

# Dhaval R. Gajjar, PhD, FMP, SFP

Associate Professor  
CSM Endowed Professor

Nieri Department of Construction and Real Estate Development  
College of Architecture, Art and Construction  
dgajjar@clemson.edu

## EDUCATION

2016	Ph.D.	Construction Management	Arizona State University - Tempe
2013	M.S.	Construction Management	Arizona State University - Tempe
2011	B.S.	Biochemistry	Arizona State University - Tempe

## ACADEMIC POSITIONS

2024 – Current	<b>Associate Professor</b> Nieri Department of Construction, Development and Planning College of Architecture, Arts and Humanities Clemson University
2024 – Current	<b>Associate Department Chair</b> Nieri Department of Construction, Development and Planning College of Architecture, Arts and Humanities Clemson University
2022 – 2024	<b>Director of Undergraduate Programs</b> Nieri Department of Construction, Development and Planning College of Architecture, Arts and Humanities Clemson University
2018 – 2024	<b>Assistant Professor</b> Nieri Department of Construction, Development and Planning College of Architecture, Arts and Humanities Clemson University
2014 – 2016	<b>Teaching Assistant</b> Del E. Webb School of Construction Ira A. Fulton Schools of Engineering Arizona State University
2011 – 2016	<b>Research Assistant</b> (Chair: Dr. Dean Kashiwagi / Dr. Kenneth Sullivan) Del E. Webb School of Construction Ira A. Fulton Schools of Engineering Arizona State University - Tempe

## INDUSTRY EXPERIENCE

2017 – 2018	<p><b>Project Manager</b>  <i>TEPCON Construction, Tempe, AZ</i>                      Oversight and leadership for renovation projects, sub-contractor contracts, manage superintendents, estimate, scheduling, drawings, owner / client management.</p>
2016 – 2017	<p><b>Construction Manager (Owner Rep)</b>  <i>Harkins Theatres, Scottsdale, AZ</i>                      Oversight and leadership for renovation projects in the US, AEC coordination, budget &amp; feasibility studies, bid qualification, drawings, pre-construction.</p>
2015 – 2016	<p><b>Assistant Project Manager</b>  <i>TEPCON Construction, Tempe AZ</i>                      Sub-contractor coordination, submittals and RFI's, review project scope, qualify sub-contractors.</p>
2014 – 2016	<p><b>Roof Inspector</b>  <i>KSM Inc., Mesa, AZ</i>                      Conduct visual roof inspections to document roof performance.</p>
2007 – 2011	<p><b>Data Manager</b>  <i>Arizona State University, Tempe, AZ</i>                      Manage research data and conduct analysis for construction project performance.</p>

## CERTIFICATIONS & LICENSURES

2015-Present	<p><b>Sustainability Facility Professional</b>                      International Facility Management Association (IFMA)</p>
2014-Present	<p><b>Facility Management Professional</b>                      International Facility Management Association (IFMA)</p>

## PUBLICATIONS

### SUMMARY OF PUBLICATIONS

Total Journal Publications (Published, In Press, and /or Accepted):	<b>32</b>
<u>Journal Publications (Published, In Press, and /or Accepted) from CU:</u>	<b>24</b>
Total Referred Conference Proceedings (Published, In Press, and / or Accepted):	<b>27</b>
<u>Refereed Conference Proceedings (Published, In Press, and / or Accepted) from CU:</u>	<b>15</b>

**LEGEND:**

Underline = PhD Student at time of research/authoring

*Italics* = Master's Student at time of research/authoring

Asterisk\* = indicates corresponding author

**JOURNAL PAPERS**

**Published / Accepted**

[J32] *Bharadwaj, B.*, Lucas, J.\* , Sharma, V., **Gajjar, D.**, Wagle, P. "Identifying Influencing Factors of Gen Z Students to Pursue a Career in Construction." *ASCE Journal of Civil Engineering Education*. TBD.

[J31] Magxaka, M\*, Lucas, J., **Gajjar, D.** (2024) "Evaluating Project Close-Out for Sheet Metal and Mechanical Contractors through a Comparative Analysis ." *The Professional Constructor Journal of the American Institute of Constructors (AIC)*, 150(10), 49(2), 24-41.

[J30] Sharma, V\* , *Bapat, P.*, Garg, S., DeGezelle, D., **Gajjar, D.** (2024)"Critical Project Impact Factors for Federal Capital Facility Projects." *Journal of Construction Engineering and Management*, 150(10).  
<https://doi.org/10.1061/JCEMD4.COENG-146>

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ASSOCIATE PROFESSOR

[J29] Sharma, V.\* , *Caldas, C.*, **Gajjar, D.**, *Bapat, P.* (2024) "Development of a Cost Normalization Framework for Healthcare Facilities Cost Elements." *Buildings* 2024, 14(2), 529.  
<https://doi.org/10.3390/buildings14020529>

[J28] Lucas, J.\* , **Gajjar, D.**, *Loadholt, G.*, *Davis, D.* (2023) "Understanding Roofing Distributor Employee Job Perception to address Recruitment and Retention of Workers." *Construction Economics and Building*, 23(3/4). <https://doi.org/10.5130/AJCEB.v23i3/4.8315>

[J27] Sharma, V.\* , **Gajjar D.**, *Bapat, P.*, & Garg, S. (2023) "Knowledge Management: General Contractors vs. Specialty Contractors – An Insight into Culture and Perception in the SE United States." *Journal of the American Institute of Constructors*, 48(1), 6-28.

[J26] **Gajjar, D.\***, Sharma, V., Garg, S., & *Davis, D.* (2023) "Evaluating the Impact of Customer Satisfaction on Region, Season and Temperature for Construction Coating Projects." *Journal of Facility Management Education and Research*, 7(1), 1-16. <https://doi.org/10.22361/jfmer/158572>

[J25] Magxaka, L., **Gajjar, D.\*** & Lucas, J. (2023) "Project Close-Out Process for HVAC Mechanical Contractors: Current Practices." *ASCE Journal of Construction Engineering and Management*, 149(1).  
<https://doi.org/10.1061/JCEMD4.COENG-12394>

[J24] **Gajjar, D.\***. (2022) "Use of Customer Satisfaction to Measure Performance of Systems and Contractors: Post-Occupancy Evaluation (POE) Method." *CIB Journal for the Advancement of Performance Information and Value*, 14(1), 8-18. <https://doi.org/10.37265/japiv.v14i1.137>

[J23] Sharma, V.\* , **Gajjar, D.**, *Madathil, K.*, *Davis, D.*, & *Patel, S.* (2022) "Current State of the Workforce Demographics and Knowledge Transfer Strategies in the Southeast United States." *Journal of the American Institute of Constructors*, 47(1), 6-23.

- [J22] **Gajjar, D.\***, Lucas, J., & *Davis, D.* (2022) "Understanding employee perception to promote management level workforce development for roofing contractors." *International Journal of Construction Education and Research*, 1–18. <https://doi.org/10.1080/15578771.2022.2049663>
- [J21] *Agnisarman, S.\**, Madathil, K. C., Khasawneh, A., Ponathil, A., Lopes, S., Piratla, K., & **Gajjar, D.** (2022) "Sensemaking perspective on infrastructure risk-related mental model development of Windstorm Loss Prevention Engineers." *Journal of Building Engineering*, 52, 1-19. <https://doi.org/10.1016/j.jobe.2022.104314>
- [J20] Sharma, V.\* , Mousavi, E., **Gajjar, D.**, Madathil, K., Smith, C., & *Matos, N.* (2022) "Regulatory framework around data governance and external benchmarking." *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 14(2). [https://doi.org/10.1061/\(asce\)la.1943-4170.0000526](https://doi.org/10.1061/(asce)la.1943-4170.0000526)
- [J19] Stone, B.\* , **Gajjar, D.**, & *Davis, D.* (2021) "Developing a standard workflow for drone roof inspections." *Journal for Facility Management*, 21, 40-55. <https://doi.org/10.34749/jfm.2021.4600>
- [J18] **Gajjar, D.\***, *Anderson, C.*, Sharma, V., Mousavi, E., & Good, W. (2021) "Curriculum Framework Development: A Case Study of Implementing a Construction Management Roofing Course." *Journal for the Advancement of Performance Information and Value*, 13(1), 67. <https://doi.org/10.37265/japiv.v13i1.134>
- [J17] Mousavi, E., **Gajjar, D.\***, Sharma, V., *Patel, S.* (2021) "Use of network analysis to study regional footprint for construction coating applicators." *International Journal of Construction Management*, 1–9. <https://doi.org/10.1080/15623599.2021.1948656>
- [J16] Lucas, J.\* , **Gajjar, D.** (2021) "Influence of virtual reality on student learning in undergraduate construction education. *International Journal of Construction Education and Research*, 1–14. <https://doi.org/10.1080/15578771.2021.1931570>
- [J15] **Gajjar, D.\***, *Anderson, C.* (2021) "Understanding Sub-Contractor Selection Factors in the Building Construction Industry for the Southeast United States." *The Professional Constructor Journal of the American Institute of Constructors (AIC)*, 46(1), 35-47.
- [J14] *Agnisarman, S.\**, Madathil, K.C., Bertrand, J., Piratla, K., **Gajjar, D.**, Gramopadhye, A. (2021) "Context Enabled Decisions Aids to Support the Situation Awareness and Performance of Risk Engineers Carrying Out Loss Prevention Surveys." *International Journal of Industrial Ergonomics*, 83, 1-18.
- [J13] Mousavi, E.\* , Sharma, V., **Gajjar, D.**, *Naini, S.* (2020) "Renovation in Hospitals: A Case Study on the Use of Control Cubes for Local Repairs in Healthcare Facilities." *Journal of Facilities Management*, 18(3), 247-257.
- [J12] **Gajjar, D.\***, Clarke, S., *Anderson, C.* (2020) "Current State of the Employee Assessment Process in the Construction Industry for Southeast United States." *The Professional Constructor Journal of the American Institute of Constructors (AIC)*, 45(1), 34-43.
- [J11] **Gajjar, D.\***, Kashiwagi, I. (2020) "A Performing Manufacturer Mitigates Risk by Using Performance Information Systems." *CIB W117 Journal for the Advancement of Performance Information and Value*, 12(1), 10-20.

