

CONTACT

Name: Joseph M. Burgett
Title: Associate Professor and Endowed CSM
Professor
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**EDUCATION**

- Ph.D. Building Construction. May 2013. University of Florida; College of Design Construction and Planning.
- Masters of Science in Building Construction. May 2011. University of Florida; M.E. Rinker Sr. School of Building Construction.
- Bachelor of Science in Building Construction. May 2002. University of Florida; M.E. Rinker Sr. School of Building Construction.

RESEARCH INTERESTS

- UAS (drones) in construction and infrastructure
- Construction technology
- Remote education

CERTIFICATIONS, LICENSES AND AWARDS

- 2018 Clemson Alumni Master Teacher Award
- Remote Pilot Airman Certificate with a Small UAS Rating
- Certified General Contractor: CG C1506115
- Certified Professional Constructor: 11593
- 2018 American Institute of Constructor Young Member Award
- 2017 ASC Region 2 National Excellence in Teaching Award
- 2016 ASC Region 2 Excellence in Teaching Award
- LEED Accredited Professional
- The John D. Doran Jr. Memorial Customer Service Award. (2008)

PROFESSIONAL EXPERIENCE

2013 – Present: **Clemson University** Associate Professor

- Courses taught:
 - CSM4210: Applied Drone use in the Built Environment
 - CSM8690: Advanced Drone Mapping and Modeling
 - CSM8900: Applied Drone Technology
 - CSM3040: Environmental Systems 1
 - CSM3050: Environmental Systems 2
 - CSM3070: Principles and Practices of Sustainable Construction
 - CSM2040: Contract Documents
 - CSM8670: Green Building Delivery

2011 – 2014: **National Labor College** Adjunct Instructor

- Courses taught:
 - CMGT4050: Fundamentals of the Construction Industry I.
 - CMGT4051: Fundamentals of the Construction Industry 2.
 - CMGT4100: Project Building Systems.
 - CMGT4200: Project Administration.
 - CMGT4220: Construction Project Planning and Scheduling.
 - CMGT4700: Construction Cost Accounting, Estimating and Finance.
- Courses Developed
 - CMGT4700: Cost Accounting, Estimating and Finance

2003 – 2010: **The Weitz Company**
Project Manager

- Responsible for the overall management of multiple commercial construction projects.
- Projects ranged in size from 250K to 25 million dollars.
- Primary responsibilities included:
 - Cost management.

- Contract administration.
- Owner relations.
- Staff development.
- Project types include biomedical research, health care, retirement campuses, municipal complexes, courthouses and libraries.

2002 – 2003:**Peter R. Brown Construction** Project Engineer

- Supported project management in commercial construction projects.
- Project size ranged from 250K – 5 million dollars.
- Project types include health care, municipal complexes, and courthouses.

REFEREED JOURNAL AND BOUND PUBLICATIONS

Burgett, Joseph, Lytle, Blake, Bausman, Dennis, Shaffer, Scott, Stuckey, Eric. (2021). So How Accurate are Drone Based Surveys Anyway?: A Structured Evaluation of a UAS Based Land Survey. *Journal of Infrastructure Systems*; ASCE.

Bausman, Dennis, Burgett, Joseph, Jadhav, Ajay, Shaffer, Scott & Stuckey, Eric. (2020). State Department of Transportation sUAS Program Development and Operational Deployment. *Professional Constructor*; *Journal of the American Institute of Constructors*.

Adjidjonu, Denise & Burgett, Joseph. (2020). Assessing the Accuracy of a Unmanned Aerial Vehicles Photogrammetric Survey. *International Journal of Construction Education and Research*. DOI: 10.1080/15578771.2020.1717683

Burgett, Joseph, Shaffer, Scott, & Stuckey, Eric. (2019). Accuracy of Drone Based Surveys to Measure Stockpile Volume. *Professional Constructor*; *Journal of the American Institute of Constructors*.

Usher, