ROBERT J. THOMAS, PH.D.

Publications and Presentations

Thesis & Dissertation

1. R.J. Thomas, "Properties and performance of alkali-activated concrete," Ph.D. Dissertation, Clarkson University, Potsdam, NY, May 2016. Proquest Link
2. R.J. Thomas, "Feasibility study of concrete reinforced with fiber-reinforced polymer tubes and rods," M.S. Thesis, Clarkson University, Potsdam, NY, May 2013.

Peer-Reviewed Journal Publications

1. Johnson, G.R., Murray, C.D., Williams, S.G., & Thomas, R.J.. Static and dynamic engineering properties of belitic calcium sulfoaluminate cement concrete. Materials and Structures, 59(5) (2026), 251. https://doi.org/10.1617/s11527-026-03139-9
2. F. Rahman*, R.B. Mohan*, S. Peethamparan & R.J. Thomas, "Freeze-thaw durability of concrete with ground-glass pozzolan," *Journal of Building Engineering* (2026): 116306. https://doi.org/10.1016/j.jobe.2026.116306
3. R.B. Mohan*, S. Peethamparan & R.J. Thomas, "Optimizing high volume cement replacement with binary and ternary blended binders incorporating ground glass pozzolan," *Journal of Materials in Civil Engineering* 38(3) (2026): 04025596. doi.org/10.1061/JMCEE7.MTENG-21629
4. E. Bescher, S. Dolenec, D. Jansen, T. Matschei, C. Murray, J. Paniagua, E. Qoku, A. Telesca, R.J. Thomas & F. Winnefeld, "Opening letter of RILEM TC CSA: Calcium sulfoaluminate-based cement and concrete - critical review and open questions," *RILEM Technical Letters* 10 (2025): 106-118. doi.org/10.21809/rilemtechlett.2025.231
5. M.S. Dawood*, P. Collins, A. Radlińska & R.J. Thomas, "Microstructure and micromechanical properties of lunar regolith simulant based geopolymers," *Journal of Aerospace Engineering* 39(2) (2025): 04025122. doi.org/10.1061/JAEEEZ.ASENG-6302
6. T. Adnan*, E. Bescher & R.J. Thomas, "Time dependence of corrosion resistance in belitic calcium sulfoaluminate cement concrete," *Cement and Concrete Composites* 161 (2025): 106099. doi.org/10.1016/j.cemconcomp.2025.106099
7. T. Adnan* & R.J. Thomas, "The alkali-silica reaction in belitic calcium sulfoaluminate cement concrete," *Construction and Building Materials* 471 (2025): 140726. doi.org/10.1016/j.conbuildmat.2025.140726
8. P.G. Chottemada, A. Mishra, R.J. Thomas & A. Kar, "Evaluation of long-term properties and life cycle assessment of alkali-activated concrete with varying fiber inclusions," *Construction and Building Materials* 431 (2024): 136437. 10.1016/j.conbuildmat.2024.136437
9. P. Collins, R.J. Thomas, & A. Radlinska, "Influence of gravity on the micromechanical properties of portland cement and lunar regolith simulant composites," *Cement and Concrete Research* 172 (2023): 107232. 10.1016/j.cemconres.2023.107232
10. T. Adnan*, A. Kienzle** & R.J. Thomas, "Engineering properties and setting time of belitic calcium sulfoaluminate cement concrete," *Construction and Building Materials* 352 (2022): 128979. 10.1016/j.conbuildmat.2022.128979
11. A. Banei Pour, M.A. Al Sarfin, R.J. Thomas, M. Maguire & A.D. Sorensen, "Laboratory and field evaluation of commercially available rapid repair materials for concrete bridge deck repair," *Journal of Performance of Constructed Facilities* 36(4) (2022): 04022031. 10.1061/(ASCE)CF.1943-5509.0001736
12. M.K. Shwani, R.J. Thomas & M. Maguire, "Coating effects on ductility of welded wire reinforcement," *Journal of Materials in Civil Engineering* 33(12) (2021): 04021362. 10.1061/(ASCE)MT.1943-5533.0003996