[J10] Bonilla, A., **Gajjar, D.\***, Sullivan, K. (2019) "Study of Various Construction Job Functions to Address Workforce Challenge." *Journal of the American Institute Constructors*, 44(1), 6-13.

[J9] **Gajjar, D.\***, Smithwick, J., Sullivan, K. (2018) "Improving Janitorial Contract Performance with Facility Management Performance Scorecards." *Journal of Facility Management Education and Research: 2018*, 2(1), 26-34.

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ASSISTANT PROFESSOR

[J8] Kashiwagi, D., **Zulanas, C.\***, **Gajjar, D.** (2016) "The Cost Effectiveness of Alpha SPF Roofs: Casa View Elementary School Roofing Case Study." *Journal for the Advancement of Performance Information and Value*, 8(2), 42-57.

[J7] **Gajjar, D.\***, Kashiwagi, D., Sullivan, K., Kashiwagi, J. (2016) "Using Satisfaction Ratings to Minimize Risk." *CIB W117 Journal for the Advancement of Performance Information and Value*, 8(2), 92-101.

[J6] Kashiwagi, D., **Gajjar, D.\***, Kashiwagi, J., Sullivan, K. (2016) "Hail Study on a 15-Year-Old Sprayed Polyurethane Foam Roofing System." *CIB W117 Journal for the Advancement of Performance Information & Value*, 7 (1), 5-1 – 5-11

[J5] **Gajjar, D.\***, Kashiwagi, D., Kashiwagi, J., Sullivan, K. (2015) "High Performing Contractor's Use of Performance: Past Customer Satisfaction and Visual Inspections." *International Journal of Facility Management*, 6(2)

[J4] **Gajjar, D.\***, Kashiwagi, J., Kashiwagi, D., Sullivan, K. (2014) "Maintaining the Quality of Constructed Facilities Using the Performance Information Measurement System: A Three-Year Study on SPF Roofing." *International Journal of Facility Management*, 5(2).

[J3] **Gajjar, D.\***, Kashiwagi, D. T., Kashiwagi, J., Sullivan, K. (2014) "Best Value Case Study for Cold Storage Facility in Miami, Florida." *Journal for the Advancement of Performance Information & Value*, 6(1), 53-71.

[J2] **Gajjar, D.\***, Kashiwagi, D., Sullivan, K., Kashiwagi, J. (2013) "Post Occupancy Performance Evaluation of "Time of Installation" Factors — A Seven Year Study of SPF Roofing." *ASCE Journal of Performance of Constructed Facilities*, 29(2).

[J1] **Gajjar, D.\***, Sullivan, K. T., Kashiwagi, D. (2013) "Post Construction Quality Evaluation- Manufacturer's Use of End User to Minimize Risk." *CIB W117 Journal for the Advancement of Performance Information and Value*, 4 (2), 20-26.

### Under Review

[J1] **Bharadwaj, B.\***, Lucas, J., **Gajjar, D.**, Sharma, V. (2024). "STEM Exposure and Participation During Middle and High School of Gen Z Students Enrolled in Construction-Related Programs." *International Journal of Construction Education and Research*.

[J2] **Wagle, P.\***, **Gajjar, D.**, Lucas, J. (2024). "Current State of Sustainability and Resiliency Across Supply Chain: Systematic Literature Review." *ASCE Journal of Construction Engineering and Management*.

## REFEREED CONFERENCE PAPERS

### Published / Accepted

[C27] Wagle, P., Gajjar, D., Lucas J. (2024) "Resiliency Efforts in Construction Supply Chain: A Systematic Literature Review". 14<sup>th</sup> *International Conference on Construction in the 21<sup>st</sup> Century (CITC-14)*.

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ASSOCIATE PROFESSOR

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[C26] Sharma, V.\*, *Dua, A., Gajjar, D., Sharma, H.* (2023) "Systematic Literature Review on Impact of Low slope vs. Steep Slope Roof Membrane Color on Energy Efficiency." *13<sup>th</sup> International Conference on Construction in the 21<sup>st</sup> Century*.

[C25] Sharma, V.\*, **Gajjar, D.**, Garg, S., Smithwick, J., Dharmapalan, V. (2023) "Ponding and Blisters – Study of SPF roofs". *59th Annual Associated Schools of Construction International Conference, 819-827*.

[C24] Sharma, V.\*, **Gajjar, D.**, Amiri, A., Clarke, S. (2023) "Standards and Certifications for the Basis of Sustainability Claims by Roof Type". *59th Annual Associated Schools of Construction International Conference, 80-88*.

[C23] **Gajjar D.\***, Lucas, J., *Viswanathan, G., Davis D.* (2023) "Understanding Career Opportunities for Construction Graduates within the Roofing Industry Distribution Sector". *59th Annual Associated Schools of Construction International Conference, 653-661*.

[C22] Lucas, J.\*, **Gajjar D.**, Magxaka, M., *Bharadwaj, B.* (2023) "HVAC Mechanical Contractors Framework for Effective Project Close-Out". *59th Annual Associated Schools of Construction International Conference, 527-534*.

[C21] Sharma, V.\*, **Gajjar, D.**, *Bapat, P.* (2022) "Workforce Demographics in Southeast United States: General Contractors vs. Specialty Contractors/Trade Partners." *CIB World Congress 2022*.

[C20] **Gajjar, D.\***, Sharma, V., *Bapat, P.* (2022) "Impact of Construction Coating Products and Warranty Services on Customer Satisfaction." *CIB World Congress 2022*.

[C19] Lucas J.\*, **Gajjar, D.**, *Davis, D., Loadholt, G.* (2022) "Evaluating Various Job Functions To Map a Typical Career Path in the Roofing Industry." *58th Annual Associated Schools of Construction International Conference, 3, 121-129*.

[C18] Anderson, C.\*, **Gajjar, D.** (2021). Cross sectional assessment of CEM curriculum offerings at the pre-college level in North Carolina (evaluation). 2021 ASEE Virtual Annual Conference Content Access Proceedings, 1–18. <https://doi.org/10.18260/1-2--36881>

[C17] **Gajjar, D.\***, Burgett, J. (2020) "Evaluating the Use of Unmanned Aerial Systems (UAS) to Perform Low-Slope Roof Inspections." *56th Annual Associated Schools of Construction International Conference, 1, 214-222*.

[C16] Lucas, J.\*, **Gajjar, D.** (2020) "Effects of Virtual Reality on Student Learning in Materials and Methods Course." *56th Annual Associated Schools of Construction International Conference, 1, 108-115*.

[C15] **Gajjar, D.\***, Anderson, C. (2019) "Various Customer Satisfaction Correlation Factors for Construction Manufacturer." *Associated Schools of Facility Management*, Phoenix, AZ (October 15, 2019), 17-24.

