

REMY D. LEQUESNE, PH.D., P.E., FACI, M.ASCE
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Education

Ph.D., Structural Engineering	University of Michigan, Ann Arbor, MI	2011
M.S.E., Civil Engineering	University of Michigan, Ann Arbor, MI	2007
B.S.E., Civil Engineering	University of Michigan, Ann Arbor, MI	2005

Employment History

University of Kansas in Lawrence, Kansas	
<i>Black and Veatch Professor</i>	2025 - Present
<i>Associate Dean for Faculty and Staff Affairs</i>	2025 - Present
<i>Professor</i>	2024 - Present
<i>Stanley T. and Phyllis W. Rolfe Chair's Council Associate Professor</i>	2022 - 2024
<i>Associate Professor</i>	2019 - 2022
<i>Chair's Council Assistant Professor</i>	2018 - 2019
<i>Assistant Professor</i>	2013 - 2018
University of Wisconsin in Madison, Wisconsin	
<i>Post-Doctoral Research Associate</i>	2012 - 2013
Wiss, Janney, Elstner Associates, Inc., Northbrook, IL	
<i>Engineering Associate II</i>	2011 - 2012

Licensure

Licensed Professional Engineer, Kansas State Board of Technical Professions	2015 - Present
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Individual Honors and Awards

Henry E. Gould Award for Excellence in Mentoring <i>One annual awardee is nominated and selected by students.</i>	2025
Fellow of the American Concrete Institute	2023
Mete A. Sozen Award for Excellence in Structural Research <i>Awarded by the American Concrete Institute for: Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A. (2021). High-Strength Steel Bars in Earthquake-Resistant RC T-Shaped Walls. ACI Structural Journal, 118(1), 215-226.</i>	2022
Stanley T. and Phyllis W. Rolfe Chair's Council Associate Professor of Civil Engineering	2022
Chair's Council Assistant Professor of Civil Engineering	2018
ACI Young Member Award for Professional Achievement <i>For contributions advancing the use of fiber-reinforced concrete in structural concrete, mentoring students, and service to ACI technical committees.</i>	2017
Miller Scholar Award <i>Awarded by the University of Kansas School of Engineering for research excellence.</i>	2017
Henry E. Gould Award for Excellence in Undergraduate Teaching <i>One annual awardee is nominated and selected by students.</i>	2016

- Wason Medal for Most Meritorious Paper 2016
Awarded by the American Concrete Institute for: Lequesne, R. D. & Pincheira, J. A. (2014). Proposed Revisions to the Strength-Reduction Factor for Axially Loaded Members. Concrete International, 36(9), 43-49.
- Miller Scholar Award 2015
Awarded by the University of Kansas School of Engineering for outstanding overall achievement in teaching, research, and service.
- Outstanding Graduate Student Instructor 2011
Awarded by University of Michigan Graduate School for teaching excellence. Up to twenty awardees are selected annually from among graduate students nominated by faculty.

Publications

Peer-Reviewed

Journal Articles

- Adhikari, B., Spinel, J. S., Lequesne, R. D., & Collins, W., (accepted). Time-Varying Behavior (TVB) Model for Estimation of Long-term Effects of Deck Replacement on Concrete Bridge Behavior, *ASCE Journal of Bridge Engineering*. doi: 10.1061/JBENF2/BEENG-7384
- Rulon, R., Lequesne, R. D., Darwin, D., & Lepage, A., (accepted). Lap Splicing of Large Steel Reinforcing Bars, *ACI Structural Journal*.
- Neupane, U., Lequesne, R. D., Lepage, A., & Darwin, D., (accepted). Behavior of Earthquake-Resistant Rectangular Walls with Mechanically-Spliced Grade 100 Steel Bars, *ACI Structural Journal*.
- Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D., (accepted). Compression Bond Lengths: Study of Test Data and Design Equations, *ACI Structural Journal*.
- Lequesne, R. D., Al-Sabawy, A., Darwin, D., Lepage, A., O'Reilly, M., Guillen, E., & Spradling, D., (2025). Strength and Detailing of Beams with High Strength Headed and Hooked Stirrups, *ACI Structural Journal*, 122(7), 139-153. doi: 10.14359/51745469
- Lepage, A., Lequesne, R. D., & Weber-Kamin, A. S., (2025). Reinforced Concrete Coupling Beams with High-Strength Steel Bars, *ACI Structural Journal*, 122(5), 173-186. doi: 10.14359/51745464
- Pujol, S., Lequesne, R. D., & Sim, C., (2025). The Urgent Need for Increased Robustness of Buildings in Highly Seismic Regions. *Concrete International*, 47(1), 49-55.
- Burgos, E. A., Lepage, A., & Lequesne, R. D., (2024). Influencia de las Propiedades Mecánicas del Acero de Alta Resistencia en el Comportamiento de Muros de Concreto. *Investigaciones Latinoamericanas en Ingeniería y Arquitectura*, 1, 91-99. doi: 10.51378/ilia.vi1.8505
- Pujol, S., Bedirhanoflu, I., Donmez, C., Dowgala, J. D., Eryilmaz Yildirim, M., Klaboe, K., Koroglu, F. B., Lequesne, R. D., Ozturk, B., Pledger, L., & Sonmez, E., (2024). Quantitative Evaluation of the Damage to RC Buildings Caused by 2023 South-East Turkey Earthquake Sequence. *Earthquake Spectra*, 40(1), 505-530. doi: 10.1177/87552930231211208
- Chin, C.-H., Cheng, M.-Y., Lepage, A., & Lequesne, R. D., (2024). Shake Table Tests to Compare the Seismic Response of Concrete Frames with Conventional and High-Strength Reinforcement. *Earthquake Engineering and Structural Dynamics*, 53(1), 89-115. doi: 10.1002/eqe.4008

- Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., Ameen, S., & Cheng, M.-Y., (2023). Chord Rotation Capacity and Strength of Diagonally-Reinforced Concrete Coupling Beams. *ACI Structural Journal*, 120(6), 137-150. doi: 10.14359/51739092, hdl.handle.net/1808/34852
- Ahmad, T., Gharehbaghi, V., Li, J., Bennett, C., & Lequesne, R. D., (2023). Crack Segmentation in the Wild using Convolutional Neural Networks and Bootstrapping. *Earthquake Engineering and Resilience*, 2(3), 348-363. doi: 10.1002/eer.2.52
- Lee, H.-J., Lequesne, R. D., Lepage, A., Lin, J.-X., Wang, J.-C., & Yin, Y.-L., (2023). Minimum Joint Depth for Moment Frames with High-Strength Materials. *ACI Structural Journal*, 120(1), 225-239. doi: 10.14359/51737141, hdl.handle.net/1808/34196
- Daniel, L., Mazumder, R. K., Enderami, S. A., Sutley, E. J., & Lequesne, R. D., (2022). Community Capitals Framework for Linking Buildings and Organizations for Enhancing Community Resilience through the Built Environment. *ASCE Journal of Infrastructure Systems*, 28(1). doi: 10.1061/(ASCE)IS.1943-555X.0000668
- Poudel, A., Ameen, S., Lequesne, R. D., & Lepage, A., (2021). Diagonally Reinforced Concrete Coupling Beams: Effects of Axial Restraint. *ACI Structural Journal*, 118(6), 293-303. doi: 10.14359/51732991, hdl.handle.net/1808/32695
- Sutley, E. J., Kim, J. H., Kirkham, W. J., & Lequesne, R. D., (2021). Examining Tornado Vulnerability in Kansas with Recent Findings from an EF4 Tornado. *Natural Hazards Review*, 22(3). doi: 10.1061/(ASCE)NH.1527-6996.0000476
- Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A., (2021). High-Strength Steel Bars in Earthquake-Resistant RC T-Shaped Walls. *ACI Structural Journal*, 118(1), 215-226. doi: 10.14359/51728091, hdl.handle.net/1808/32694
- Cheng, M.-Y., Wibowo, L. S. B., Giduquio, M. B., & Lequesne, R. D., (2021). Strength and Deformation Capacity of RC Squat Walls Constructed with High-Strength Materials. *ACI Structural Journal*, 118(1), 125-137. doi: 10.14359/51728082, hdl.handle.net/1808/32693
- Alcocer, S., Behrouzi, A., Brena, S., Elwood, K., Irfanoglu, A., Kreger, M., Lequesne, R. D., Mosqueda, G., Pujol, S., Puranam, A., Rodriguez, M., Shah, P., Stavridis, A., & Wood, R., (2020). Observations about the Seismic Response of RC Buildings in Mexico City. *EERI Earthquake Spectra*, 36(S2), 154-174. doi: 10.1177/8755293020942523
- Ameen, S., Lequesne, R. D., & Lepage, A., (2020). Diagonally-Reinforced Concrete Coupling Beams with Grade 120 (830) High-Strength Steel Bars. *ACI Structural Journal*, 117(6), 199-210. doi: 10.14359/51728067, hdl.handle.net/1808/32691
- Lequesne, R. D., Collins, W., Lucon, E., Darwin, D., & Poudel, A., (2020). Interlaboratory Study of Standard Methods for Testing Multi-Wire Steel Prestressing Strand. *PCI Journal*, 65(4), 71-86. doi: 10.15554/pcij65.4-03, hdl.handle.net/1808/32686
- Li, C., Lequesne, R. D., & Matamoros, A., (2019). Girder-Deck Interface: Partial Debonding, Deck Replacement, and Composite Action. *ASCE Journal of Bridge Engineering*, 24(1), 14 pp. doi: 10.1061/(ASCE)BE.1943-5592.0001311, hdl.handle.net/1808/32690
- Sperry, J., Darwin, D., O'Reilly, M., Lepage, A., Lequesne, R. D., Matamoros, A., Feldman, L., Yasso, S., Searle, N., DeRubeis, M., & Ajaam, A., (2018). Conventional and High-Strength Steel Hooked Bars: Detailing Effects. *ACI Structural Journal*, 115(1), 248-258. doi: 10.14359/51700920, hdl.handle.net/1808/25915
- Sperry, J., Darwin, D., O'Reilly, M., Lequesne, R. D., Yasso, S., Matamoros, A., Feldman, L., & Lepage, A., (2017). Conventional and High-Strength Hooked Bars - Part 2: Data Analysis. *ACI Structural Journal*, 114(1), 267-276. doi: 10.14359/51689457, hdl.handle.net/1808/23282

- Sperry, J., Yasso, S., Searle, N., DeRubeis, M., Darwin, D., O'Reilly, M., Matamoros, A., Feldman, L. R., Lepage, A., Lequesne, R. D., & Ajaam, A., (2017). Conventional and High-Strength Hooked Bars - Part 1: Anchorage Tests. *ACI Structural Journal*, 114(1), 255-265. doi: 10.14359/51689456, hdl.handle.net/1808/23283
- Cheng, M.-Y., Hung, S.-C., Lequesne, R. D., & Lepage, A., (2016). Earthquake-Resistant Squat Walls Reinforced with High-Strength Steel. *ACI Structural Journal*, 113(5), 1065-1076. doi: 10.14359/51688825, hdl.handle.net/1808/23427
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2016). Seismic Response of Fiber-Reinforced Concrete Coupled Walls. *ACI Structural Journal*, 113(3), 435-445. doi: 10.14359/51688822, hdl.handle.net/1808/23430
- Matzke, E. M., Lequesne, R. D., Parra-Montesinos, G. J., & Shield, C. K., (2015). Behavior of Biaxially Loaded Slab-Column Connections with Shear Studs. *ACI Structural Journal*, 112(3). doi: 10.14359/51687408, hdl.handle.net/1808/30081
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2013). Seismic Behavior and Detailing of High-Performance Fiber-Reinforced Concrete Coupling Beams and Coupled Wall Systems. *ASCE Journal of Structural Engineering*, 139, 1362-1370. doi: 10.1061/(ASCE)ST.1943-541X.0000687

Journal Articles, under Review

- Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D., (under review). Compression Development of Bars Terminating in Exterior Joints of Special Moment Frames.
- Cheng, M.-Y., Giduquio, M. B., Yuen, T. Y. P., & Lequesne, R. D., (under review). Sliding Shear Strength of RC Squat Wall.
- Zhao, H., Gharehbaghi, V., Li, J., Bennett, C., and Lequesne, R. D., (under review). PIL3D: Pixel-Level Image Localization for Updating 3D Digital Twins of Dams Based on Frequency Convolutional Networks.
- Neupane, U., Niyonyungu, F., Lequesne, R. D., Lepage, A., & Darwin, D., (under review). Behavior of Earthquake-Resistant Column-Foundation Connections.

Magazine Articles

- Pujol, S., Lequesne, R. D., & Sim, C., (accepted). The Urgent Need for Increased Robustness in Buildings in Highly Seismic Regions. *Concrete International*.
- Lequesne, R. D., & Pincheira, J. A., (2014). Proposed Revisions to the Strength-Reduction Factor for Axially Loaded Members. *Concrete International*, 36(9), 43-49. hdl.handle.net/1808/23431

Special Publications of the American Concrete Institute

- Lequesne, R. D., & Collins, W. N., (2020). Load Rating Reinforced Concrete Bridges without Plans: State-of-the-Practice. *SP-342: Advanced Analysis and Testing Methods for Concrete Bridge Evaluation and Design*. Farmington hills, MI: American Concrete Institute. 80-97. doi: 10.14359/51725938, hdl.handle.net/1808/32692
- Parra-Montesinos, G. J., Wight, J. K., Kopczynski, C., Lequesne, R. D., Setkit, M., Conforti, A., & Ferzli, J., (2017). Earthquake-Resistant Fiber Reinforced Concrete Coupling Beams Without Diagonal Bars. *SP-310: Fibre-Reinforced Concrete: From Design to Structural Applications*. Farmington Hills, MI: American Concrete Institute. doi: 10.35789/fib.bull.0079.ch43, hdl.handle.net/1808/24874

- Parra-Montesinos, G. J., Wight, J. K., Kopczynski, C., Lequesne, R. D., Setkit, M., Conforti, A., & Ferzli, J., (2017). Elimination of Diagonal Reinforcement in Earthquake-Resistant Coupling Beams through Use of Fiber-Reinforced Concrete. *SP-313: Proceedings of the First ACI & JCI Joint Seminar: Design of Concrete Structures Against Earthquake and Tsunami Disasters*. Farmington Hills, MI: American Concrete Institute. doi: 10.14359/51689686, hdl.handle.net/1808/24873
- Cheng, M.-Y., Wibowo, L. S. B., Lequesne, R. D., & Lepage, A., (2016). Deformation Capacity and Strength of RC Frame Members with High-Strength Materials. *SP-311: James K. Wight: A Tribute from his Students and Colleagues*. Farmington Hills, MI: American Concrete Institute. doi: 10.14359/51689315, hdl.handle.net/1808/23428
- Lequesne, R. D. & Parra-Montesinos, G. J., (2016). A Review of Research on Shear Strength Decay in Members under Load Reversals. *SP-311: James K. Wight: A Tribute from his Students and Colleagues*. Farmington Hills, MI: American Concrete Institute. doi: 10.14359/51689314, hdl.handle.net/1808/23429
- Lequesne, R. D., Setkit, M., Kopczynski, C., Ferzli, J., Cheng, M.-Y., Parra-Montesinos, G. J., & Wight, J. K., (2011). Implementation of High-Performance Fiber Reinforced Concrete Coupling Beams in High-Rise Core-Wall Structures. *SP-280: Advances in FRC Durability and Field Applications*. Farmington Hills, MI: American Concrete Institute. doi: 10.14359/51683585, hdl.handle.net/1808/32689
- Lequesne, R. D., Setkit, M., Parra-Montesinos, G. J., & Wight, J. K., (2010). Seismic Detailing and Behavior of Coupling Beams Incorporating High-Performance Fiber Reinforced Concrete. *SP-272: Antoine E. Naaman Symposium: Four Decades of Progress in Prestressed Concrete, Fiber Reinforced Concrete and Thin Laminate Composites*. Farmington Hills, MI: American Concrete Institute. doi: 10.14359/51664093, hdl.handle.net/1808/32688
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2009). Test of a Coupled Wall with High Performance Fiber Reinforced Concrete Coupling Beams. *SP-265: Thomas T. C. Hsu Symposium: Shear and Torsion of Concrete Structures*. Farmington Hills, MI: American Concrete Institute. doi: 10.14359/51663288, hdl.handle.net/1808/32687