**Denotes my graduate students*
***Denotes undergraduates*

13. N. Marksosian, R. Tawadrous, M. Mastali, R.J. Thomas & M. Maguire, “Performance evaluation of a prestressed belitic calcium sulfoaluminate cement (BCSA) concrete bridge girder,” *Sustainability* 13 (2021): 7875. 10.3390/su13147875
14. A.D. Sorensen, R.J. Thomas, R.N. Langford & M.A. Al-Sarfin, “Damage accumulation comparison of fiber-reinforced concrete using repeated drop impact testing,” *ACI Special Publication* 347 (2021): 127-137.
15. K. Jensen, S.A. Al-Rubaye, R.J. Thomas & M. Maguire, “Mechanics-based model for elastic bending, axial, thermal deformations, and asymmetry of concrete composite sandwich wall panels,” *Structures* 23 (2020): 459-471. 10.1016/j.istruc.2019.11.004
16. S. Dorafshan, R.J. Thomas, C. Coopmans & M. Maguire, “A Practitioner’s guide to small unmanned aerial systems for bridge inspection,” *Infrastructures* 4(4) (2019): 72. 10.3390/infrastructures4040072
17. R. Rahnavard & R.J. Thomas, “Numerical evaluation of steel-rubber isolator with single and multiple rubber cores,” *Engineering Structures* 198 (2019): 109532. 10.1016/j.engstruct.2019.109532
18. S. Al-Rubaye, T. Sorensen, R.J. Thomas & M. Maguire, “Generalized beam-spring model for partially composite concrete sandwich wall panels,” *Engineering Structures* 198 (2019): 109533. 10.1016/j.engstruct.2019.109533
19. Z. Li, R.J. Thomas & S. Peethamparan, “Alkali-silica reactivity of alkali-activated concrete subjected to ASTM C1293 and 1567 alkali-silica reactivity tests,” *Cement and Concrete Research* 123 (2019): 105796. 10.1016/j.cemconres.2019.105796
20. R.J. Thomas, A.D. Sorensen & M. Maguire, “Analytical models for three-dimensional diffusion of ions from salt-contaminated aggregates,” *Advances in Civil Engineering Materials* 8(2) (2019): 19. 10.1520/ACEM20180137
21. S. Dorafshan, R.J. Thomas & M. Maguire, “Benchmarking image processing algorithms for UAS-assisted crack detection in concrete structures,” *Infrastructures* 4(2) (2019): 19. 10.3390/infrastructures4020019
22. M. Naghavi, R. Rahnavard*, R.J. Thomas & M. Malekinejad,” Numerical evaluation of the hysteretic behavior of concentrically braced frames and buckling restrained brace frame systems,” *Journal of Building Engineering* 22 (2019): 415-428. 10.1016/j.jobe.2018.12.023
23. R. Rahnavard* & R.J. Thomas, “Numerical evaluation of the effects of fire on steel connections; Part II: Analysis results,” *Case Studies in Thermal Engineering* 13 (2019): 100361. 10.1016/j.csite.2018.11.012
24. S. Dorafshan, R.J. Thomas & M. Maguire, “SDNET2018: An annotated image dataset for non-contact concrete crack detection,” *Data in Brief* 21 (2018): 1664-1668. 10.1016/j.dib.2018.11.015
25. S. Dorafshan, R.J. Thomas & M. Maguire, “Comparison of deep convolutional neural networks and edge detectors for image-based crack detection in concrete,” *Construction and Building Materials* 186 (2018): 1031-1045. 10.1016/j.conbuildmat.2018.08.011
26. I. Quezada*, R.J. Thomas & M. Maguire, “Internal curing to mitigate cracking in rapid set pavement repair media,” *Advances in Civil Engineering Materials* 7(4) (2018): 660-674. 10.1520/ACEM20170140
27. S. Dorafshan, R.J. Thomas & M. Maguire, “Fatigue crack detection using unmanned aerial systems in fracture critical inspection of steel bridges,” *Journal of Bridge Engineering* 23(10) (2018): 04018078. 10.1061/(ASCE)BE.1943-5592.0001291
28. T. Sorensen, R.J. Thomas, S. Dorafshan & M. Maguire, “Thermal bridging in concrete sandwich walls,” *Concrete International* 40(10) (2018): 45-49.

**Denotes my graduate students*
***Denotes undergraduates*

29. R. Rahnavard* & R.J. Thomas, “Numerical evaluation of the effects of fire on steel connections; Part I: Simulation techniques,” *Case Studies in Thermal Engineering* 12 (2018): 445-453. 10.1016/j.csite.2018.06.003
30. R.J. Thomas, K. Steel & A.D. Sorensen, “Reliability analysis of circular reinforced concrete columns subject to sequential vehicular impact and blast loading,” *Engineering Structures* 168 (2018): 838-851. 10.1016/j.engstruct.2018.04.099
31. R.J. Thomas, B.S. Gebregziabiher, A. Giffin & S. Peethamparan, “Micromechanical properties of alkali-activated GGBFS binders,” *Cement and Concrete Composites* 90 (2018): 241-256. DOI: 10.1016/j.cemconcomp.2018.04.003
32. R.J. Thomas, A.J. Fellows & A.D. Sorensen, “Durability analysis of recycled asphalt pavement as partial coarse aggregate replacement in a high-strength concrete mixture,” *Journal of Materials in Civil Engineering* 30(5) (2018): 04018061. DOI: 10.1061/(ASCE)MT.1943-5533.0002262
33. R.J. Thomas, M. Maguire, A.D. Sorensen & I. Quezada, “Calcium sulfoaluminate (CSA) cement: Benefits and applications,” *Concrete International* 40(4) (2018): 65-69.
34. R.J. Thomas & A.D. Sorensen, “Charpy impact test methods for cementitious composites; Review and commentary,” *Journal of Testing and Evaluation* 46 (6) (2018): 1-9. DOI: 10.1520/JTE20170057
35. R.J. Thomas, E. Ariyachandra, D. Lezama** & S. Peethamparan, “Comparison of chloride permeability measurements for alkali-activated concrete,” *Construction and Building Materials* 165 (2018): 104-111. DOI: 10.1016/j.conbuildmat.2018.01.016
36. R.J. Thomas & A.D. Sorensen, “Review of strain rate effects for UHPC in tension,” *Construction and Building Materials* 153 (2017): 846-856. DOI: 10.1016/j.conbuildmat.2017.07.168
37. R.J. Thomas & S. Peethamparan, “Stepwise regression modeling for compressive strength of alkali-activated concrete,” *Construction and Building Materials* 141 (2017): 315-324. DOI: 10.1016/j.conbuildmat.2017.03.006
38. R.J. Thomas & S. Peethamparan, “Effect of specimen size and curing condition on compressive strength of alkali-activated concrete,” *Transportation Research Record* 2629 (2017): 9-14. DOI: 10.3141/2629-02
39. R.J. Thomas, D. Lezama** & S. Peethamparan, “On drying shrinkage in alkali-activated concrete: Improving dimensional stability by aging or heat-curing,” *Cement and Concrete Research* 91 (2017): 13-23. DOI: 10.1016/j.cemconres.2016.10.003
40. B.S. Gebregziabiher, R.J. Thomas & S. Peethamparan, “Temperature and activator effect on early-age reaction kinetics of alkali-activated slag binders,” *Construction and Building Materials* 113 (2016): 783-793. DOI: 10.1016/j.conbuildmat.2016.03.098
41. R.J. Thomas, H. Ye, A. Radlińska & S. Peethamparan, “Alkali-activated slag cement concrete: A closer look at a sustainable alternative to portland cement,” *Concrete International* 28(1) (2016): 33-38.
42. R.J. Thomas & S. Peethamparan, “Alkali-activated concrete: Engineering properties and stress-strain behavior,” *Construction and Building Materials* 93 (2015): 49-56. DOI: 10.1016/j.conbuildmat.2015.04.039
43. R.J. Thomas & S. Peethamparan, “Reinforcement of hollow concrete beams with FRP bars made from recycled materials,” *ACI Special Publication* 303 (2015): 311-322.
44. B.S. Gebreziabiher, R.J. Thomas & S. Peethamparan, “Very-early-age reaction kinetics and microstructural development in alkali-activated slag,” *Cement and Concrete Composites* 55 (2015): 91-102. DOI: 10.1016/j.cemconcomp.2014.09.001