[C14] **Gajjar, D.\***, Sullivan, K. (2019) "Study of Construction Industry Workforce: Measuring Employee Satisfaction for Construction Career Insight." *55<sup>th</sup> ASC Annual International Conference*, University of Denver, Denver, CO (April 10 – 13, 2019), 711-718.

[C13] **Gajjar, D.\***, Sullivan, K. (2018) "Impact of Manufacturer and Job Complexity on the Roofing Quality for Sprayed Polyurethane Roofs." *Associated Schools of Facility Management*, Charlotte, NC. (October 2, 2018).

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ASSISTANT PROFESSOR

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[C12] Kashiwagi, D., **Gajjar, D.**, Zulanas IV, C.\*, Alhammadi, Y. (2017) "The Cost Effectiveness of Alpha SPF Roofs: Casa View Elementary School Roofing Case Study." *53rd Annual International Conference of the Associated Schools of Construction (ASC)*, University of Washington and Washington State University, Seattle, WA (April 5 – 8, 2017), 197-205.

[C11] Kashiwagi, D., **Gajjar, D.\***, Carvalho, L. (2016) "Minimizing Risk through Performance Rather than Warranties." *Proceedings of the CIB World Congress 2016, Volume V*, Tampere University of Technology, Tampere, Finland (May 30 – June 3, 2016), 496–507.

[C10] **Gajjar, D.\***, Sullivan, K., Kashiwagi, D., Lines, B. (2016) "Use of Warranty Tracking Program to Identify and Resolve Performance Risks." *ASCE Construction Research Congress*, San Juan, Puerto Rico (May 31 – June 3, 2016), 2171-2176.

[C9] Corea, R., Kashiwagi, D., **Gajjar, D.\***, Romero, S. (2016) "Use of Best Value Model to Achieve Sustainability: A Case Study on a Semiconductor Manufacturer." *International Conference on Sustainable Design, Engineering and Construction (ICSDEC)*, Arizona State University, Tempe, AZ, *Procedia Engineering*, Volume 145, (May 18-20, 2016), 746-751.

[C8] **Gajjar, D.\***, Sullivan, S., Kashiwagi, J. Mischung, J. (2015) "Use of First Semester Education to Identify and Tackle the Transitional Challenges faced by Indian Graduate Students in the Construction Department." *ASEE Conference 2015*, Seattle, WA, USA (June 14 – 17, 2015).

[C7] **Gajjar, D.\***, Kashiwagi, D., Sullivan, K., Smithwick, J. (2015) "Case Study in the Application of the Project Definition Rating Index and Best Value Procurement System to a Sprayed Polyurethane Foam Roofing Project." *2015 Project Management Symposium*, College Park, MD, USA (June 7-8, 2015).

[C6] **Gajjar, D.\***, Kashiwagi, D., Sullivan, K., Kashiwagi, J. (2015) "Performance Measurement System for Maintenance of SPF Roofing System: A 4 Year Case Study." *51<sup>st</sup> ASC Annual International Conference Proceedings*, College Station, TX, USA (June 23 – 24, 2015).

[C5] **Gajjar, D.\***, Kashiwagi, D., and Kashiwagi, J. (2013) "Use of Performance Information Risk Minimization Program to Identify Problem Projects." *RICS COBRA Conference 2013*, New Delhi, India, pp. 897-904 (September 10-12, 2013).

[C4] Kashiwagi, D., **Gajjar, D.**, Smithwick, J.\*, Kashiwagi, J. (2013) "Implementation of a Real-Time Information System for a Roofing Manufacturer." *ISEC-7*, Honolulu, HI, USA pp. (June 18-23, 2013).

[C3] **Gajjar, D.\***, Sullivan, K., Kashiwagi, D. (2012) "Manufacturer's Use of End User to Minimize Risk." *RICS COBRA Conference 2012*, Las Vegas, NV, USA pp. 1869-1875 (September 11-13, 2012).

[C2] **Gajjar, D.\***, Kashiwagi, D., Kashiwagi, J. (2012) "Manufacturer's New Approach To Risk." *RICS COBRA Conference 2012*, Las Vegas, NV, USA pp. 1859-1868 (September 11-13, 2012).

[C1] *Greenfield, L.\**, **Gajjar, D.**, Kashiwagi, D., Sullivan, K. (2012) "An Educational Approach For Using Performance Criteria in the Roofing Industry." *RICS COBRA Conference 2012*, Las Vegas, NV, USA pp. 552-559 (September 11-13, 2012).

## RESEARCH SUPPORT

### SUMMARY OF RESEARCH GRANTS

Total Number of External Research Grants Submitted at CU (PI and/or Co-PI):	<b>38</b>
Total Amount of External Research Grants Submitted at CU (PI and/or Co-PI):	<b>\$ 5,511,715</b>
<u>Total External Research Grants Awarded/Accepted at CU (PI and/or Co-PI):</u>	<b>16</b>
<u>Total External Research Grant Amount Awarded/Accepted at CU (PI and/or Co-PI):</u>	<b>\$ 1,972,996</b>

### ANNUAL RESEARCH PROPOSED & AWARDED (As of May 15, 2025)

Year	External Proposed Submitted	External Proposal Awarded / Accepted	Research Expenditures
2024 – 2025*	\$1,868,409	\$1,394,031	\$105,506
2023 – 2024	\$1,101,004	\$212,704	\$118,727
2022 – 2023	\$369,946	\$85,914	\$99,561
2021 – 2022	\$1,346,285	\$104,420	\$73,556
2020 – 2021	\$342,805	\$127,327	\$53,403
2019 – 2020	\$349,802	\$48,600	\$26,419
2018 – 2019	\$133,464	\$0	\$0
<b>TOTAL</b>	<b>\$5,511,715</b>	<b>\$1,972,996</b>	<b>\$477,172</b>

\*Associate Professor

### LIST OF RESEARCH GRANTS BY SPONSOR

#### External Research Proposals – Funded Proposals

[F16] Roofing Alliance – National Roofing Contractors Association Foundation (Co-PI – 33%)  
 Title: Roofing Industry Knowledge Dissemination and Impact on Faculty  
 Term: April 2025 – December 2025  
**Amount: \$36,800**  
 Current Status: Funded (In-progress)

- [F15] Southern Concrete Masonry Association (Co-PI – 25%)  
Title: Digital Masonry Frame Homes – Phase I  
Term: March 2025 – March 2027  
**Amount: \$292,480**  
Current Status: Funded (In-progress)
- [F14] Roofing Alliance – National Roofing Contractors Association Foundation (Co-PI – 33%)  
Title: Roofing Education and Skills Development Bootcamp  
Term: May 2025 – December 2025  
**Amount: \$13,522**  
Current Status: Funded (In-progress)
- [F13] Roofing Alliance – National Roofing Contractors Association Foundation (PI – 40%)  
Title: The Roofing Industry Center  
Term: August 2024 – August 2028  
**Amount: \$1,006,229**  
Current Status: Funded (In-progress)
- [F12] The Beaver Charitable Trust (PI – 100%, Sub-contract to Arizona State University)  
Title: Heavy Construction Equipment, Methods and Materials  
Term: July 2024 – May 2027  
**Amount: \$45,000**  
Current Status: Funded (In-progress)
- [F11] EPDM Roofing Association (Co-PI – 50%)  
Title: ERA Knowledge Dissemination Study  
**Amount: \$12,928**  
Term: August 2023 – May 2024  
Current Status: Funded (Complete)
- [F10] Roofing Alliance – National Roofing Contractors Association Foundation (PI – 60%)  
Title: Sustainability and Resiliency Initiatives for the Roofing Industry  
**Amount: \$169,776**  
Term: July 2023 – June 2025  
Current Status: Funded (In-progress)
- [F9] Carolinas Associated General Contractors (Co-PI – 40%)  
Title: Title I/CEP High School Construction Workforce Education / Bootcamp  
**Amount: \$30,000**  
Term: April 2023 – December 2023  
Current Status: Complete
- [F8] EPDM Roofing Association (Co-PI – 50%)  
Title: Sustainability and Urban Heat Island Effect Research Dissemination and Industry Outreach  
**Amount: \$18,400**  
Term: August 2022 – January 2024  
Current Status: Complete
- [F7] Roofing Alliance – National Roofing Contractors Association Foundation (PI – 60%)  
Title: Developing Education Resources for Workforce Development and Retention

**Amount: \$67,514**

Term: August 2022 – April 2023

Current Status: Complete

- [F6] EPDM Roofing Association (PI – 50%)  
Title: Systematic Review of the Impact of Above Deck Insulation on Cool Roof Efficiency and its Overall Impact on Urban Heat Island Effect  
**Amount: \$8,848**  
Term: January 2022 – December 2022  
Current Status: Complete
- [F5] EPDM Roofing Association (PI – 50%)  
Title: Systematic Review of the Impact of Membrane Color on Cool Roof Efficiency and its Overall Impact on Urban Heat Island Effect  
**Amount: \$19,461**  
Term: October 2021 – August 2022  
Current Status: Complete
- [F4] Rocky Mountain Mechanical Contractors Association (PI – 50%)  
Title: Phase 1: Business Case for HVAC Tech Licensing Requirement in Colorado  
**Amount: \$19,997**  
Term: August 2021 – December 2021  
Current Status: Complete
- [F3] New Horizons Foundation (PI – 60%)  
Title: Effective Project Close-Out for HVAC / Sheet Metal Contractors: Best Practices Guide  
**Amount: \$47,229**  
Term: October 2020 – December 2021  
Current Status: Complete
- [F2] Roofing Alliance – National Roofing Contractors Association Foundation (PI – 65%)  
Title: Workforce Education & Retention Initiatives for the Roofing Industry  
**Amount: \$136,212**  
Term: June 2020 – August 2022  
Current Status: Complete
- [F1] Roofing Alliance – National Roofing Contractors Association Foundation (PI - 100%)  
Title: Bring Awareness to The Roofing Industry by Developing and Implementing Roofing Focused College Curriculum  
**Amount: \$48,600**  
Term: July 2019 – June 2020  
Current Status: Complete

#### **External Research Proposal – In-Review**

- [F1] National Science Foundation (Co-PI – 30%)  
Title: EmpowerRing the Future Workforce - Leveraging Technological InnovationS for CET Roofing Curricula for High School  
Term: August 2025 – August 2028  
**Amount: \$1,525,607**

### Internal Research Proposal – Funded

- [F2] CSM Industry Advisory Board (PI – 50%)  
Title: Workforce Demographics / Knowledge Transfer for Southeast United States  
**Amount: \$20,000**  
Term: January 2020 – October 2021  
Current Status: Complete
- [F1] Richard Pennell Grant (PI – 100%)  
**Amount: \$17,278**  
Title: Evaluate Construction Sub-Contractor Selection Criteria  
Term: July 2019 – June 2021  
Current Status: Complete

### External Research Proposal – Not Funded

- [F21] Spencer Foundation (Co-PI – 30%)  
Title: Breaking Ground: Addressing Barriers to Women and Minorities in STEM Careers  
Term: January 2025 – August 2026  
**Amount: \$49,775**
- [F20] New Horizons Foundation (Co-PI - 30%)  
Title: Identifying Effective KPIs For Mechanical Sheetmetal Contractors  
**Amount: \$89,729**  
Term: April 2023 – June 2024
- [F19] Spencer Foundation (Co-PI - 40%)  
Title: Exploring the accessibility and effectiveness of three interventions at Community Eligibility Provision high school in influencing future workers' knowledge and perceptions of construction  
**Amount: \$49,113**  
Term: August 2023 – July 2024
- [F18] National Science Foundation (Co-PI – 40%)  
Title: Collaborative Research: Integrating technological innovations within CET curricula framework for enhancing teaching excellence two-year institutions  
**Amount: \$893,319**  
Term: August 2022 – August 2026
- [F17] Project Management Institute (PMI) (Co-PI – 33%)  
Title: Key Ingredients for a Successful RFQ/P Recipe from Vendor's Perspective  
**Amount: \$49,468**  
Term: January 2023 – February 2024
- [F16] Spencer Foundation (Co-PI – 30%)  
Title: Are STEM-based interventions really equitable and accessible? A multiple case study analysis of construction engineering and technology (CET) based interventions in Title 1 schools  
**Amount: \$59,946**  
Term: January 2023 – August 2024

- [F15] Roofing Alliance – National Roofing Contractors Association Foundation (PI – 40%)  
Title: A Study of Wage and Benefit Packages in the Roofing Industry  
**Amount: \$127,746**  
Project Dates: January 2022 – September 2023
- [F14] Ready Mixed Concrete Research & Education Foundation (Co-PI – 50%)  
Title: Rethinking Driver Recruitment and Retention Strategies for the Ready Mixed Concrete Industry  
**Amount: \$99,878**  
Project Dates: January 2022 – July 2023
- [F13] National Science Foundation IUCRC (Co-PI – 20%)  
Title: Center for the Improvement of Construction Leadership and Process (CICLP)  
**Amount: \$20,000**  
Project Dates: January 2022 – December 2022
- [F12] National Concrete Masonry Association (PI – 60%)  
Title: Workforce Education & Retention Initiatives for the Concrete Masonry Industry  
**Amount: \$65,919**  
Project Dates: September 2021 – December 2022
- [F11] Spencer Foundation (PI – 55%)  
Title: Evaluate and Compare Construction Engineering and Management Curriculum (CEMC) at the Precollege Levels in the Carolinas with Other Industry-specific Curriculum (ISC)  
**Amount: \$45,352**  
Project Dates: May 2021 – August 2022
- [F10] Ready Mixed Concrete Research & Education Foundation (PI – 65%)  
Title: Evaluate the RMC industry readiness in attracting the Generation Z (Gen Z) workforce and retaining the current workforce.  
**Amount: \$66,884**  
Project Dates: May 2021 – April 2022
- [F9] Project Management Institute (Co-PI – 50%)  
Title: Sustainable Plan for Organizational and Talent Management Transformation: Current State of Pre-College Project Management Curriculum  
**Amount: \$47,530**  
Project Dates: December 2021 – December 2022
- [F8] Project Management Institute (PI – 50%)  
Title: Ingredient for a Successful RFQ/P Recipe from Vendor's Perspective  
**Amount: \$49,999**  
Project Dates: December 2021 – December 2022
- [F7] Coalition for Procurement Reform (PI – 75%)  
Title: Impact of Different Bidding Strategies in the Roofing Industry  
**Amount: \$52,184**  
Project Dates: August 2020 – August 2021

- [F6] National Concrete Masonry Association (PI – 60%)  
Title: Evaluate the industry readiness in retaining the current workforce and attracting the Generation Z (Gen Z) workforce into the masonry industry - Principal Investigator, Dhaval R Gajjar  
**Amount: \$40,044**  
Project Dates: June 2020 – July 2021
- [F5] National Women in Roofing (PI – 75%)  
Title: How Do We Welcome, Support, and Retain Women in the Roofing Contracting Industry  
**Amount: \$25,000**  
Project Dates: June 2020 – July 2021
- [F4] Spencer Foundation (PI – 50%)  
Title: Assessment of Offering Building Construction Education for Middle Schoolers  
**Amount: \$46,495**  
Project Dates: January 2020 – May 2021
- [F3] New Horizons Foundation (PI – 60%)  
Title: Benchmarking Safety in HVAC & Sheet Metal Industry  
**Amount: \$49,417**  
Project Dates: January 2020 – December 2020
- [F2] New Horizons Foundation (PI – 100%)  
Title: Employee Satisfaction in HVAC and Sheet Metal Industry  
**Amount: \$25,000**  
Project Dates: January 2019 – December 2019
- [F1] National Roofing Contractor Association (Team Member)  
Title: A Study of the US Roofing Industry Workforce  
**Amount: \$59,864**  
Project Dates: October 2018 – September 2019

#### Internal Funding – Not Funded

- [F3] SEED Grant – (PI – 75%)  
Title: Evaluate and Assess Middle School Interest for Construction Education  
**Amount: \$9,886**  
Project Dates: February 2020 – January 2021
- [F2] SEED Grant – (PI – 75%)  
Title: Evaluate and Assess High School Interest for Construction Education  
**Amount: \$9,830**  
Project Dates: February 2019 – January 2020
- [F1] Clemson Architectural Foundation – (PI – 100%)  
Title: Preliminary demographic study to address the challenge of decreasing workforce in the construction industry  
**Amount: \$4,200**  
Project Dates: October 2018 – March 2019

## PRESENTATIONS (ACADEMIC CONFERENCE & INDUSTRY)

### SUMMARY OF PRESENTATIONS

Total Peer-Reviewed Conference Presentations (including students):	<b>17</b>
<u>Total Peer-Reviewed Conference Presentations (including students) at CU:</u>	<b>11</b>
Industry Invited Presentations – External:	<b>92</b>
<u>Industry Invited Presentations – External at CU:</u>	<b>69</b>

### PEER-REVIEWED CONFERENCE PRESENTATIONS

- [CP17] “Resiliency Efforts in Construction Supply Chain: A Systematic Literature Review”. 14<sup>th</sup> *International Conference on Construction in the 21<sup>st</sup> Century (CITC-14)*, Rio De Janeiro, Brazil, September 6, 2024.
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- ASSOCIATE PROFESSOR
- [CP16] “Ponding and Blisters – Study of SPF roofs”. *59th Annual Associated Schools of Construction International Conference*, Liverpool, UK, April 5, 2023.
- [CP15] “Standards and Certifications for the Basis of Sustainability Claims by Roof Type”. *59th Annual Associated Schools of Construction International Conference*, Liverpool, UK, April 5, 2023.
- [CP14] “Understanding Career Opportunities for Construction Graduates within the Roofing Industry Distribution Sector”. *59th Annual Associated Schools of Construction International Conference*, Liverpool, UK, April 4, 2023.
- [CP13] “HVAC Mechanical Contractors Framework for Effective Project Close-Out”. *59th Annual Associated Schools of Construction International Conference*, April 4, 2023.
- [CP12] “Cross Sectional Assessment of CEM Curriculum Offerings at the Pre-college level in North Carolina (Evaluation).” *2021 ASEE Virtual Annual Conference Content Access*, Virtual, July 26, 2021
- [CP11] “Effects of Virtual Reality on Student Learning in Materials and Methods Course”. *56<sup>th</sup> ASC Annual International Conference*, Virtual, September 4, 2020.
- [CP10] “Evaluating the Use of Unmanned Aerial Systems (UAS) to Perform Low-Slope Roof Inspections.” *56<sup>th</sup> ASC Annual International Conference*, Virtual, September 4, 2020.
- [CP9] “Various Customer Satisfaction Correlation Factors for Construction Manufacturer.” *Associated Schools of Facility Management*, Phoenix, AZ, USA, October 15, 2019.
- [CP8] “Study of Construction Industry Workforce: Measuring Employee Satisfaction for Construction Career Insight”. *55<sup>th</sup> ASC Annual International Conference*, University of Denver, Denver, CO, USA, April 10 – 13, 2019.

[CP7] "Impact of Manufacturer and Job Complexity on the Roofing Quality for Sprayed Polyurethane Roofs". *Associated Schools of Facility Management*, Charlotte, NC, USA, October 2, 2018.

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ASSISTANT PROFESSOR

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[CP6] "Performance Measurement System for Maintenance of SPF Roofing System: A 4 Year Case Study." *51<sup>st</sup> ASC Annual International Conference Proceedings*, College Station, TX, USA, June 23 – 24, 2015.

[CP5] "Value-based Approach to IT Networked Services Delivery: A Case Study." *2015 Project Management Symposium*, College Park, MD, USA, June 7-8, 2015.

[CP4] "Project Preplanning Best Practices for Educational Facilities: A Case Study." *2015 Project Management Symposium*, College Park, MD, USA, June 7-8, 2015.

[CP3] "Maintaining the Quality of Constructed Facilities Using the Performance Information Measurement System: A Three-Year Study on SPF Roofing" *IFMA World Workplace 2014*, New Orleans, LA, September 18, 2014

[CP2] "Manufacturer's Use of End User to Minimize Risk" *RICS COBRA Conference 2012*, Las Vegas, NV, September 11-13, 2012.

[CP1] "Manufacturer's New Approach to Risk" *RICS COBRA Conference 2012*, Las Vegas, NV, September 11-13, 2012.

## **INDUSTRY INVITED PRESENTATIONS**

[IP92] Gajjar, D., Sharma. V. "Workforce Attraction and Retention Initiatives and Sustainability and Resiliency for the Roofing Industry: Research Update". The Roofing Alliance Annual Meeting, April 25, 2025.

[IP91] Gajjar, D., Sharma. V. "Center for Leadership and Innovation Update". The Roofing Alliance Annual Meeting, April 24, 2025.

[IP90] Gajjar, D. "Workforce Attraction and Retention Initiatives and Center for the Roofing Industry: Research Update". The Roofing Alliance Annual Meeting, November 15, 2024.

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ASSOCIATE PROFESSOR

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[IP89] Gajjar, D. "The Transformative Roofing Center Proposal". The Roofing Alliance Annual Meeting, April 26, 2024.

[IP88] Gajjar, D. "Workforce Attraction and Retention Initiatives for the Roofing Industry: Research Update". The Roofing Alliance Annual Meeting, April 26, 2024.

[IP87] Gajjar, D. "The Transformative Roofing Center". The Roofing Alliance Annual Meeting, November 10, 2023.

[IP86] Gajjar, D. "Workforce Attraction and Retention Initiatives for the Roofing Industry: Research Update". The Roofing Alliance Annual Meeting, November 10, 2023.

- [IP85] Gajjar, D. **KEYNOTE:** “Pre-planning = Success. It’s Not As Difficult As You Think”. District II National Association of Educational Procurement Annual Conference, October 25, 2023.
- [IP84] Gajjar, D. “Roofing Curriculum Development and Dissemination”. Roofing Alliance Faculty Annual Retreat, October 11, 2023.
- [IP83] Gajjar, D. “Workforce Shortages...Ah! Help!”. Kentucky National Educational Procurement Annual Conference, September 25, 2023.
- [IP82] Gajjar, D. “Where We Are Today and Why We Need to Pre-Plan”. Thomas Builders Annual Education, July 28, 2023.
- [IP81] Gajjar, D. **KEYNOTE:** “Pre-planning = Success. It’s Not As Difficult As You Think”. National Association of Educational Procurement Annual Conference, May 2, 2023.
- [IP80] Gajjar, D. “Data! Data! Data! Are We Blinded By All the Data”. National Association of Educational Procurement Annual Conference, May 1, 2023.
- [IP79] Gajjar, D. “Workforce Attraction and Retention Initiatives for the Roofing Industry: Research Update”. The Roofing Alliance Annual Meeting, April 14, 2023.
- [IP78] Gajjar, D. “Developing Education Resources for Workforce Attraction and Retention”. The Roofing Alliance Annual Meeting, November 11, 2022.
- [IP77] Gajjar, D. **KEYNOTE:** “Pre-planning = Success. It’s Not As Difficult As You Think”. Carolinas National Association of Educational Procurement, October 19, 2022.
- [IP76] Gajjar, D. “Why Roofing Industry Certificate Program?”. Roofing Alliance Faculty Retreat, October 10, 2022.
- [IP75] Gajjar, D., Sharma, V. “Workforce Demographics and Knowledge Transfer in Southeast United States”. Carolinas ABC Conference, July 5, 2022.
- [IP74] Gajjar, D. **KEYNOTE:** “Workforce Attraction and Retention for the Concrete Industry”. Carolinas Concrete Ready Mixed Concrete Association Conference, June 13, 2022.
- [IP73] Gajjar, D., Sharma, V. “Workforce Demographics for the AEC Industry - Military Engineer Professionals”. Society of American Military Engineers (SAME) Joint Engineering Training Conference, May 10, 2022.
- [IP72] Gajjar, D. “Workforce Attraction and Retention Initiatives for the Roofing Industry Update”. The Roofing Alliance Annual Meeting, April 22, 2022.
- [IP71] Gajjar, D. “Developing Education Resources for Workforce Attraction and Retention”. The Roofing Alliance Annual Meeting, April 22, 2022.
- [IP70] Gajjar, D. “Developing Education Resources for Workforce Attraction and Retention”. The Roofing Alliance Annual Meeting, April 21, 2022.

- [IP69] Gajjar, D. "Workforce Demographics for Facility Management Professionals". National Facility Management Technology (NFMT) Conference, March 30, 2022.
- [IP68] Gajjar, D. "Roofing Industry Certificate Program Use and Implementation". Roofing Alliance Faculty Retreat, March 9, 2022.
- [IP68] Gajjar, D. "Why Roofing Industry Certificate Program?". Roofing Alliance Faculty Retreat, March 7, 2022.
- [IP67] Gajjar, D., Sharma, V. "Workforce Demographics and Knowledge Transfer". American Council for Construction Education (ACCE) Mid-Year Conference, February 23, 2022.
- [IP66] Gajjar, D. "Workforce Demographics for Facility Management Professionals". International Facility Management Association Piedmont Triad Monthly Education Meeting, February 10, 2022.
- [IP66] Gajjar, D. "Tired of Losing Jobs Based on Price? Learn How to Make Your Proposals Stand Out". International Roofing Expo, February 3, 2022.
- [IP65] Gajjar, D., Lucas, J. "Workforce Demographic is Not Going to Change: You Have To!". Thomas Concrete Annual Meeting, December 7, 2021.
- [IP64] Gajjar, D. "Risk Minimization in the Construction Industry". Thomas Builders Annual Education, December 3, 2021.
- [IP63] Gajjar, D. "Workforce Education and Retention Initiatives for the Roofing Industry Update". National Roofing Contractors Association Annual Meeting, November 12, 2021.
- [IP62] Gajjar, D., Sharma, V. "Workforce Demographics and Knowledge Transfer in Southeast Region". Construction Science and Management Symposium, October 14, 2021.
- [IP61] Gajjar, D. "Workforce Demographic is Not Going to Change: You Have To!". National Ready Mixed Concrete Association (NRMCA) ConcreteWorks, October 3, 2021.
- [IP60] Gajjar, D. **KEYNOTE:** "Data! Data! Data! Are We Blinded by All the Data!". International Facility Management Association Carolinas Annual Summit and Gala, September 16, 2021.
- [IP59] Gajjar, D., Good, W. "A College Focused Course on Roofing: Who Knew?". International Roofing Expo, August 11, 2021.
- [IP58] Gajjar, D. "Workforce Education and Retention Initiatives for the Roofing Industry Update". Roofing Alliance Annual Meeting, Virtual, April 23, 2021.
- [IP57] Gajjar, D., Sharma, V. "Workforce Demographics / Knowledge Transfer in the Southeast Region". Industry Advisory Board Spring Meeting, Virtual, February 11, 2021.
- [IP56] Gajjar, D. "Pre-planning = Success: It's Not As Difficult As You Think". South Carolina Association of Government Purchasing Officials (SCAGPO) – Illinois Association of Government Purchasing Officials (IAPPO) Joint Conference 2020, Virtual, November 19, 2020.

- [IP55] Gajjar, D. "Workforce Education and Retention Initiatives for the Roofing Industry Update". Joint Roofing Alliance Board of Trustees and Full Member Meeting, Virtual, November 13, 2020.
- [IP54] Gajjar, D. "Data vs. Metrics: Is There A Difference?". Transform Supply Chain 2020, Virtual, October 21, 2020.
- [IP53] Gajjar, D. "Great Teams Lead to Great Projects: Vendors You Hire Matter". Airport Purchasing Group Annual Conference, Virtual, October 8, 2020.
- [IP52] Gajjar, D. "Use of Post Occupancy Evaluation Method to Measure Performance for Roofing Manufacturers and Contractors". PDBe Colloquium, Virtual, October 2, 2020.
- [IP51] Gajjar, D. "Workforce Education and Retention Initiatives for the Roofing Industry". Roofing Alliance Member Meeting, Virtual, April 26, 2020.
- [IP50] Gajjar, D. "Roofing College Course Develop and Implement Results". Roofing Alliance Member Meeting, Virtual, April 26, 2020.
- [IP49] Gajjar, D. "Workforce Education and Retention Initiatives for the Roofing Industry". Joint Roofing Alliance Finance and Board of Trustees Member Meeting, Virtual, April 23, 2020
- [IP48] Gajjar, D. "Roofing College Course Develop and Implement Results". Joint Roofing Alliance Finance and Board of Trustees Member Meeting, Virtual, April 23, 2020.
- [IP47] Gajjar, D. "Impact of Different Bidding Strategies in the Roofing Industry". Coalition for Procurement Reform Annual Meeting, Virtual, March 27, 2020.
- [IP46] Gajjar, D. **KEYNOTE:** "Data vs. Metrics in Procurement". South Carolina Association of Governmental Purchasing Organization Quarterly Training, Columbia, SC, March 12, 2020.
- [IP45] Gajjar, D. "Great Teams Lead to Great Projects". South Carolina Association of Governmental Purchasing Organization Quarterly Training, Columbia, SC, March 12, 2020.
- [IP44] Gajjar, D., Kashiwagi, I. "Metrics and Supplier / Client relationships in the Procurement / Supply Chain Process". Bureau Veritas Annual Sales Summit, Houston, TX, Monday February 3, 2020.
- [IP43] Gajjar, D. "Data! Data! Data! Are We Blinded by All the Data?". Oil & Gas Supply Chain & Procurement, Houston, TX, December 4, 2019.
- [IP42] Gajjar, D. "Roofing College Course Develop and Implement Progress". Joint Roofing Alliance Board of Trustees and Full Member Meeting, Chicago, IL, November 15, 2019.
- [IP41] Gajjar, D. "How Can Expert Vendors Make Your Life Easier". South Carolina Association of Governmental Purchasing Organization Annual Meeting, Myrtle Beach, SC, November 14, 2019.
- [IP40] Gajjar, D. "Expertise-Based Procurement". South Carolina Association of Governmental Purchasing Organization Annual Meeting, Myrtle Beach, SC, November 14, 2019.
- [IP39] Gajjar, D. "How to Get the Right Human Assets on Your Projects". South Carolina Association of Governmental Purchasing Organization Annual Meeting, Myrtle Beach, SC, November 13, 2019.

- [IP38] Gajjar, D. "Moving Your RFP from C to A Through the Use of Performance Metrics". South Carolina Association of Governmental Purchasing Organization Annual Meeting, Myrtle Beach, SC, November 13, 2019.
- [IP37] Gajjar, D. **KEYNOTE:** "Experts are the Difference Makers: How to Get the Right Human Assets on Your Projects". IFMA Piedmont Triad Chapter, Greensboro, NC, October 28, 2019.
- [IP36] Gajjar, D. "Expertise-Based Procurement: How Can Expert Vendors Make Your Life Easier". NCMA World Congress, Boston, MA, July 30, 2019.
- [IP35] Gajjar, D. "Data or Valuable Metrics: FM's Harness the Power". APPA National Conference. Denver, CO, July 15, 2019.
- [IP34] Gajjar, D. "Experts are the Difference Makers: How to Get the Right Human Assets on Your Projects". IFMA Upstate South Carolina Chapter, Greenville, SC, May 9, 2019.
- [IP33] Gajjar, D. "How to Attract Workforce to the Roofing Industry?". Roofing Alliance Annual Meeting, Phoenix, AZ, April 26, 2019.
- [IP32] Gajjar, D. "How to Attract Workforce to the Roofing Industry?". Roofing Alliance Annual Meeting, Phoenix, AZ, April 25, 2019.
- [IP31] Gajjar, D. "How to Get the Right Human Assets on Your Projects". IFMA Columbia, Columbia, SC, March 27, 2019.
- [IP30] Gajjar, D. "Data or Valuable Metrics: FM's Harness the Power". NFMT Annual Convention. Baltimore, MD, March 6, 2019.
- [IP29] Gajjar, D. "Data or Valuable Metrics: FM's Harness the Power". VAPPA National Conference. Charlottesville, VA, March 13, 2019.
- [IP28] Gajjar, D. "Data or Valuable Metrics: FM's Harness the Power". SAME / IFMA National Conference. San Antonio, TX, February 7, 2019.
- [IP27] Gajjar, D. "Experts are the Difference Makers: How to Get the Right Human Assets on Your Projects". IFMA East Tennessee, Knoxville, TN, January 31, 2019.
- [IP26] Gajjar, D. "The Ability to Manage Risk the Defining Project Management Skill for Project Success". PMI Nashville, Nashville, TN, January 15, 2019.
- [IP25] Gajjar, D. "Beyond Contracts – Minimizing Project Risks with Performance Metrics and Transparency". IFMA Upstate South Carolina Chapter, Greenville, SC, November 8, 2018.
- [IP24] Gajjar, D. "Navigating Gender Difference in the Workplace". IFMA World Workplace, Charlotte, NC, October 5, 2018.
- [IP23] Gajjar, D., De Rosa, E., Corea, R. "Millennials in the FM Workplace: The Benefits, Challenges and HR Pitfalls". IFMA World Workplace, Charlotte, NC, October 4, 2018

- [IP22] Gajjar, D., Ritter, T., Davis, S. "The Internet of Things (IoT)". IFMA Phoenix Chapter, Phoenix, AZ, May 10, 2017.
- [IP21] Gajjar, D. "Pre-planning: Not as Difficult as you Think". Project Controls Summit, Alhambra, CA, February 3, 2016.
- [IP20] Gajjar, D. "Facility Management of the Future". IFMA Vancouver Chapter, Vancouver, Canada, January 27, 2016.
- [IP19] Gajjar, D. "Best Value Procurement System". Northwest and Canada Region Meeting, Marriott Hotel, Vancouver, Canada, January 26, 2016.
- [IP18] Gajjar, D., Sullivan, K. "Use of Performance Information to Identify and Rectify Risky Projects". Tremco Southwest Region Meeting, Arizona State University, Tempe, AZ, February 4, 2015.
- [IP17] Gajjar, D. "Use of Best Value & Performance Information". Executive Leadership Meeting, Arizona State University, Tempe, AZ, December 9, 2014.
- [IP16] Gajjar, D. "Risky Projects Tracking with the Use of Real-Time Information System". Neogard Annual Regional Manager Meeting, Wyndham Hotel, Dallas, TX, September 11, 2014.
- [IP15] Gajjar, D. "Performance Information Tracking for Warranted projects". Tremco Northwest Region Meeting, Wingate Hotel, Seattle, WA, September 10, 2014.
- [IP14] Gajjar, D. "Avoiding Silo Thinking through Accountability & Transparency". Project Management Institute (PMI) Meeting, Willows, Tempe, AZ, March 21, 2014.
- [IP13] Gajjar, D. "Case Study of a Best Value Manufacturer". Project Management Institute (PMI) Meeting, Wildflower Bread Company, Phoenix, AZ, March 14, 2014.
- [IP12] Gajjar, D. "Use of Performance Information for Marketing". Alpha Program Annual Conference, Kalura Trattoria, Palm Springs, CA, January 28, 2014.
- [IP11] Gajjar, D. "Education of the Internal Key Stakeholders on Risk Minimization Program". Neogard Regional Managers Conference, Neogard Headquarters, Dallas, TX, December 23, 2013.
- [IP10] Gajjar, D. "A Value Based Approach to Business". Strategic Business Unit Meeting, Arizona State University, Tempe, AZ, October 29, 2013.
- [IP9] Gajjar, D. "Attracting High Performing Contractors to the Risk Minimization Transparency Program". Manufacturer & Client Educational Meeting, Neogard Headquarters, Dallas, TX, June 27, 2013.
- [IP8] Gajjar, D. "Efficiency through Alignment of Resources with the Use of Performance Information". Manufacturer Executive Meeting, Neogard Headquarters, Dallas, TX, May 31, 2013.
- [IP7] Gajjar, D. "Use of Performance Information to Identify Problem Projects". Neogard Applicator Training, Wyndham Hotel, Dallas, TX, December 7, 2012.

- [IP6] Gajjar, D. "Strategic Plan, Vision & Goals to "Go Public" with Performance Information". General Managers Meeting, PBSRG, ASU, Tempe, AZ, November 7, 2012.
- [IP5] Gajjar, D., Sullivan, K. "Use of Warranty Information Process to Minimize Risk". Tremco – Arizona State University Joint Effort, Tremco Inc., Cleveland, OH, March 6, 2012.
- [IP4] Gajjar, D. "Manufacturers Approach to Risk Minimization". Best Value Conference, Fiesta Resort, Tempe, AZ, February 14, 2012.
- [IP3] Gajjar, D., Kashiwagi, D. "Accountability and Transparency with the Use of Performance Information through Non-technical Information". Alpha Program Annual Conference, Wyndham Hotel, Dallas, TX, February 1, 2012.
- [IP2] Gajjar, D. "Use of Communication during Pre-Award Meeting to Minimize Risk". Client Manufacturer Collaboration Meeting, Neogard Headquarters, Dallas, TX, November 9, 2011.
- [IP1] Gajjar, D. "Identification of Non-performing Roofs Using Visual Inspections". Manufacturer Executive Meeting, Neogard Headquarters, Dallas, TX, August 12, 2011.

## TEACHING / STUDENT SUPERVISION

### SUMMARY OF TEACHING

Different Undergraduate Course Topics Taught:	<b>6</b>
Different Graduate Course Topics Taught:	<b>4</b>
Total Number of Students Taught:	<b>664</b>
Total Number of Student Credit Hours Taught:	<b>1,992</b>
Average Evaluation Score (Undergraduate Courses):	<b>4.68</b>
Average Evaluation Score (Graduate Courses):	<b>4.55</b>
Total Number of New Courses Developed:	<b>7</b>
<i><u>Student Supervision</u></i>	
Total Student Supervision (Chair & Committee Member):	<b>21</b>
Total Ph. D. Student (Dissertation) Supervision (Chair & Committee Member):	<b>5</b>
Total M.S. Student (Thesis) Supervision (Chair & Committee Member):	<b>16</b>

### NEW COURSES DEVELOPED

#### New Undergraduate Courses Developed

1. CSM 4220 / 4560 – CSM Studio I / II – Roofing Competition – Created in Fall 2019
2. CSM 4410 – Principles of Roofing I – Created in Spring 2020

3. CSM 4420 – Principles of Roofing II – Created in Spring 2021
4. CSM 4430 – Roofing Business – Created in Spring 2022

#### **New Graduate Courses Developed**

1. CSM 6410 – Principles of Roofing I – Created in Spring 2020
2. CSM 6420 – Principles of Roofing II – Created in Spring 2021
3. CSM 6430 – Roofing Business – Created in Spring 2022

#### **TEACHING SUMMARY** (*Through Spring 2025*)

<b>Semester / Year</b>	<b>Course Number and Title</b>	<b>Number Enrolled</b>	<b>Course Eval (1-5)</b>
Fall 2018	CSM 2030 – Materials & Methods I	31	<b>4.72</b>
Fall 2018	CSM 2050 – Materials & Methods II	28	<b>4.78</b>
Spring 2019	CSM 2030 – Materials & Methods I	38	<b>4.76</b>
Spring 2020	CSM 2050 – Materials & Methods II	27	<b>4.33</b>
Fall 2019	CSM 2050 – Materials & Methods II	35	<b>4.46</b>
Fall 2019	CSM 4980 – Roofing Competition	6	<b>4.98</b>
Spring 2020	CSM 2050 – Materials & Methods II	39	<b>4.42</b>
Spring 2020	CSM 4980 – Principles of Roofing I	11	<b>4.81</b>
Spring 2020	CSM 8900 – Principles of Roofing I	10	<b>4.78</b>
Fall 2020	CSM 4980 – Roofing Competition	5	<b>4.76</b>
Fall 2020	CSM 8650 – Project Management	12	<b>4.68</b>
Spring 2021	CSM 2050 – Materials & Methods II	42	<b>4.58</b>
Spring 2021	CSM 4980 – Principles of Roofing I	9	<b>4.74</b>
Spring 2021	CSM 8900 – Principles of Roofing II	7	<b>4.79</b>
Fall 2021	CSM 4220 – Construction Mgmt Studio I (Roofing Comp.)	5	<b>4.80</b>
Fall 2021	CSM 8650 – Project Management	21	<b>4.72</b>
Spring 2022	CSM 2050 – Materials & Methods II	27	<b>4.67</b>
Spring 2022	CSM 4980 – Roofing Business	23	<b>4.44</b>
Spring 2022	CSM 8900 – Roofing Business	17	<b>4.47</b>
Fall 2022	CSM 4220 – Construction Mgmt Studio I (Roofing Comp.)	5	<b>5.00</b>
Spring 2023	CSM 4400 – Principles of Roofing I	21	<b>4.58</b>
Spring 2023	CSM 6400 – Principles of Roofing I	6	<b>4.37</b>
Spring 2023	CSM 8650 – Project Management	46	<b>4.22</b>
Fall 2023	CSM 4220 – Construction Mgmt Studio I (Roofing Comp.)	4	<b>4.93</b>
Fall 2023	CSM 4410 – Principles of Roofing II	8	<b>4.72</b>
Fall 2023	CSM 6410 – Principles of Roofing II	19	<b>4.34</b>
Spring 2024	CSM 8650 – Project Management	33	<b>4.62</b>
Spring 2024	CSM 4420 – Roofing Business	18	<b>4.60</b>
Spring 2024	CSM 6420 – Roofing Business	5	<b>3.83</b>
Fall 2024	CSM 4400 – Principles of Roofing I	44	<b>4.48</b>

Fall 2024	CSM 4220 – Construction Mgmt Studio (Roofing Comp.)	4	<b>5.00</b>
Spring 2025	CSM 4410 – Principles of Roofing II	18	<b>4.30</b>
Spring 2025	CSM 6410 – Principles of Roofing II	18	<b>4.94</b>
Spring 2025	CSM 8650 – Project Management	22	<b>4.82</b>
<b>Total:</b>		<b>664</b>	<b>4.63</b>

## STUDENT SUPERVISION

### Ph D Supervisions (Chair / Co-Chair)

- [1] Wagle, Padam  
Anticipated Completion: Spring 2026  
Topic: Sustainability and Resiliency in the Roofing Industry
- [2] Anderson, Cayla  
Anticipated Completion: Spring 2025  
Topic: Best Practices for Teaching Construction Engineering and Management (CEM) Courses for Prek-12

