructure under Diagnostic Load Testing Using Digital Image Correlation," Proceedings of the 2019 American Society for Engineering Education (ASEE) Gulf Southwest Conference, Tyler Tx, March 10-12.

Alahmari, T. S., Kennedy, C., Weldon, B. D., Jauregui, D. V., McGinnis, M. J., Gangone, M. V. "Load testing of a nonproprietary UHPC and HPC superstructure," 20th IABSE Congress, New York City 2019: The Evolving Metropolis, New York (2019).

McGinnis, M. J., Gangone, M., Weldon, B. (2017). "Lateral Load Behavior of Masonry Veneer with Advanced Wood Framing," Proceedings of the 13th Canadian Masonry Symposium, Halifax, Nova Scotia Canada, June 4-7.

De La Rosa, A., Davis, M. Weldon, B., Kurama, Y. C., McGinnis, M. J. (2016). "Mechanical Behavior of Recycled Concrete Aggregates (RCA) for Improved Sustainability of Reinforced Concrete Building Structures," Proceedings of the 4th Sustainable Construction Materials and Technologies Conference, Las Vegas, NV August 7-11.

Davis, M., De La Rosa, A., Weldon, B., Kurama, Y. C., McGinnis, M. J. (2016). "Environmental Considerations of Recycled Concrete Aggregates (RCA) for Improved Sustainability of Reinforced Concrete Building Structures," Proceedings of the 4th Sustainable Construction Materials and Technologies Conference, Las Vegas, NV August 7-11.

Manning, M. P., Weldon, B. D., McGinnis, M. J., Jauregui, D. V., Newtson, C. M. (2016). "Behavior Comparison of Prestressed Channel Girders from High Performance Concrete and Locally Developed Ultra-High Performance Concrete," Proceedings of the Transportation Research Board 95th Annual Meeting. January 10-14, Washington D.C.

Manning, M. P., Weldon, B. D., McGinnis, M. J., Jauregui, D. V., Newtson, C. M. (2016). "Locally developed Ultra-High Performance Concrete: Behaviour and Analysis of Prestressed Channel Girders," Proceedings of the 4th International Symposium on Ultra-High Performance Concrete and High Performance Construction Materials, March 9-11, Kassel Germany.

Davis, M., McGinnis, M., Kurama, Y. C. (2015). "Use of Recycled Concrete Aggregates for Improved Sustainability of Reinforced Concrete Building Structures – Economic Considerations," Proceedings of the Gulf Southwest Conference of the American Society for Engineering Education, March 2015.

McGinnis, M. J. (2015). "Core Drilling Method for Determining Stresses and Tendon Forces in Prestressed Concrete Bridges: A Comparison of 2D and 3D Digital Image Correlation Approaches," 16th European Bridge Conference, Edinburgh Scotland, June 2015.

McGinnis, M. J., Gangone, M. V. (2015). "Digital Image Correlation For Bridge Inspection: Impact of Using Commercial Grade Cameras," 16th European Bridge Conference, Edinburgh Scotland, June 2015.

McGinnis, M. J. Rey, J. (2015). "Core Drilling Method for Determining Stresses in Concrete Bridges: Moisture Effects with Small Diameter Cores," 16th European Bridge Conference, Edinburgh Scotland, June 2015.

Barbachyn, S., Kurama, Y., McGinnis, M., and Sause, R. (2015), "Measured Behavior of a Reinforced Concrete Coupled Wall with Fully Post-Tensioned Coupling Beams"; ASCE Structures Congress. Portland, OR.

McGinnis, M., Gangone, M., Weldon, B., Wosick, E. (2014). "Lateral Load Behaviour of Clay Masonry Façade with Advanced Wood Framing," 9th International Masonry Conference, Guimaraes, Portugal, July.

McGinnis, M., Barbachyn, B., and Kurama, Y. (2014). "Application of Multiple Digital Image Correlation Sensors in Earthquake Engineering," 10th National Conference in Earthquake Engineering, Earthquake Engineering Research Institute, Anchorage, AK, 2014, 10 pp.

Barbachyn, B., Kurama, Y., McGinnis, M., and Sause R. (2014). "Lateral Load Behavior of a Post-Tensioned Coupled Core Wall," 10th National Conference in Earthquake Engineering, Earthquake Engineering Research Institute, Anchorage, AK, 2014, 10 pp.

McGinnis, M. J., Mueller, K., Lisk, M., Kurama, Y. (2013). "Out-of-Plane Full Field Strain and Curvature Behavior of Two RC Bearing Walls Under Fire," ASCE Structures Congress, American Society of Civil Engineers, Pittsburgh, PA; May 2-4, 2013.

Smith, B., Kurama, Y., McGinnis, M. J., (2013). "Seismic Displacement Demands for Hybrid Precast Shear Walls," ASCE Structures Congress, American Society of Civil Engineers, Pittsburgh, PA; May 2-4, 2013.