**Denotes my graduate students*
***Denotes undergraduates*

Peer-Reviewed Conference Proceedings

1. W. Ahmad*, M.S. Dawood*, P.J. Collins, A. Radlinska & R.J. Thomas, “Effect of concrete exposure in low Earth orbit,” in *Proceedings of the 2026 Earth & Space Conference*, College Station, TX, April 13-16, 2026.
2. S. Paudel, R.J. Thomas & S. Banerji, “Performance of concrete with ground glass pozzolan as partial cement replacement,” in *Proceedings of the 10th International Conference on Concrete Under Severe Conditions (CONSEC24)*, Chennai, India, September 2024.
3. M. Nazari, R.J. Thomas & S. Banerji, “Developing and characterizing self-crack-healing Roman concrete for bridge deck applications,” in *Proceedings of the 10th International Conference on Concrete Under Severe Conditions (CONSEC24)*, Chennai, India, September 2024.
4. S. Dawood*, P.J. Collins, A. Radlinska & R.J. Thomas, “Micromechanical and microstructural analysis of lunar concrete,” in *Proceedings of the 2024 ASCE Earth & Space Conference*, Miami, FL, April 2024.
5. A. Banei Pour, R.J. Thomas, M. Maguire & A.D. Sorensen, “Qualifying commercial rapid repair media for partial depth bridge deck repairs in Utah,” in *99th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, January 2020.
6. S. Dorafshan, R.J. Thomas, C. Coopmans & M. Maguire, “Deep learning neural networks for sUAS-assisted structural inspections: Feasibility and applications,” in *2018 International Conference on Unmanned Aircraft Systems (ICUAS)*, Dallas, TX, June 2018.
7. R.J. Thomas, C. Bedke & A.D. Sorensen, “Dynamic shear energy absorption of ultra-high-performance concrete,” in *19th International Conference of Cement, Concrete, and Construction Technology (ICCCT)*, Miami, FL, March 2017.
8. R.J. Thomas & S. Peethamparan, “Effect of specimen size and curing condition on the compressive strength of alkali-activated concrete,” in *96th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, January 2017.
9. Z. Li, R.J. Thomas, D. Lezama** & S. Peethamparan, “Evaluation of ASTM methods for detection of alkali-silica reaction in alkali-activated concrete,” in: *96th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, January 2017.
10. R.J. Thomas & S. Peethamparan,” Modified test for chloride permeability of alkali-activated concrete,” in: *95th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, January 2016.
11. R.J. Thomas & S. Peethamparan, “Reinforcement of hollow concrete beams with FRP bars made from recycled materials,” in: *13th International Conference on Advances in Concrete Technology and Sustainability Issues*, Ottawa, ON, July 2015.
12. R.J. Thomas & S. Peethamparan, “Elastic modulus and Poisson’s ratio of alkali-activated cement-free concrete,” in: *94th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, January 2015.
13. R.J. Thomas, A. Howe** & S. Peethamparan, “Alkali-activated cement-free concrete: Development of practical mixtures for construction,” in: *93rd Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, January 2014.