Conference Proceedings

- Gharehbaghi, V., Li, J., Zhao, H., Bennett, C. R., and Lequesne, R. D., (2025). AI-Powered Digital Twinning and Monitoring of Concrete Dams with Drones and Photogrammetry. *15th International Workshop on Structural Health Monitoring*, Stanford, CA.
- Zhao, H., Gharehbaghi, V., Li, J., Bennett, C. R., and Lequesne, R. D., (2025). YOLO-DCD: A YOLO-Based Framework for Dam Damage Change Detection and 3D Model Updating. *15th International Workshop on Structural Health Monitoring*, Stanford, CA.
- Rehman, F. u., Sharma, A., Lequesne, R. D., and Charkas, H., (2025). Influence of Thermal Cycling on Bond Performance of Reinforcement in Concrete. *Structural Mechanics in Reactor Technology (SMiRT28)*, Toronto.
- Hossain, Md. K., Lequesne, R. D., Bennett, C. R., & Li, J., (2025). Concrete Dam Retrofitting using Carbon Fiber Reinforced Polymer Strands. *United States Society on Dams Annual Conference*, Kansas City, MO.
- Palipana, D. K., Friess, G., Mouak, A. A., Hossain, M. K., Bennett, C. R., Lequesne, R. D., & Li, J., (2025). Behavior of FRP Laminates under Flexure for Concrete Dam Retrofitting Based on Small-and Large-Scale Tests. *United States Society on Dams Annual Conference*, Kansas City, MO.

- Mouak, A. A., Palipana, D. K., Diehm, J. M., Bennett, C. R., Lequesne, R. D., & Li, J., (2025). Evaluation of the Bond of FRP Repairs in Dam Settings. *United States Society on Dams Annual Conference*, Kansas City, MO.
- Palipana, D. K., Mouak, A. A., Bennett, C. R., Lequesne, R. D., & Li, J., (2024). Bond Characterization of FRP under Flexure for Concrete Dam Applications. *United States Society on Dams Annual Conference*, Seattle, WA.
- Doodgaon, A., Li, J., Bennett, C. R., Lequesne, R. D., Ahmad, T., & Gharehbaghi, V., (2024). Synthetic Data Generation for Deep Learning-Based Damage Detection in Concrete Dams. *United States Society on Dams Annual Conference*, Seattle, WA.
- Ahmad, T., Li, J., Gharehbaghi, V., Doodgaon, A., Bennett, C., & Lequesne, R. D., (2024). Structural Health Monitoring and Damage Detection in Concrete Dams using Aerial Photography and Deep Learning. *United States Society on Dams Annual Conference*, Seattle, WA. (extended abstract).
- Donmez, C., Dowgala, J., Eryilmaz-Yildirim, M., Gullu, M. F., Iturburu, L., Koroglu, F. B., Lequesne, R. D., Ozturk, B., Pujol, S., Rincon, J. D., Sim, C., & Speicher, M. S., (2024). Lessons from the 2023 South-East Turkiye Earthquakes: A Study on Damaged RC Buildings Considering the Hassan Index. *18th World Conference on Earthquake Engineering*. Milan, Italy.
- Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., & Ameen, S., (2022). Chord Rotation Capacity of Diagonally Reinforced Concrete Coupling Beams. *12th National Conference on Earthquake Engineering*. Salt Lake City, Utah.
- Burgos, E. A., Huq, M. S., Lequesne, R. D., & Lepage, A., (2022). Moment-Curvature Analysis for Strain Estimates of Concrete T-Shaped Walls Reinforced with High-Strength Steel. *12th National Conference on Earthquake Engineering*. Salt Lake City, Utah.
- Burgos, E. A., Huq, M. S., Lequesne, R. D., & Lepage, A., (2022). Moment-Curvature Analysis for Deformation Capacity of Reinforced Concrete T-Shaped Walls with High-Strength Steel. *12th National Conference on Earthquake Engineering*. Salt Lake City, Utah.
- Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D., (2022). Development and Lap Splice Length of Straight Bars in Compression. *Bond in Concrete 2022*. Stuttgart, Germany, 14-25.
- Rulon, R., Lequesne, R. D., Darwin, D., & Lepage, A., (2022). Lap Splicing of Large High-Strength Steel Reinforcing Bars. *Bond in Concrete 2022*. Stuttgart, Germany, 542-553.
- Banaeipour, A., Darwin, D., O'Reilly, M., Lepage, A., & Lequesne, R. D., (2022). Anchorage of High-Strength No. 14 (43 mm) Hooked Bars. *Bond in Concrete 2022*. Stuttgart, Germany, 627-638.
- Ameen, S., Weber-Kamin, A. S., Lequesne, R. D., & Lepage, A., (2018). Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars. *Eleventh U.S. National Conference on Earthquake Engineering*. Los Angeles, California.
- Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A., (2018). High-Strength Steel Bars in T-Shaped Concrete Walls. *Eleventh U.S. National Conference on Earthquake Engineering*. Los Angeles, California.
- McVey, M., Bennett, C., Collins, W., Lequesne, R. D., Luchies, C., Wilson, S., Sutley, E., Fadden, M., & Melgares, C., (2018). Peer Mentoring for All: Investigating the Feasibility of a Curricular-Embedded Peer Mentoring Structure. *American Society for Engineering Education Annual Conference and Exposition*. Salt Lake City, Utah.

- McVey, M., Bennett, C., Luchies, C., & Lequesne, R. D., (2018). An Investigation of the Effect of Curriculum-Embedded Peer Mentoring on Student Learning in Two Undergraduate Mechanics Courses. *American Society for Engineering Education Annual Conference and Exposition*. Salt Lake City, Utah.
- Ameen, S., Lequesne, R. D., Lepage, A., Weber-Kamin, A. S., & Huq, M. S., (2017). Behavior of Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars. *16WCEE - 16th World Conference on Earthquake Engineering*. Santiago, Chile. 8 pp.
- Huq, M. S., Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., & Ameen, S., (2017). Influence of Mechanical Properties of High-Strength Steel on Deformation Capacity of Reinforced Concrete Walls. *16WCEE - 16th World Conference on Earthquake Engineering*. Santiago, Chile. 8 pp.

Committee Reports and Technical Standards with Contributions from R. Lequesne

- ACI Committee 318 (2019). *Building Code Requirements for Structural Concrete (ACI 318-19) and Commentary on Building Code Requirements for Structural Concrete (ACI 318R-19)*. Farmington Hills, Michigan: American Concrete Institute. 623 pp. doi:10.14359/51716937

Not Peer-Reviewed

Conference Proceedings

- Lequesne, R. D., & Pujol, S., (2024). The Need for Lower Drift Limits. *7th Huixian International Forum on Earthquake Engineering for Young Researchers*, Harbin, China. (extended abstract).
- Lee, H.-J., Lin, J.-X., Lequesne, R. D., Lepage, A., & Wang, J.-C., (2019). Experimental Study on Minimum Interior Joint Depth for Special Moment Frames with High-Strength Reinforcement and Concrete. *The 21st Japan-Taiwan-Korea Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS 2019)*. Hsinchu, Taiwan.
- Tameemi, W., Perez-Irizarry, A. L., Dudnik, V., Lequesne, R. D., & Parra-Montesinos, G. J., (2016). Correlations between Results from Compressive, Flexural, and Tensile Tests of Steel Fiber Reinforced Concrete. *BEFIB2016 - 9th Rilem International Symposium on Fiber Reinforced Concrete*. Vancouver, Canada.
- Monfardini, L., Lequesne, R. D., Minelli, F., Parra-Montesinos, G. J., & Pincheira, J. A., (2015). Stability of Reinforcing Bars in Steel Fiber Reinforced Concrete Flexural Members. *HPFRCC 7 - High Performance Fiber Reinforced Cement Composites*. Stuttgart, Germany.
- Parra-Montesinos, G. J., Wight, J. K., Kopczynski, C., Lequesne, R. D., Setkit, M., Conforti, A., & Ferzli, J., (2014). High-Performance Fiber Reinforced Concrete Coupling Beams: From Research to Practice. *10th U.S. National Conference on Earthquake Engineering*. Anchorage, AK.
- Lequesne, R. D., Setkit, M., Parra-Montesinos, G. J., & Wight, J. K., (2011). High-Strength Steel Fibers as Replacement for Diagonal and Confinement Reinforcement in Coupling Beams. *9th International Symposium on High Performance Concrete – Design, Verification and Utilization*. Christchurch, NZ. 8 pp.
- Parra-Montesinos, G. J., Wight, J. K., Lequesne, R. D., & Setkit, M., (2011). A Summary of Ten Years of Research on HPFRC Coupling Beams. *High Performance Fiber-Reinforced Cement Composites (HPFRCC6)*, Ann Arbor, MI. 9 pp.
- Wight, J. K., Parra-Montesinos, G. J., & Lequesne, R. D., (2011). The Use of High-Performance Fiber-Reinforced Concrete in the Design of Coupled Wall Systems for Earthquake Motions. *fib Symposium 2011*. Prague, Czech Republic, 503-506.

- Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J., (2010). High-Performance Fiber-Reinforced Concrete Coupled-Wall Systems: Design and Behavior. *14th European Conference on Earthquake Engineering*. Ohrid, Republic of Macedonia.
- Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J., (2010). Seismic Detailing and Behavior of Coupled-Wall Systems with High-Performance Fiber-Reinforced Concrete. *9th National and 10th Canadian Conference on Earthquake Engineering*. Toronto, Canada. 10 pp.
- Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J., (2010). Large-Scale Testing of High-Performance Fiber-Reinforced Concrete Coupled Walls. *Joint Conference Proceedings of 7CUEE & 5ICEE*. Tokyo, Japan. 9 pp.
- Wight, J. K., Parra-Montesinos, G. J., & Lequesne, R. D., (2009). The Design of Coupled Wall Systems for Earthquake Motions with High-Performance Fiber Reinforced Concrete. *WCCE-ECCE-TCCE Joint Conference Earthquake & Tsunami*. Istanbul, Turkey. 13 pp.
- Wight, J. K. & Lequesne, R. D., (2008). Earthquake-Resistant Design of Coupling Beam Elements Incorporating High-Performance Fiber Reinforced Concrete. *International Seminar on Seismic-Resistant Design of Reinforced Concrete Structures*. Bogota, Columbia. 97-108.
- Wight, J. K., Parra-Montesinos, G. J., & Lequesne, R. D., (2007). High-Performance Fiber Reinforced Concrete for Earthquake-Resistant Design of Coupled Wall Systems. *Fifth International RILEM Workshop, High Performance Fiber-Reinforced Cement Composites (HPFRCC5)*. Mainz, Germany. 8 pp.

Reports

- Neupane, U., Lequesne, R. D., Lepage, A., and Darwin, D., (2025). *SM Report No. 165: Mechanically-Spliced High-Strength Steel Bars in Earthquake-Resistant Walls*, University of Kansas Center for Research, Inc., 320 pp. hdl.handle.net/1808/35869
- Neupane, U., Lequesne, R. D., Lepage, A., & Darwin, D., (2024). *SM Report No. 162: Behavior of Earthquake-Resistant Reinforced Concrete Column-Foundation Connections*. University of Kansas Center for Research, Inc., 250 pp. hdl.handle.net/1808/35578
- Neupane, U., Niyonyungu, F., Lequesne, R. D., Lepage, A., & Darwin, D., (2024). *Deformation Capacity of Walls with Mechanical Splices and Column-Foundation Connections*. Electric Power Research Institute, Advanced Nuclear Technology Program, Product ID 3002029249, 331 pp. epri.com/research/products/000000003002029249
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Presentations (name of presenter underlined)

- Rehman, F. u., Sharma, A., Lequesne, R. D., and Charkas, H., Klein, D., (2025, August 15). *Influence of Thermal Cycling on Bond Performance of Reinforcement in Concrete*. Structural Mechanics in Reactor Technology (SMiRT28), Toronto.
- Lequesne, R. D., (2025, July 22). *Lessons from the Field: Observing the Need to Advance Resilience Globally*, Panel Discussion on Underscoring the Need for Fundamental Research and Focuses on Advances in Disciplinary and Transdisciplinary Research, 7th Global Summit of the Global Alliance of Disaster Research Institutes (GADRI): Converging Disaster Research and Stakeholder-Engagement for Resilience, Fort Collins, Colorado.
- Hossain, Md. K., Lequesne, R. D., Bennett, C. R., and Li, J., (2025, May 7). *Concrete Dam Retrofitting using CFRP Strands*, United States Society on Dams Annual Conference, Kansas City, Missouri.
- Palipana, D. K., Friess, G., Mouak, A. A., Hossain, Md. K., Bennett, C. R., Lequesne, R. D., and Li, J., (2025, May 7). *Bond Characterization of FRP under Flexure for Concrete Dam Applications*, United States Society on Dams Annual Conference, Kansas City, Missouri.