McGinnis, M. J., Barbachyn, S., Holloman, M. R., Kurama, Y. C. (2013). "Experimental Evaluation of a Multi-Story Post-Tensioned Coupled Shear Wall Structure," ASCE Structures Congress, American Society of Civil Engineers, Pittsburgh, PA; May 2-4, 2013.

Mueller, K. A., Kurama, Y. C., McGinnis, M. J. (2012). "Out-of-Plane Behavior of Two RC Bearing Walls under Fire," Proceedings of the 1st International Performance-based and Life-cycle Structural Engineering Conference, Hong Kong, China.

McGinnis, M. J., Smith, B., Holloman, M., Lisk, M., O'Donnell, A., Kurama, Y. C. (2012). "3-D Digital Image Correlation – An Underused Asset for Structural Testing," ASCE Structures Congress, American Society of Civil Engineers, Chicago, Illinois, April, 2012.

Smith, B., Kurama, Y., and McGinnis, M. (2012). "Comparison of Solid and Perforated Precast Concrete Shear Walls for Seismic Regions," Proceedings of the ASCE Structures Congress, Chicago, IL, 29-31 March 2012, 10 pp.

Mueller, K., McGinnis, M., and Kurama, Y. (2011). "RC Walls Subjected to Elevated Temperatures," NSF Engineering Research and Innovation Conference, Atlanta, Georgia, January 4-7, 2011, 9 pp

Kurama, Y. and McGinnis, M., (2011). "NEESR-CR: Post-Tensioned Coupled Shear Wall Systems," NSF Engineering Research and Innovation Conference, Atlanta, Georgia, January 4-7, 2011, 6 pp.

Smith, B., Kurama, Y., and McGinnis, M. (2011). "Design and Measured Behavior of a Perforated Hybrid Precast Concrete Shear Wall for Seismic Regions," Proceedings of the PCI Annual Convention and Exhibition, Salt Lake City, UT, 22-26 October 2011, 12 pp.

McGinnis, M. J., Mueller, K. A., Kurama, Y. C., Graham, K. P., and McGinnis, M. (2011). "Reinforced Concrete Bearing Walls Subjected to Elevated Temperatures," ASCE Structures Congress, American Society of Civil Engineers, Las Vegas, Nevada, April 14-16, 2011.

Smith, B., McGinnis, M., Kurama, Y. (2010). "Full-Field Lateral Response Investigation of Hybrid Precast Concrete Shear Walls," Proceedings of the 3rd International Congress and fib Exhibition Incorporating the PCI Annual Convention and Bridge Conference Proceedings, Washington D.C., April 2010.

McGinnis, M. J., Pessiki, S. (2006). "The Core-Drilling Method for Measuring In-Situ Stress in Concrete Structures – A Review," *Proceedings of the 11th International Conference on Structural Faults and Repair*, Edinburgh, Scotland, UK, (2006).

Technical Invited Talks

McGinnis M. J. (2019). "Use of Digital Image Correlation to Characterize Structural Behavior of Adobe Structures," Center for Bio-mediated and Bio-Inspired Geotechnics (CBBG), November, 2019.

McGinnis, M. J. (2015). "Digital Image Correlation in Structural Testing – Monitoring Extreme Events," Texas A & M University, Zachry Department of Civil Engineering, October 2015.

McGinnis, M. J. (2014). "3-D Digital Image Correlation – An Underused Asset for Structural Testing," Earthquake Engineering Research Institute New Mexico State University, March 2014.

Sponsored Research and Projects

"Evaluation of 3D Printed Concrete Specimens Using 3D Digital Image Correlation," McGinnis, M. J. (PI), Gangone, M.V. (Co-PI), Deidentified Industry Sponsor, \$9,800 (2022).

"Experimental Investigation of UHPC Behavior," McGinnis, M. J. (PI), New Mexico Department of Transportation, \$18,000 (2017).

"Experimental Investigation of Adobe Wall Behavior Part 2," McGinnis, M. J. (PI), National Science Foundation (through the NSF Research Center for Bio-mediated and Bio-inspired Geotechnics at NMSU), \$3,000 (2018).

"Experimental Investigation of Adobe Wall Behavior," McGinnis, M. J. (PI), National Science Foundation (through the NSF Research Center for Bio-mediated and Bio-inspired Geotechnics at NMSU), \$3,000 (2017).

"Engineering Summer Camp 2017 – Engineering Takes Center Stage," McGinnis, M. J. (PI) and Scott, J. (Co-PI), Texas Higher Education Coordinating Board Award Number 18690, \$11,727 (2017).

"Building Air Quality and Energy Center," McGinnis, M. J. (Director), De-identified Industry Sponsor, \$300,000 (2017).

2016 ASCE National Concrete Canoe Competition (Chair), American Society of Civil Engineers, \$125,000, (2016).

"Engineering Summer Camp 2016 – Marine Minds," McGinnis, M. J. (PI) and Scott, J. (Co-PI), Texas Higher Education Coordinating Board Award Number 16716, \$12,900 (2016).