**Denotes my graduate students*
***Denotes undergraduates*

Invited Seminars, Lectures, and Talks

1. “Early set, evolving durability: Time-dependent performance of calcium sulfoaluminate cement,” New York Construction Materials Association Spring Conference, Troy, NY, March 19, 2026.
2. “Progress toward specifying alternative cements for concrete,” New York State Green Building Conference, Syracuse, NY, March 5-6, 2026.
3. “Alternative (special) cements and pathways to utilization,” Joint webinar with ACI Eastern New York and ACI Western New York chapters, February 18, 2026.
4. “Early career tips for building your career,” Early Career Proposal Writing Bootcamp, Clarkson University, Potsdam, NY, June 4, 2025.
5. “Space concrete: The final frontier,” Center for Advanced Materials Processing (CAMP) Annual Technical Meeting, Geneva, NY, May 15, 2025.
6. “The rapid-set paradox: Reconciling early and later-age properties of sulfoaluminate cements,” Civil Engineering Seminar Series, Cornell University, Ithaca, NY, October 28, 2024.
7. “Space concrete: The final frontier,” Civil Engineering Seminar Series, USEK Lebanon (webinar), September 23, 2024.
8. “The evolution of microstructure and micromechanical properties in belitic calcium sulfoaluminate cement,” Civil Engineering Seminar Series, University of Arkansas, Fayetteville, AR, March 14, 2024.
9. “Space concrete: The final frontier,” RILEM Youth Council Webinar Series, February 2, 2024.
10. “Advancing concrete to the Moon and beyond,” American Concrete Institute (ACI) Student Awards Program, Boston, MA, October 30, 2023.
11. “Rapid-strength prestressed concrete: A case study,” Civil Engineering Seminar Series, BITS Pilani Hyderabad Campus, Telangana, India, August 17, 2023.
12. “Low-carbon concrete: Just like regular concrete, but cooler,” C&S Companies (webinar), May 18, 2023.
13. “Emerging trends for low-carbon concrete,” New York Construction Materials Association (NY Materials) Spring Conference, Troy, NY, March 7, 2023.
14. “Breaking down barriers to low-carbon concrete,” 35th Annual Association of General Contractors of New York State (AGC NYS) Industry Conference, Saratoga Springs, NY, December 7, 2022.
15. “A holistic approach to sustainability in the concrete industry,” Syracuse University, Syracuse, NY, June 2, 2022.
16. “Low-carbon concrete: A toolbox approach,” Center for Advanced Materials Processing (CAMP) Annual Technical Meeting, Clayton, NY, May 25-26, 2022.
17. “IGNITE: Sustainable infrastructure and materials,” Ignite Speaker Series, Clarkson University, Potsdam, NY, September 9, 2020.
18. “What I wish I knew about academia and the concrete industry,” ACI Committee S806 (webinar), July 17, 2020.
19. “Roman concrete: Unlocking the secrets of a thousand-year service life,” American Society of Civil Engineers (ASCE) Student Chapter, Clarkson University, November 20, 2019.
20. “What’s so interesting about concrete?” Civil & Environmental Engineering Seminar Series, Clarkson University, Potsdam, NY, September 17, 2018.
21. “Rapid concrete pavement repair,” Utah Department of Transportation (UDOT), Salt Lake City, UT, May 15, 2018.
22. “Concrete electrical resistivity as a performance-based test,” Utah Department of Transportation (UDOT), Salt Lake City, UT, May 15, 2018.
23. “Concrete for the future: Emerging materials and engineering challenges,” Clarkson University, Potsdam, NY, April 19, 2018.
24. “Structural materials for the modern world,” Ohio Northern University, Ada, OH, February 2, 2018.

**Denotes my graduate students*
***Denotes undergraduates*

25. “Opportunities, challenges, and experiences in concrete research,” Idaho State University, Pocatello, ID, March 15, 2017.
26. “Toward sustainable construction materials: A practical look at the development and characterization of cement-free concrete,” Civil & Environmental Engineering Seminar Series, Clarkson University, Potsdam, NY, January 19, 2016.

Conference Presentations (Oral)

The presenter’s name is underlined.