- Mouak, A. A., Palipana, D. K., Diehm, J. M., Bennett, C. R., Lequesne, R. D., and Li, J., (2025, May 7). *Evaluation of the Bond of FRP Repairs in Dam Settings*, United States Society on Dams Annual Conference, Kansas City, Missouri.
- Lequesne, R. D., (2024, March 31). *Is $A_{v,min}$ Too Low?* ACI Spring Convention, Toronto, Canada.
- Doodgaon, A., Li, J., Bennett, C., & Lequesne, R. D., (2024, November 3). *Automating Synthetic Data Generation for Deep Learning-Based Damage Detection in Concrete Dams*. ACI Fall Convention, Philadelphia, Pennsylvania.
- Lequesne, R. D., & Pujol, S., (2024, August 20). *The Need for Lower Drift Limits*. 7th Huixian International Forum on Earthquake Engineering for Young Researchers, Harbin, China.
- Lequesne, R. D., (2024, March 7). *Field Observations Following the 2023 Turkiye-Syria Earthquakes*. 69th Annual Structural Engineering Conference, Lawrence, Kansas.
- Lequesne, R. D., (2023, December 1). *ACI 318-19 Development of Hooked and Headed Bars: A Brief History*. Taiwan Concrete Institute Convention, Taipei, Taiwan. Invited Keynote Lecture.
- Lequesne, R. D., (2023, October 30). *2023 Turkey-Syria Earthquakes: Observations on Reinforcement Detailing*. ACI Convention, Boston, MA.
- Lequesne, R. D., (2023, October 26). *Structural Engineering and Materials*. KU-VTT Collaboration Seminar. Remote.
- Lequesne, R. D., (2023, October 21). *ACI 133 Survey of Concrete Buildings*. ASCE Convention, Chicago, IL.
- Neupane, U., Lequesne, R. D., Lepage, A., & Darwin, D., (2023, April 3). *Behavior of Earthquake-Resistant Rectangular Walls with Mechanical Splices*. ACI Convention, San Francisco, CA.
- Huq, M. S., Burgos, E. A., Lequesne, R. D., & Lepage, A., (2022, October 25). *High-Strength Steel Bars in Earthquake Resistant Reinforced Concrete T-Shaped Walls*. ACI Convention, Dallas, TX.
- Lequesne, R. D., (2022, July 27). *Update on Bond Provisions in ACI Committees 408 and 318*. 5th Bond in Concrete, Stuttgart, Germany.
- Banaeipour, A., Darwin, D., O'Reilly, M., Lepage, A., & Lequesne, R. D., (2022, July 26). *Anchorage of High-Strength 43-mm Hooked Bars*. 5th Bond in Concrete, Stuttgart, Germany.
- Rulon, R., Lequesne, R. D., Darwin, D., & Lepage, A., (2022, July 25). *Lap Splicing Large Reinforcing Bars*. 5th Bond in Concrete, Stuttgart, Germany.
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- Lepage, A., Lequesne, R. D., Weber-Kamin, A. S., & Ameen, S., (2022, June 29). *Chord Rotation Capacity of Diagonally-Reinforced Concrete Coupling Beams*. 12th National Conference on Earthquake Engineering, Salt Lake City, Utah.
- Burgos, E. A., Huq, M. S., Lequesne, R. D., & Lepage, A., (2022, June 28). POSTER: *Moment-Curvature Analysis for Strain Estimates of Concrete T-Shaped Walls Reinforced with High-Strength Steel*. 12th National Conference on Earthquake Engineering. Salt Lake City, Utah.
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- Lequesne, R. D., Darwin, D., Lepage, A., Rulon, R., Neupane, U., & Niyonyungu, F., (2022, May 24). *Lap Splicing of Large Steel Reinforcing Bars*. Construction Innovation Workshop for Advanced Nuclear Reactors, Electric Power Research Institute, Charlotte, NC. Remote.
- Valentini, G., Lequesne, R. D., Lepage, A., & Darwin, D., (2021, October 17). *Development and Splice Length of Straight Bars in Compression*. ACI 408 Committee. Remote.
- Lequesne, R. D., (2020, June 4). *Update on Progress of ACI Committees 408 and 318*. fib Task Group 2.5. Remote.
- Lee, H.-J., Lin, J.-X., Lequesne, R. D., & Lepage, A., (2020, June 3). *Bond of High-Strength Reinforcement in Joints of Earthquake-Resistant Concrete Moment Frames*. ACI Summer Virtual Sessions. Remote.
- Kim, J., Sutley, E. J., Lequesne, R. D., Kirkham, B., Li, J., & Chen, Z., (2020, April). *Multi-Hazard Damage Observations from the May 2019 Linwood, KS Tornado*. ASCE SEI Structures Congress, St. Louis, MO.
- Sutley, E. J., Lequesne, R. D., Kim, J., Kirkham, W., & Clements, J., (2019, October). *Leveraging Recent Post-Tornado Damage Findings to Evaluate Kansas Tornado Vulnerability*. THWARTS: Tornado Hazard Wind Assessment and ReducTION Symposium, Urbana-Champaign, IL.
- Lequesne, R. D., (2019, July 25). *Simpler Robust Coupling Beams*. National Center for Research on Earthquake Engineering (NCREE) and National Taiwan University (NTU), Taipei, Taiwan.
- Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E., (2019, May 15). *Proposed Revisions of the ASTM A1061 Standard*. ASTM Committee Days, Denver, CO. Remote.
- Mudaliar, T., Lequesne, R. D., & Fadden, M., (2019, April 25). *Structural Behavior of Optimized RC Walls Constructed with 3D Printed Formwork*. ASCE SEI Structures Congress, Orlando, FL.
- Lequesne, R. D. & Collins, W., (2019, March 26). *Load Rating Reinforced Concrete Bridges without Plans: State-of-the-Practice*. ACI Convention, Quebec City, QC, CA.
- Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E., (2019, March 1). *Development of a Precision Statement for the ASTM A1061 Test Method*. PCI Spring Convention, Louisville, KY.
- Lequesne, R. D., (2018, October 25). *Developments in Bond at ACI Committees 408 and 318*. fib Task Group 2.5, Turin, Italy.
- Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E., (2018, October 13). *Development of a Precision and Bias Statement for the ASTM A1061 Test Method*. PCI Committee Days, Research and Development Council, Rosemont, IL.
- Lequesne, R. D., Collins, W., Darwin, D., Poudel, A., & Lucon, E., (2018, October 11). *Development of a Precision and Bias Statement for the ASTM A1061 Test Method*. PCI Committee Days, Committee on High Strength Steel and Prestressed Reinforcement, Rosemont, IL.
- Lequesne, R. D., Ameen, S., Weber-Kamin, A. S., & Lepage, A., (2018, June 28). *Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. 11th National Conference on Earthquake Engineering, Los Angeles, CA.
- Lequesne, R. D., Huq, M. S., Burgos, E. A., & Lepage, A., (2018, June 28). *High-Strength Steel Bars in T-Shaped Concrete Walls*. 11th National Conference on Earthquake Engineering, Los Angeles, CA.

- McVey, M., Bennett, C., Collins, W., Lequesne, R. D., Luchies, C., Wilson, S., Sutley, E., Fadden, M., & Melgares, C., (2018, June 26). POSTER: *Peer Mentoring for All: Investigating the Feasibility of a Curricular-Embedded Peer Mentoring Structure*. American Society for Engineering Education Annual Conference and Exposition, Salt Lake City, UT.
- McVey, M., Bennett, C., Luchies, C., & Lequesne, R. D., (2018, June 25). *An Investigation of the Effect of Curriculum-Embedded Peer Mentoring on Student Learning in Two Undergraduate Mechanics Courses*. American Society for Engineering Education Annual Conference and Exposition, Salt Lake City, UT.
- Lequesne, R. D. & Lepage, A., (2018, March 1). *High-Strength Steel in Structural Concrete: From Research to Building Codes*. 63rd Annual Structural Engineering Conference, Lawrence, Kansas.
- Pincheira, J.A., Olson, C., & Lequesne, R. D., (2017, November). *Vibraciones de Pisa en un Edificio con Losas Aligeradas*. 5th International Congress of Engineering Materials and Structures, Universidad Militar Nueva Granada, Bogota, Colombia.
- Yasso, S., Lepage, A., Darwin, D., Lequesne, R., & O'Reilly, M., (2017, March 27). *Development Length of High-Strength Bars in Tension*. ACI Convention, Detroit, MI.
- Weber-Kamin, A., Ameen, S., Lequesne, R., Lepage, A., & Huq, M. S., (2017, January). *Behavior of Diagonally Reinforced Concrete Coupling Beams with High-Strength Steel Bars*. 16WCEE - 16th World Conference on Earthquake Engineering, Santiago, Chile.
- Weber-Kamin, A., Huq, M. S., Lepage, A., Lequesne, R., & Ameen, S., (2017, January). POSTER: *Influence of Mechanical Properties of High-Strength Steel on Deformation Capacity of Reinforced Concrete Walls*. 16WCEE - 16th World Conference on Earthquake Engineering, Santiago, Chile.
- Lequesne, R. D., Tameemi, W., Perez-Irizarry, A. L., Dudnik, V., & Parra-Montesinos, G. J., (2016, September 20). *Correlations between Results from Compressive, Flexural, and Tensile Tests of Steel Fiber Reinforced Concrete*. BEFIB2016 - 9th International Symposium on Fiber Reinforced Concrete, Vancouver, Canada.
- Lequesne, R. D., Darwin, D., Lepage, A., O'Reilly, M., Al-Sabawy, A., & Spradling, D., (2016, April 18). *Use of Headed Grade 80 Bars as Shear Reinforcement*. ACI Convention, Committee 445 Meeting, Milwaukee, Wisconsin.
- Parra-Montesinos, G. J., Lequesne, R. D., Monfardini, L., Minelli, F., & Pincheira, J. A., (2015, June 2). *Stability of Reinforcing Bars in Steel Fiber Reinforced Concrete Flexural Members*. High Performance Fiber Reinforced Cementitious Composites 7 (HPFRCC 7), Stuttgart, Germany.
- Cheng, M.-Y., Wibowo, L. S.B., Lequesne, R. D., Lepage, A., & Giduquio, M. B., (2014, October 27). *Deformation Capacity and Strength of RC Frame Members Constructed with High-Strength Materials*. ACI Convention, Washington, D.C.
- Lequesne, R. D. & Parra-Montesinos, G. J., (2014, October 26). *Understanding Shear Behavior under Load Reversals through James K. Wight's Research*. ACI Convention, Washington, D.C.
- Lequesne, R. D., (2014, June 12). *Strut-and-Tie Models for Shear Design: AASHTO Specifications*. Kansas ASCE Structural Group Meeting, Topeka, KS.
- Lequesne, R. D., (2014, March 6). *Fiber-Reinforced Concrete and Earthquake-Resistant Design*. 59th Annual Structural Engineering Conference, Lawrence, KS.

- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2013, March 28). *Behavior and Design of High-Performance Fiber Reinforced Concrete Coupling Beams and Coupled Wall Systems*. University of Nebraska, Lincoln, NE.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2013, February 28). *Behavior and Design of Coupling Beams and Coupled Walls Constructed with High-Performance Fiber Reinforced Concrete*. University of Kansas, Lawrence, KS.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2013, February 7). *High-Performance Fiber Reinforced Concrete Coupling Beams and Coupled Wall Systems: Behavior and Design*. University of Minnesota, Duluth, MN.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2011, September 16). *Behavior and Design of High-Performance Fiber Reinforced Concrete Coupling Beams and Coupled Wall Systems*. Structural Engineers Association of Ohio, Annual Meeting, Columbus, OH.
- Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J., (2010, July 28). *Seismic Detailing and Behavior of Coupled Wall Systems with High-Performance Fiber-Reinforced Concrete*. 9th National and 10th Canadian Conference on Earthquake Engineering, Toronto, ON, Canada.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2010, March 20). *Seismic Response of High-Performance Fiber-Reinforced Concrete Coupled Walls*. 6th International Workshop on Structural Concrete in the Americas, Chicago, IL.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2009, June 10). POSTER: *Innovative Applications of Damage Tolerant Fiber-Reinforced Cementitious Materials for New Earthquake-Resistant Structural Systems and Retrofit of Existing Structures*. NSF Program CMMI Meeting, Honolulu, Hawaii.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2009, February 12). POSTER: *Seismic Detailing and Behavior of Precast High-Performance Fiber Reinforced Concrete Coupling Beams*. EERI Annual Meeting, Salt Lake City, Utah.
- Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J., (2008, November 3). *Earthquake Resistant Design of Coupled Wall Systems Incorporating High-Performance Fiber-Reinforced Concrete*. ACI Convention, St. Louis, MO.
- Lequesne, R. D., Parra-Montesinos, G. J., & Wight, J. K., (2008, March 31). *High Performance Fiber Reinforced Concrete in Earthquake-Resistant Coupled Wall Systems*. ACI Convention, Los Angeles, CA.
- Lequesne, R. D., Wight, J. K., & Parra-Montesinos, G. J., (2007, July 10). *High Performance Fiber Reinforced Concrete for Earthquake Resistant Design of Coupled Wall Systems*. Fifth International RILEM Workshop, High Performance Fiber-Reinforced Cement Composites (HPFRCC5), Mainz, Germany.

Grants

External Research Funding

- Collins, W., (Principal), & Lequesne, R. D., (Co-Principal). *Thermal Effects on Concrete Substructure Elements*, Kansas Department of Transportation, \$162,627 (August 2025 – August 2027).
- Lequesne, R. D., (Principal, University of Kansas), & Sharma, A., (Co-Principal, Purdue University). *Advanced Nuclear Reactors: Bond under High Temperature*, Electric Power Research Institute, \$489,997 (\$229,847 at the University of Kansas) (January 2023 – June 2026).

- Bennett, C., (Principal), Lequesne, R. D., (Co-Principal), Li, J., (Co-Principal), Collins, W., (Co-Principal), Lepage, A., (Co-Principal), Darwin, D., (Co-Principal), O'Reilly, M., (Co-Principal), Hansen, A., (Co-Principal), & Husic, A., (Co-Principal), *Improving the Performance of Concrete Dam Infrastructure through Use of Fiber Reinforced Polymers*, U.S. Army Corp of Engineers. Budgeted amount: \$7,740,921 (April 2022 – April 2027). Y1 to Y3 appropriated for a total of \$4,286,377; Y4 and Y5 under contract, pending appropriation.
- Lequesne, R. D., (Principal), Lepage, A., (Co-Principal), & Darwin, D., (Co-Principal), *Splicing, Coupling, and Anchorage of Large High-Strength Steel Reinforcing Bars in Earthquake-Resistant Structures*, Electric Power Research Institute, \$650,000 (March 2020 – December 2023).
- Darwin, D., (Principal), Lequesne, R. D., (Co-Principal), & O'Reilly, M., (Co-Principal), *Bond Behavior of Epoxy Coated Reinforcing Bars in Non-proprietary UHPC*, Oklahoma Department of Transportation, \$251,820 (October 2021 – September 2023).
- Lequesne, R. D., (Principal), & Collins, W., (Co-Principal), *Re-decking Prestressed Concrete Girders Phase II: Examining Long-term Impacts using Monte Carlo Simulations*, Kansas Department of Transportation, \$44,049 (August 2022 – August 2024).
- Lequesne, R. D., (Principal), & Collins, W., (Co-Principal), *Re-decking Prestressed Concrete Girders Phase I: State-of-the-Practice and Preliminary Analysis Recommendations*, Kansas Department of Transportation, \$73,329 (August 2021 – May 2023).
- Lequesne, R. D., (Principal), Lepage, A., (Co-Principal), & Darwin, D., (Co-Principal), *Development of Hooked, Headed, and Straight Bars in Compression*, Concrete Reinforcing Steel Institute, \$90,000 (May 2020 – December 2022).
- Husic, A., (Principal), Collins, W., (Co-Principal), Lequesne, R. D., (Co-Principal), & Roundy, J., (Co-Principal), *Development of Condition Factors and Bridge Load Ratings through Statistical Analyses of the NBI Database*, Kansas Department of Transportation, \$46,501 (August 2021 – August 2022).
- Darwin, D., (Principal), Lequesne, R. D., (Co-Principal), Lepage, A., (Co-Principal), & O'Reilly, M., (Co-Principal), *Development of Large High-Strength Headed Reinforcing Bars*, Charles Pankow Foundation, ACI Foundation, BarSplice Products, Headed Reinforcement Corporation, Pentair, and CRSI Education and Research Foundation, \$380,000 (August 2018 – August 2022).
- Lequesne, R. D., (Principal), & O'Reilly, M., (Co-Principal), *UHPC Mixture Design for Accelerated Bridge Construction*, Kansas Department of Transportation, \$56,702 (January 2021 – December 2021).
- Lequesne, R. D., (Principal), & Collins, W., (Co-Principal), *Synthesis of Rating Methodologies for Concrete Bridges without Plans*, Kansas Department of Transportation and Federal Highway Administration, \$39,488 (February 2018 – January 2019).
- Lequesne, R. D., (Principal), Collins, W., (Co-Principal), Darwin, D., (Co-Principal), & Lucon, E., (Consultant), *Development of Precision and Bias Statement for ASTM A1061*, Precast/Prestressed Concrete Institute, \$105,288 (October 2017 – September 2018).
- Lepage, A., (Principal), & Lequesne, R. D., (Co-Principal), *Reinforced Concrete Coupling Beams with High-Strength Steel Bars*, Charles Pankow Foundation, \$150,000, (January 2017 – September 2018).

- Lepage, A., (Principal), & Lequesne, R. D., (Co-Principal), *Deformation Capacity of Concrete Structural Walls Reinforced with Grade 100 Steel Bars*, CMC, \$50,000 (September 2016 – March 2018).
- Lepage, A., (Principal), & Lequesne, R. D., (Co-Principal), *Deformation Capacity of Concrete Structural Walls Reinforced with ASTM A1035 Steel Bars*, MMFX Technologies Corporation, \$55,000 (July 2016 – December 2017).
- Darwin, D., (Principal), Lequesne, R. D., (Co-Principal), Lepage, A., (Co-Principal), & O'Reilly, M., (Co-Principal), *Use of Headed Bars as Shear Reinforcement*, Electric Power Research Institute, \$400,000 (August 2014 – August 2017).
- Lequesne, R. D., (Principal), & Matamoros, A., (Co-Principal), *Composite Action in Prestressed NU I-Girder Bridge Deck Systems Constructed with Bond Breakers to Facilitate Deck Removal*, Kansas Department of Transportation, \$83,000 (August 2014 – April 2017).
- Lepage, A., (Principal), & Lequesne, R. D., (Co-Principal), *High-Strength Steel Bars in Reinforced Concrete Walls: Influence of Mechanical Properties of Steel on Deformation Capacity*, Charles Pankow Foundation, \$112,000 (November 2014 – October 2016).