### Ph D Supervisions (Committee Member)

- [1] Usher, Todd  
Completed: Spring 2023  
Topic: Consumer Perception of Home Builders - A Mixed Methods Study
- [2] Magxaka, Marchell  
Date Completed: Spring 2022  
Topic: Affordable Homeownership Development Challenges of Small Towns in the Upstate Region of the State of South Carolina
- [3] Coffey, Bob  
Date Completed: Spring 2021  
Topic: The Community of Inquiry Effect on Learning for an Online Course

### MS Supervisions – Thesis (Chair / Co-Chair)

- [1] Viswanathan, Gopika  
Completed: Spring 2024  
Topic: Construction Culture for Attracting and Retaining Women
- [2] Garg, Stuti  
Completed: Fall 2024  
Topic: Assessing the Efficacy of Traditional Statistical Models vs. Modern Machine Learning (MIL) Approaches for Prediction Modeling in the Construction Industry
- [3] Ameenullah, Amiri  
Completed: Fall 2023  
Topic: Work-life Balance for Construction Professionals
- [4] Dua, Ayushi

Completed: Spring 2023

Topic: Systematic Literature Review of Sustainability and the Ideal Study Framework for the Roofing Industry

[5] Bapat, Prajakta

Completed: Spring 2023

Topic: Data Visualization and Framework for Federal Construction Projects

[6] Anderson, Cayla

Completed: Spring 2021

Topic: Current State of Construction Engineering and Management (CEM) Education Course Offerings at Prek-12 in the Carolinas

### **MS Supervisions – Thesis (Committee Member)**

[1] Kodela, Dundy

Anticipated Completion: Fall 2025

Topic: Generative AI in South Carolina Government Agencies: Assessing Literacy, Usage, and Adoption Support

[2] Arezo, Arez

Anticipated Completion: Summer 2025

Topic: Strategies Employed by Successful Women in the Construction Industry to Overcome Challenges Faced in Their Careers

[3] Reddi, Vijaya Ravi Prasanth

Anticipated Completion: Spring 2025

Topic: Comparative Analysis of Design-Build and Design-Bid-Build Project Delivery Methods through Cost, Schedule and Quality Performance for Warehousing and Storage Facilities

[4] Kallamadugu, Althaf

Completed: Fall 2024

Topic: Assessing Student Satisfaction Using Courses Generated by Artificial Intelligence (AI)

[5] Soni, Radhika

Anticipated Completion: Fall 2025

Topic: Evaluating High School Students' Perceptions about the Construction Industry: Views to Consider and Improve the Inclination Towards a Career in Construction

[6] Anspach, Johnathan

Completed: Fall 2024

Topic: Analysis of the Right Sizing Approach to Healthcare Space Planning

[7] Saborio, Alexis

Completed: Fall 2022

Topic: Developing Mexican and Central American Spanish Phrases for U.S Construction Workforce to Improve Jobsite Communication

[8] Bharadwaj, Bishesh

Completed: Fall 2023

Topic: Factors Influencing Students in Middle and High School to Pursue a Career in Construction

[9] Beates, Lindsey

Date Completed: Spring 2021

Topic: The Effect of Homeowner Behavior on Energy-Efficiency in a High-Performance Home

[10] Coffey, Bob

Date Completed: Spring 2021

Topic: Best Practice Recommendations for Online Construction Management Undergraduate Education at Clemson University

## PROFESSIONAL ACTIVITIES / SERVICE

University-Level Committee **4**

College-Level Committee: **12**

Department-Level Committee: **14**

Professional-Level Committee: **4**

Peer Reviewer for Journals: **5**

Peer Reviewer for Conference Proceedings **10**

### UNIVERSITY-LEVEL COMMITTEE

1. CAAC College Representative, Pillar 1 Clemson Plan (2023 – 2025)
2. CAAC College Representative, Information and Communication Technology Accessibility Review Board (2023 – 2025)
3. CAAC College Representative, Undergraduate Curriculum Committee (2023 – 2024)
4. CAAH College Representative, Undergraduate Curriculum Committee (2022 – 2023)

### COLLEGE-LEVEL COMMITTEE

1. Committee Member, Richard Pennell Center Committee (2022 – Present)
2. Committee Member, Associate Dean for Research and Creative Activities (2024 – Present)
3. Committee Member, Associate Dean for Faculty Affairs and Graduate Studies (2024 – Present)
4. Chair, Undergraduate Admissions (2023 – 2024)
5. Committee Member, Dean's Advisory Committee (2023 – 2024)
6. Committee Member, Faculty Advisory Committee (2023 – 2024)

7. Chair, College of Architecture, Art & Construction Curriculum Committee (2023 - 2024)
8. College Representative, CAAH Curriculum Committee (2022 – 2023)
9. Committee Member, CAAH Faculty Research Awards Committee (2021 – 2022)
10. Committee Member, CAAH Faculty Research Awards Committee (2020 – 2021)
11. Chair, CAAH Faculty Research Awards Committee (2019 – 2020)
12. Committee Member, CAAH Faculty Research Awards Committee (2018 – 2019)

#### **DEPARTMENT-LEVEL COMMITTEE**

1. Interim Department Chair, Neri Department of Construction, Development and Planning (2024 – Present)
2. Associate Department Chair, Neri Department of Construction, Development and Planning (2024)
3. Faculty Advisor, Firm Foundation Student Chapter (2023 - 2024)
4. Undergraduate Program Director, Construction Science & Management Program (2022 – 2024)
5. Chair, Neri Department of Construction, Development and Planning Curriculum Committee (2022 – 2024)
6. Committee Member, Tenure Track Search Committee (2022 – 2023)
7. Committee Member, Department ByLaws Merger Committee (2022 – 2023)
8. Faculty Advisor, Firm Foundation Student Chapter (2022 – 2023)
9. Committee Member, Search Committee – Lecturer / Coordinator (2021 – 2022)
10. Faculty Advisor, Firm Foundation Student Chapter (2021 – 2022)
11. Chair, Search Committee – Lecturer / Academic Advisor (2021 – 2022)
12. Committee Member, Search Committee – Professor of Practice (2020 – 2021)
13. Faculty Advisor, Firm Foundation Student Chapter (2020 – 2021)
14. Committee Member, 1-Year Department Chair Review Committee (2018 – 2019)
15. Faculty Advisor, ABC Student Chapter (2018 – 2019)

#### **PROFESSIONAL-LEVEL COMMITTEE**

1. Member, Curriculum Committee for the Roofing Alliance (2023 – Present)
2. Member, Collaborating for Innovation in the Built Environment (CIB) (2020 – 2024)
3. Member, Upstate SC Chapter of International Facility Management Association (2018 – 2022)
4. Judge, Excellence Awards for Associated Builders and Contractors, Inc. (2018 – 2019)

#### **JOURNAL REVIEWER**

1. ASCE Journal of Legal Affairs and Dispute Resolution (2022 – Present)
2. ASCE Journal of Construction Engineering and Management (2021 – Present)

3. Journal of the American Institute of Constructors (2019 – Present)
4. International Journal of Facility Management Education and Research (2018 – Present)
5. Journal for the Advancement of Performance Information and Value (2018 – Present)

#### **CONFERENCE PROCEEDINGS REVIEWER**

1. International Council for Research and Innovation in Building and Construction World Building Congress (2022)
2. International Conference of the Associated Schools of Facility Management (2018, 2019, 2020)
3. International Conference of the Associated Schools of Construction (2018, 2019, 2020, 2021, 2022, 2023)

## **AWARDS & ACCOMPLISHMENTS**

### **1. Endowed Professor of Construction Science and Management (2023 – 2026)**

The selected candidate must have an outstanding reputation in the construction discipline as demonstrated by a sustained record of scholarly accomplishment, excellence in classroom teaching, and service to the construction industry on a regional, national and/or international level.

### **2. Associated Schools of Construction (ASC) Region 2 Teaching Award (2023)**

This award recognizes the faculty member's contribution to construction education, excellence in teaching, service to the Associated Schools of Construction and dedication to the construction profession.

### **3. Roofing Bennett Award (2022)**

This award recognizes individuals in the roofing industry who volunteer and offer notable positive accomplishments on behalf of the Roofing Alliance and the roofing industry.

### **4. Roofing Student Competition – National Winner (2021, 2023)**

Served as a faculty advisor for the student competition.

### **5. Graduate Student 3MT Competition (2023)**

One of the graduate students was placed second in the 3-minute thesis competition.