1. W. Ahmad*, M.S. Dawood*, P.J. Collins, A. Radlinska & R.J. Thomas, “Effect of concrete exposure in low Earth orbit,” 2026 ASCE Earth & Space Conference, College Station, TX, April 13-16, 2026.
2. M. Al-Sharah*, O. Ameden*, S. Ashraf*, R.B. Mohan* & R.J. Thomas, “Time dependence of mass transport properties in belitic calcium sulfoaluminate cement concrete,” Spring 2026 ACI Concrete Convention, Chicago, IL, March 29-April 1, 2026.
3. R.B. Mohan*, S. Peethamparan & R.J. Thomas, “Can standard reactivity tests predict later-age compressive strength?” Fall 2025 ACI Concrete Convention, Baltimore, MD, October 26-29, 2025.
4. R.J. Thomas, O. Ameden* & T. Adnan*, “Time Dependence of Chloride Transport Properties and Corrosion Resistance in BCSA Cement Composites,” 3rd International Workshop on Calcium Sulfoaluminate Cements (CSA2025), Leeds, UK, June 23-25, 2025.
5. M.S. Dawood*, P.J. Collins, A. Radlińska & R.J. Thomas, “Micromechanical and microstructural analysis of lunar concrete,” 2024 ASCE Earth & Space Conference, Miami, FL, April 16, 2024.
6. M.S. Dawood* & R.J. Thomas, “Micromechanical and microstructural analysis of lunar concrete,” Fall 2023 ACI Concrete Convention, Boston, MA, October 29 - November 1, 2023.
7. T. Adnan* & R.J. Thomas, “Measurement and characterization of chloride transport properties in belitic calcium sulfoaluminate cement concrete,” Fall 2023 ACI Concrete Convention, Boston, MA, October 29-November 1, 2023.
8. R.J. Thomas, “The alkali-silica reaction in belitic calcium sulfoaluminate cement,” First Annual CSA Cement Seminar, University of California Los Angeles, Los Angeles, CA, June 21-22, 2023.
9. A. Kienzle** & R.J. Thomas, “Monitoring pH in BCSA cements,” Spring 2023 ACI Concrete Convention, San Francisco, CA, April 2-5, 2023.
10. T. Adnan* & R.J. Thomas, “Rational methods for evaluating chloride penetrability of BCSA cement composites,” Spring 2023 ACI Concrete Convention, San Francisco, CA, April 2-5, 2023.
11. R.J. Thomas, “Fresh and hardened properties of ultra-high-performance concrete,” Spring 2023 ACI Concrete Convention, San Francisco, CA, April 2-5, 2023.
12. R.J. Thomas, “Low-carbon materials and the concrete building code,” 21st Annual New York State Green Building Conference, Syracuse, NY, March 2-3, 2023.
13. T. Adnan* & R.J. Thomas, “Alkali-silica reactivity of belitic calcium sulfoaluminate cement,” Fall 2022 ACI Concrete Convention, Dallas, TX, October 23-26, 2022.
14. A. Kienzle** & R.J. Thomas, “Solidification behavior of BCSA cement,” Spring 2022 ACI Concrete Convention, Orlando, FL, March 27-31, 2022.
15. T. Adnan* & R.J. Thomas, “Mechanical properties of belitic calcium sulfoaluminate cement concrete,” Fall 2021 Virtual ACI Concrete Convention, October 17-21, 2021.
16. T. Adnan* & R.J. Thomas, “Estimation of mechanical properties for BCSA concrete,” Clarkson University Research and Projects Showcase, Potsdam, NY, April 19-23, 2021.
17. R.N. Langford**, A.D. Sorensen & R.J. Thomas, “Damage accumulation of fiber-reinforced concrete using repeated drop impact testing,” Spring 2021 Virtual ACI Concrete Convention, March 28-April 1, 2021.
18. R.N. Langford**, A.D. Sorensen & R.J. Thomas, “Modeling damage accumulation of

**Denotes my graduate students*

***Denotes undergraduates*

fiber-reinforced concrete using repeated impact testing," National Council on Undergraduate Research, Kennesaw, GA, April 9-13, 2019.

19. Z. Li, R.J. Thomas & S. Peethamparan, "Alkali-silica reactivity of alkali-activated concrete," Spring 2019 ACI Concrete Convention, Quebec City, QC, March 24-28, 2019.
20. R.N. Langford**, A.D. Sorensen & R.J. Thomas, "Modeling damage accumulation of fiber-reinforced concrete using repeated impact testing," Spring 2019 ACI Concrete Convention, Quebec City, QC, March 24-28, 2019.
21. M.A. Al Sarfin, P. Collins**, R.J. Thomas & A.D. Sorensen, "Strain rate sensitivity and behavior of ultra-high-performance concrete under high-frequency shear loading," Fall 2018 ACI Concrete Convention, Las Vegas, NV, October 14-18, 2018.
22. R.J. Thomas & A.D. Sorensen, "Dynamic increase factors for UHPC," Spring 2018 ACI Concrete Convention, Salt Lake City, UT, March 25-29, 2018.
23. P. Collins**, R.J. Thomas & A.D. Sorensen, "High strain rate shear behavior of ultra-high-performance concrete," Spring 2018 ACI Concrete Convention, Salt Lake City, UT, March 25-29, 2018.
24. R.J. Thomas, M. Maguire & A.D. Sorensen, "Modifying concrete mixture proportions to minimize thermal deformations," Fall 2017 ACI Concrete Convention, Anaheim, CA, October 15-19, 2017.
25. R.J. Thomas & A.D. Sorensen, "Dynamic shear energy absorption of ultra-high-performance concrete," 2017 Intelligence Community Academic Research Symposium (ICARS), Washington, DC, September 28, 2017.
26. R.J. Thomas, C. Bedke & A.D. Sorensen, "Dynamic shear energy absorption of ultra-high-performance concrete," 19th International Conference on Cement, Concrete and Construction Technology, Miami, FL, March 9-10, 2017. **Awarded best in session.**
27. R.J. Thomas & S. Peethamparan, "Modified test methods for evaluating the chloride penetrability of alkali-activated concrete," Fall 2016 ACI Concrete Convention, Philadelphia, PA, October 23-27, 2016.
28. Z. Li, R.J. Thomas & S. Peethamparan, "Alkali-silica reaction susceptibility of alkali-activated cement-free binders," Fall 2016 ACI Concrete Convention, Philadelphia, PA, October 23-27, 2016.
29. S. Peethamparan, R.J. Thomas & Z. Li, "Long-term durability of alkali-activated concrete," 3rd Biennial Workshop on Alkali-Aggregate Reaction and Alternative Cementitious Materials, McLean, VA, September 8, 2016.
30. R.J. Thomas & S. Peethamparan, "Mechanical properties of alkali-activated slag binders: From microscale to macroscale," Fall 2015 ACI Concrete Convention, Denver, CO, November 8-12, 2015.
31. R.J. Thomas & S. Peethamparan, "Reinforcement of hollow concrete beams with FRP bars made from recycled materials," 13th International Conference on Advances in Concrete Technology and Sustainability Issues, Ottawa, ON, July 14-17, 2015.
32. R.J. Thomas & S. Peethamparan, "Engineering properties of alkali-activated cement-free concrete," Inaugural Clarkson University Graduate Research Symposium, Potsdam, NY September 29, 2014.
33. A. Howe**, R.J. Thomas & S. Peethamparan, "Compressive strength and workability of alkali-activated cement-free concrete," 16th Annual Clarkson University Symposium for Undergraduate Research (SURE), Potsdam, NY, August 1, 2013.