Internal Funding

- Collins, W., (Principal), & Lequesne, R. D., (Co-Principal), *CTE Course Transformation Grant: Flipping the Classroom to Improve Engagement and Better Serve Students in Large Lecture Sections of CE 310, Strength of Materials*, University of Kansas Center for Teaching Excellence, \$2,125 (April 2025 – January 2026).
- Hutchinson, J., (Principal), Bennett, C., (Co-Principal), & Lequesne, R. D., (Co-Principal), *The Mapping and Assessment Planning (MAP) Program - CEAE*, University of Kansas Center for Teaching Excellence, \$3,600 (February 2023 – February 2024).
- Lequesne, R. D., (Principal), *ASCEND Funding: High Temperature Effects on Bond in Concrete*, KU School of Engineering, \$15,000 (January 2023 – December 2023).
- Roundy, J., (Principal), Husic, A., (Co-Principal), Hansen, A., (Co-Principal), Tran, D., (Co-Principal), Lequesne, R. D., (Co-Principal), Young, B., (Co-Principal), & Misra, A., (Co-Principal), *Integrating PYTHON Based Active Learning Modules into the CEAE Curriculum*, CTE Course Transformation Grant, \$3,000 (March 2021 – May 2022).
- Parsons, R., (Principal), Bennett, C., (Co-Principal), Kondyli, A., (Co-Principal), Lequesne, R. D., (Co-Principal), Li, J., (Co-Principal), Lines, B., (Co-Principal), McVey, M., (Co-Principal), Medina, M., (Co-Principal), Roundy, J., (Co-Principal), & Sutley, E., (Co-Principal), *Benchmarks for Teaching Effectiveness Project; Cohort Three: Department of Civil, Environmental, and Architectural Engineering*, \$5,000, (December 2019 – December 2020).
- Lequesne, R. D., (Principal), *Pilot Study: Deformation Capacity of Interior Slab-Column Connections with Openings*, University of Kansas General Research Fund, \$7,280 (July 2016 – June 2017).
- Fadden, M., (Principal), Lequesne, R. D., (Co-Principal), & McVey, M., (Co-Principal), *University of Kansas TRESTLE Course Transformation Grant: CE 310 - Strength of Materials Laboratory Transformation*, \$3,750 (October 2016 – May 2017).
- Lequesne, R. D., (Principal), *Quantification of Fiber Distribution and Orientation in Fiber Reinforced Concrete Materials*, University of Kansas New Faculty General Research Fund, \$7,951 (September 2015 – August 2017).

Graduate Student Supervision (as Committee Chair or Co-Chair)

Ph.D.

- U. Neupane, *Mechanically-Spliced High-Strength Steel Bars in Earthquake-Resistant Walls*, Chair (December 2024)
- A. Al-Sabawy, *Headed and High-Strength Shear Reinforcement in Concrete Members*, Chair (May 2020)
- S. Ameen, *Diagonally-Reinforced Concrete Coupling Beams with High-Strength Steel Bars*, Co-Chair (December 2018)
- M. S. Huq, *High-Strength Steel Bars in Earthquake-Resistant T-Shaped Concrete Walls*, Co-Chair (August 2018)
- C. Li, *Composite Action in Prestressed NU I-Girder Bridge Deck Systems Constructed with Bond Breakers to Facilitate Deck Removal*, Chair (August 2017)

M.S. Thesis Option

- A. Adhikari, M.S. - Thesis Option, *Retrofitting of Concrete Dam Lift Joints Subjected to Shear*, Chair (ongoing)
- E. Artzer, M.S. - Thesis Option, *Anchorage of FRP Laminates on Large, Unreinforced Concrete*, Chair (ongoing)
- S. Helfrich, M.S. - Thesis Option, *Interface Shear Strength of Water-Filled Cracks*, Chair (ongoing)
- C. Stewart, M.S. - Thesis Option, *Bond of FRP Laminates on Large, Unreinforced Concrete*, Chair (ongoing)
- G. Friess, *Behavior of Large-Scale Plain Concrete Beams Externally Reinforced with FRP*, Chair (May 2025)
- B. Giri, *Lap Splice Behavior at Elevated Temperatures*, Chair (January 2025)
- U. Neupane, *Behavior of Earthquake-Resistant Reinforced Concrete Column-Foundation Connections*, Chair (September 2024)
- F. Niyonyungu, *Deformation Capacity of Reinforced Concrete Column-to-Foundation Connections with Anchorage/Breakout Failures*, Chair (January 2024)
- B. Adhikari, *Long-term Implications of Redecking Bridges with Prestressed Concrete Girders*, Chair (May 2023)
- G. Valentini, *Compression Lap Splices of Straight Bars and Compression Development of Headed and Hooked Bars in Beam-Column Joints*, Chair (September 2022)
- Y. Aljawad, *Low-Shrinkage Ultra-High-Performance Concrete*, Chair (June 2022)
- R. Rulon, *Lap Splicing of Large High-Strength Steel Reinforcing Bars*, Chair (December 2021)
- T. Mudaliar, *Topology Optimized Reinforced Concrete Walls Constructed with 3D Printed Formwork*, Chair (January 2020)
- W. Tameemi, *Correlations between Compressive, Flexural, and Tensile Behavior of Self-Consolidating Fiber Reinforced Concrete*, Chair (September 2015)

M.S. Project Option

- A. Poudel, *Diagonally-Reinforced Concrete Coupling Beams: Effects of Axial Restraint*, Chair (July 2018)

K. Carleton, *Charts for Preliminary Selection of NU Girder Sections Based on Kansas Department of Transportation LRFD Design Guidelines for Prestressed Concrete Beams*, Chair (May 2016)

C. Lomonaco, *Influence of Bar Size on Shear Strength of Reinforced Concrete Beams without Stirrups*, Chair (May 2015)

Postdoctoral Fellows and Visiting Scholars

Md. Kobir Hossain, Ph.D., Postdoctoral researcher (2023-2025)

Juan Sebastián Spinel Penuela, Visiting scholar and doctoral candidate at the Universidad de los Andes in Bogota, Columbia (2023-2024)

Press Coverage

Staff (2023). “KU Engineering Professor Surveys Earthquake Damage in Turkey”, *KU Today*.
<https://news.ku.edu/2023/06/20/ku-engineering-professor-surveys-earthquake-damage-turkey>

Lynch, B., (2023). “KU Researchers Strengthen American Dams, Levees with Technological Innovation”, *KU Today*.
<https://news.ku.edu/2023/03/29/ku-researchers-strengthen-american-dams-and-levees-technological-innovation>

Staff (2023). “KU Engineering Part of \$7.7 million Federal Project to Extend the Life of Old Dams Across the U.S.”, *Lawrence-Journal World*.
<https://www2.ljworld.com/news/ku/2023/mar/29/ku-engineering-part-of-7-7-million-federal-project-to-extend-the-life-of-old-dams-across-the-u-s/>

Lynch, B., (2019). “Rapid-Response Damage Assessment Gives New Insight into Recent Kansas Tornado”, *KU Today*.
<https://news.ku.edu/2019/06/10/rapid-response-damage-assessment-provides-new-insight-recent-kansas-tornado>

Post, N., (2018). “Tests of Concrete Walls with High-Strength Rebar Lay Foundation for Code Change”, *Engineering News-Record*.
<https://www.enr.com/articles/43713-tests-of-concrete-walls-with-high-strength-rebar-lay-foundation-for-code-change>

Post, N., (2010). “Steel Fibers Show Promise as ‘Rebar Decongestants’”, *Engineering News-Record*.
<https://www.enr.com/articles/9704-steel-fibers-show-promise-as-8216-rebar-decongestants-8217>

Teaching

Courses Taught: University of Kansas

CE 310 - Strength of Materials (Eleven semesters, mean evaluation: 4.8/5.0)

CE 461 – Structural Analysis (One semester, mean evaluation: 4.9/5.0)

CE 563 - Design of Reinforced Concrete Structures (Six semesters, mean evaluation: 4.8/5.0)

CE 764 - Advanced Design of Reinforced Concrete Structures (Eight semesters, mean evaluation: 4.8/5.0)

CE 862 - Behavior of Reinforced Concrete Members (Three semesters, mean evaluation: 4.8/5.0)

Courses Taught: University of Wisconsin – Madison

CEE 340 - Structural Analysis I (mean evaluation: 4.5/5.0)

Enrichment Activities

Participant in *Center for Teaching Excellence Best Practices Institute* (2014)

Service

Professional Memberships

American Concrete Institute (ACI) (Member Since 2006, Fellow Since 2023)

American Society of Civil Engineers (ASCE) (Student Member Grade 2003 - 2010, Associate Member Grade 2014 - 2016, Member Grade Since 2016)

Earthquake Engineering Research Institute (EERI) (2014 - 2020)

Precast Concrete Institute (PCI) (Since 2018)

International Professional Service

Member

1st International Symposium on Steel to Concrete Connections (SySCCon2026), Scientific Committee (2026)

fib Task Group 2.5 - Bond and Material Models (2019 - 2024)