"Smith-Blair Industrial Pipe Fittings Research and Testing," McGinnis, M. J. (PI), Gangone, M. V., Mills, J. \$11,000 (2015).

"Feasibility Analysis of Ultra High Performance Concrete – Phase III Digital Image Correlation Supplement," McGinnis, M. J. (PI), New Mexico State Department of Transportation, \$11,986 (2014).

"Use of Recycled Aggregates for Improved Sustainability of RC Building Structures," Kurama, Y. C., McGinnis, M. J. (Co-PI), \$285,000, (2014).

"Advanced Core Drilling Method for Bridge Assessment," McGinnis, M. J. (PI), Trillion Quality Systems, \$135,934, (2012).

"NEESR-CR: Post-Tensioned Coupled Shear Wall Systems," Kurama, Y. C. (PI), McGinnis, M. J. (Co-PI), National Science Foundation (NSF), \$894,467, (2010).

"Hybrid Precast Wall Systems for Seismic Regions," McGinnis, M. J. (PI), Charles Pankow Foundation, \$12,520 (2010).

"EAGER - Use of Advanced Imaging to Discover Deformation, Temperature and Moisture Behavior of Fire Exposed RC Walls," McGinnis, M. J. (PI), NSF, \$25,000 (2010).

"Improving Firefighter Safety Through Development of Atypical Fire Scenario Cues," McGinnis, M. J. (PI), UT Tyler Faculty Research Competition, \$5,000 (2008).

Teaching

- Taught multiple sections and years across nearly twenty different course preparations across multi-disciplinary engineering and leadership content (e.g. Statics, Mechanics of Materials, Structural Fire Behavior, Freshman Engineering, etc.)
- More than a decade of teaching and mentoring as Instructor and Coordinator of Senior Design Capstone
- Delivered in hybrid, synchronous virtual, face-to-face live, and asynchronous virtual formats for HS, undergraduate and graduate students
- Mentored and advised over a dozen graduate students, and served as Master's Thesis Advisor for nearly a dozen more

Honors and Awards

Christian Engineering Conference, Best Paper Nominee, 2024

ASCE Gulf Southwest Conference – 2nd Place Faculty Paper 2022

Transportation Research Board Concrete Materials Section Best Paper Award 2016

UT Tyler Jack and Dorothy Faye White Fellowship for Teaching Excellence - 2015

McNally Civil Engineering Professor – University of Texas at Tyler Department of Civil Engineering 2010 – 2023 (named Endowed Professorship)

American Society of Civil Engineers (ASCE) ExCEED Young Civil Engineering Educator of the Year, 2011 (New Faculty Excellence in Teaching Award)

ASCE 2012 Student Chapter Faculty Advisor of the Year – Region 6

ASCE 2011 Student Chapter Faculty Advisor of the Year – Region 6

ASCE 2009 Student Chapter Faculty Advisor of the Year – Region 6

ASCE 2008, 2010, 2013 Commended Student Chapter Faculty Advisor – Region 6

UT Tyler Research Award 2012-2013

UT Tyler Department of Civil Engineering Outstanding Teaching Professor – 2012

UT Tyler Department of Civil Engineering Outstanding Teaching Professor – 2009

UT Tyler Department of Civil Engineering Outstanding Teaching Professor – 2008

2009 UT Tyler College of Engineering Regent's Outstanding Teaching Award Selection

2006 American Concrete Institute James Instruments Student Award for Research on Concrete NDT

Lehigh University Department of Civil and Environmental Engineering Gibson Fellow, 2003-2005

Selected as a Member of Chi Epsilon, 1995

National Merit Scholar, 1991 – 1995

IBM Thomas J. Watson Scholarship, 1991 – 1995

Industrial and Professional Experience

Industrial

McGinnis Civil, Tyler TX

President (May 2021 – Present)

- Civil-structural consulting firm owner and Chief Engineer
- Building structural design with rehabilitation/renovation and foundation specialties

General Dynamics – Electric Boat Corporation, Groton, CT

Senior Project Engineer / Structural Analyst (1997 – 2002)

- Analyzed submarine structures such as forgings, castings, shells, plates, frames and bulkheads composed of such materials as ultra high strength steel and fiber reinforced polymer composites
- As Specific Area Team Leader provided design direction and input to teams consisting of structural, mechanical, electrical and piping designers and engineers
- Interacted with vendors, specialized military subcontractors and others to ensure successful completion of tasks within financial and schedule constraints
- Prepared and presented detailed oral and written presentations and proposals to oversight agencies

- Obtained a United States Government SECRET Security Clearance

Other

University of Connecticut – Department of Residential Life

Resident Assistant (1993 – 1996)

- Served in a position that entailed extensive peer counseling, community leadership and role modeling
- Created and executed numerous cultural and diversity training seminars

Professional Registration

Registered Professional Engineer – TX #121531

Professional Society Memberships

American Concrete Institute (ACI)

American Society of Civil Engineers (ASCE)

American Society for Engineering Education (ASEE)

Christian Engineering Society (CES)