**Denotes my graduate students*
***Denotes undergraduates*

Conference Presentations (Posters)

The presenter's name is underlined.

1. W. Ahmad*, M. Al-Sharah*, S. Ashraf*, A. Kanyere*, R.B. Mohan* & R.J. Thomas, "Concrete solutions for the next generation of civil infrastructure," New York State Green Building Conference, Syracuse, NY, March 5-6, 2026.
2. R.B. Mohan*, S. Peethamparan & R.J. Thomas, "Chloride penetrability of high-volume binary and ternary blended ground-glass pozzolan concrete," Center for Advanced Materials Processing (CAMP) Annual Research Symposium, Geneva, NY, May 14-15, 2025.
3. R.B. Mohan*, S. Peethamparan & R.J. Thomas, "Mechanical properties and durability of ternary cementitious blends with ground-glass pozzolans," Center for Advanced Materials Processing (CAMP) Annual Research Symposium, Clayton, NY, 2024-05-22.
4. R.B. Mohan*, S. Peethamparan & R.J. Thomas, "Optimizing pozzolanic reactivity of binary and ternary cementitious blends with high-volume glass powder pozzolans," Fall 2023 ACI Concrete Convention, Boston, MA, 2023-10-30.
5. S. Dawood* & R.J. Thomas, "Micromechanical properties of lunar concrete," Center for Advanced Materials Processing (CAMP) Annual Research Symposium, Corning, NY, 2023-05-31.
6. T. Adnan* and R.J. Thomas, "Engineering properties and durability of belitic calcium sulfoaluminate cement and concrete," CAMP Annual Research Symposium, Corning, NY, 2023-05-31.
7. R.B. Mohan*, S. Peethamparan, and R.J. Thomas, "Low-carbon concrete with high-volume glass powder pozzolan," CAMP Annual Research Symposium, Corning, NY, 2023-05-31.
8. C. McAfee**, C. Scala**, and R.J. Thomas, "Analysis of carbon sequestration in belitic calcium sulfoaluminate cement," Clarkson University Research and Projects Showcase, Potsdam, NY, 2022-04-22.
9. L. Penet** and R.J. Thomas, "Image analysis of concrete air voids," Clarkson University Research and Projects Showcase, Potsdam, NY, 2022-04-22. **Best in session.**
10. A. Kienzle** and R.J. Thomas, "Influence of citric acid and water/cement ratio on setting time of BCSA cement," Clarkson University Research and Projects Showcase, Potsdam, NY, 2021-04-19. **Best in session.**
11. J. O'Dell**, C. Hefele**, J. Dibble**, J. Jarosz**, and R.J. Thomas, "Design of a pneumatic gripper for an impact drop tower," Clarkson University Research and Projects Showcase, Potsdam, NY, 2021-04-19.
12. Z. Flick**, H. Hardy**, M. Darling**, and R.J. Thomas, "Design and construction of an automated drop weight impact tower," Clarkson University Research and Projects Showcase, Potsdam, NY, 2020-04-25.
13. T. Adnan*, M. Schick**, and R.J. Thomas, "Modified composite freeze/thaw test for durability of concrete repairs," Research and Projects Showcase (RAPS), Potsdam, NY, 2020-04-25.
14. L. Richardson** and R.J. Thomas, "Analyzing air void system in solid concrete with a flatbed scanner," Clarkson University Research and Projects Showcase, Potsdam, NY, 2020-04-25.
15. R.N. Langford**, R.J. Thomas, and A.D. Sorensen, "Modeling damage accumulation in fiber-reinforced concrete using repeated impact testing," Fall 2018 ACI Concrete Convention, Las Vegas, NV, 2018-10-15.
16. R.J. Thomas and S. Peethamparan, "Effect of specimen size and curing condition on the compressive strength of alkali-activated concrete," in *96th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, 2017-01-10.
17. Z. Li, R.J. Thomas, D. Lezama**, and S. Peethamparan, "Evaluation of ASTM methods for detection of alkali-silica reaction in alkali-activated concrete," in: *96th Annual Meeting of the Transportation Research Board (TRB)*, Washington, DC, 2017-01-10.