ACI Reconnaissance Team for the February 6, 2023, Turkey-Syria Earthquake (2023)

Bond in Concrete 2022, Scientific Committee (2022)

ACI Reconnaissance Team for the September 19, 2017, Central Mexico Earthquake (2017)

National Professional Service

Chair

ACI-ASCE Committee 408 - Bond and Development of Steel Reinforcement (2018 - 2024)

ACI-ASCE Committee 352-Task Group 2 - Beam-Column Joints & Connections (2016 - 2023)

Secretary

ACI-ASCE Committee 408 - Development and Splicing of Deformed Bars (2012 - 2018)

Member

ACI Committee 318 - Structural Concrete Building Code (Since 2025)

ACI Sub-Committee 318-B - Anchorage and Reinforcement (Since 2025)

ACI Sub-Committee 318-E - Section and Member Strength (Since 2025)

ACI Sub-Committee 562-G - Reinforcement and Detailing (Since 2025)

ACI Sub-Committee 445F - Interface Shear (Since 2023)

ACI Committee 133 - Disaster Reconnaissance (Since 2021)

ACI-ASCE Committee 352 - Joints and Connections in Monolithic Concrete Structures (Since 2014)

ACI Sub-Committee 445C - Punching Shear (Since 2014)

ACI-ASCE Committee 408 - Bond and Development of Steel Reinforcement (Since 2012)

ACI Sub-Committee 318-J - Joints and Connections (2014 - 2024)

PCI Prestressing Reinforcement Committee (2019 - 2024)

ACI-ASCE/SEI Committee 90-03 - TAC Subcommittee on ACI/ASCE-SEI Joint Committees.

(2018 - 2024)

ACI-ASCE Committee 352-Task Group 2 - Beam-Column Joints & Connections (2016 - 2023)

ACI-ASCE Committee 352-Task Group 1 - Slab-Column Joints & Connections (2014 - 2023)

ACI Committee on Awards for Papers - Subcommittee SC3 Mete A. Sozen Award for Excellence in Structural Research (Appointed) (2020, 2021, 2023)

StEER Linwood, KS, Tornado Reconnaissance Team (2019)

Associate Member

ACI Committee 445 - Shear and Torsion (Since 2014)

ACI Committee 374 - Performance-Based Seismic Design of Concrete Buildings (Since 2008)

ACI Committee 544 - Fiber-Reinforced Concrete (2014 - 2017)

Session Organizer / Moderator

Co-Moderator of the *Transfer and Development* session, Bond in Concrete (2022)

Co-Moderator of the *Joint FIB/ACI* session, Bond in Concrete (2022)

Moderator of the *Buildings Session*, 66th Annual KU Structural Engineering Conference (2021)

Co-Moderator of *The Intersection of Bond, Development Length, and Anchorage*, Fall ACI Convention (2020)

Co-Moderator of *Recent Findings in High-Strength Steel and Engineered Cementitious Composites (ECC)*, 11th National Conference on Earthquake Engineering (2018)

Co-Organizer of three *Bond in Concrete* sessions at the Spring ACI Convention (2017)

Co-Moderator of *Bond in Concrete – Part 3*, Spring ACI Convention (2017)

Proposal Reviewer

National Science Foundation Division of Civil, Mechanical, and Manufacturing Innovation (CMMI) (2016, 2018, 2020, 2025)

Associate Editor

ACI Structural Journal (Since 2024)

Manuscript Reviewer

ACI Concrete International (2016, 2018)

ACI Special Publications (2013 - 2015, 2019)

ACI Structural Journal (2013 - 2019, 2021, 2023 - 2024)

ACI Technical Activities Council, External Ad-hoc Reviewer (2019 - 2020)

ASCE Journal of Bridge Engineering (2024)

ASCE Journal of Materials Engineering (2015)

ASCE Journal of Structural Engineering (2013 - 2017, 2019 – 2022, 2024)

ASCE Civil Engineering Division (2023 - 2024)

Bulletin of Earthquake Engineering (2024)

Canadian Journal of Civil Engineering (2013, 2014, 2020)

EERI Earthquake Spectra (2017 - 2019)

Engineering Structures (2015 - 2016, 2021)

Journal of Building Engineering (2016, 2020 - 2021)

Oxford University Press; Textbook Chapter Pre-Publication Technical Review (2020)

PCI Journal (2021, 2023 - 2024)

Structural Engineering and Mechanics (2016)

Structural Engineering International (2017)

University Representative

Consortium of Universities for Research in Earthquake Engineering (2014 - 2016)

University Service

President

Faculty Senate (Elected) (2021 - 2022)

Chair

Faculty Senate Executive Committee (Elected) (Ex-Officio) (2021 - 2022)

Member

Open Access Advisory Board (Since 2023)

Faculty Insights User Test Group (2024 - 2025)

Shulenburg Award Committee (2023)

Kansas Board of Regents Council of Faculty Senate Presidents (Elected) (2021 - 2022)

Staff Senate (Ex-Officio) (2021 - 2022)

Staff Senate Executive Committee (Ex-Officio) (2021 - 2022)

University Senate Executive Committee (Elected) (Ex-Officio) (2021 - 2022)

Ad-Hoc Committee: Review of Procedures of the Faculty Rights Board for Hearing Cases
Involving Dismissal of a Tenured Faculty Member (2021 - 2022)

Faculty Rights Board (2020 - 2022)

Faculty Senate (Elected) (2019 - 2022)

University Senate (Elected) (2019 - 2022)

Libraries Committee (2019 - 2022)

Return to Campus Simulation Committee (2020)

School of Engineering Service

Chair

Sabbatical Leave Committee (2024)

Member

CTE Ideas to Action, Task Group on Undergraduate Math Preparation (2024)

Sharp Professorship Selection Committee (2024)

Student Academic Misconduct Hearing Panel (2019, 2022)

Diversity Task Force (2019 - 2021)

Academic Standards Committee (2015 - 2016)

Other

Judge for SELF Program Interview Day (2025)

Instructor at Project Discovery Summer Camp (2015, 2017)

Judge for Graduate Engineering Association Research Competition (2014, 2016)

Civil, Environmental, and Architectural Engineering Department Service

Chair

Search Committee - Teaching Professor (2 positions) (2024 - 2025)

Retention Committee (2022 - 2025)

Sabbatical Leave Committee (2022, 2024)

Search Committee - Teaching Professor/Professor of Practice (2023)

Member

Promotion and Tenure Committee (Committee of the Whole) (Since 2019)

Structural Engineering Conference Planning Committee (Since 2013)

Curriculum Committee (2024 - 2025)

Graduate Program Degree-Level Assessment Task Group (2024)

Graduate Studies Committee (2019 - 2024)

Search Committee - Department Chair (2022)

Diversity and Equity Task Force (2020 - 2021)

Search Committee - Construction Engineering Faculty Member (2019 - 2020)

Student Retention Committee (2013 - 2016)

Search Committee - Laboratory Technician (2016)

Search Committee - Three Structural Engineering Faculty Members (2014 - 2015)

Faculty Advisor

American Society of Civil Engineers Student Chapter (2014 - 2020)

American Concrete Institute Student Chapter (2013 - 2016)

External Member

Annual Internal ABET Review of Geomaterials Group (2016)

Annual Internal ABET Review of Transportation Group (2016)

Reviewer

Peer Teaching Evaluation (Since 2019)

Service Presentations

- Lequesne, R. (2020, February 19). *On Licensure and Ethics*. National Society of Professional Engineers - KU Student Chapter.
- Lequesne, R. (Spring 2016, 2018 - 2020). *F.E. Exam Review, Topic: Strength of Materials*. Civil, Environmental, and Architectural Engineering at the University of Kansas.
- Lequesne, R. (2016, September 13). *Why Structural Engineering?* Architectural Engineering Institute - KU Student Chapter.
- Lequesne, R. (2016, February 17). *Structural Engineering; Why I Enjoy It*. American Concrete Institute - KU Student Chapter.
- Lequesne, R. D. (2014, October). *Introduction to Structural Engineering*. Three lectures for CE 191 – Introduction to Civil Engineering.
- Lequesne, R. (2014, March 31). *Strut-and-Tie Models: AASHTO Specifications vs. ACI Code*. KU CEAE Department Professional Development Series.