**Denotes my graduate students*

***Denotes undergraduates*

18. R.J. Thomas and A.D. Sorensen, “Characterization of ultra-high-performance concrete under high-frequency direct shear,” 2016 Intelligence Community Academic Research Symposium (ICARS), Washington, DC, 2016-09-20.
19. R.J. Thomas and S. Peethamparan, “Modified test for chloride permeability of alkali-activated concrete,” Clarkson University Institute for a Sustainable Environment (ISE) Annual Poster Session, Potsdam, NY, 2016-02-04.
20. R.J. Thomas and S. Peethamparan, “Modified test for chloride permeability of alkali-activated concrete,” 95th Annual Meeting of the Transportation Research Board, Washington, DC, 2016-01-12.
21. D. Lezama**, R.J. Thomas, and S. Peethamparan, “Alkali-silica reactivity of alkali-activated concrete,” 18th Annual Clarkson University Symposium for Undergraduate Research (SURE), Potsdam, NY, 2015-07-30.
22. R.J. Thomas, A. Giffin, and S. Peethamparan, “Gaussian mixture modeling for micromechanical properties of cementitious composites,” 35 International Workshop of Bayesian Inference and Maximum Entropy Methods in Science and Engineering (MaxEnt), Potsdam, NY, 2015-07-20.
23. R.J. Thomas and S. Peethamparan, “Sustainable concrete: Development and characterization,” Clarkson University Institute for a Sustainable Environment (ISE) Annual Poster Session, Potsdam, NY, 2015-02-26.
24. R.J. Thomas and S. Peethamparan, “Elastic modulus and Poisson’s ratio of alkali-activated cement-free concrete,” 94th Annual Meeting of the Transportation Research Board, Washington, DC, 2015-01-13.
25. R.J. Thomas, A. Howe**, and S. Peethamparan, “Alkali-activated cement-free concrete: Development of practical mixtures for construction,” 93rd Annual Meeting of the Transportation Research Board, Washington, DC, 2014-01-14.
26. R.J. Thomas and S. Peethamparan, “Properties and performance of alkali-activated concrete,” Annual Technical Meeting of the Clarkson University Center for Advanced Materials Processing (CAMP), Saratoga Springs, NY, 2013-05-10.
27. R. Ruiz**, R.J. Thomas, and S. Peethamparan, “Stress and strain behavior of alkali-activated concrete,” 15th Annual Clarkson University Symposium for Undergraduate Research (SURE), Potsdam, NY, 2012-08-02.
28. R.J. Thomas and S. Peethamparan, “Feasibility of reinforcing hollow concrete beams with FRP tubes and bars,” Annual Technical Meeting of the Clarkson University Center for Advanced Materials Processing (CAMP), Saratoga Springs, NY, 2012-05-12.

**Denotes my graduate students*
***Denotes undergraduates*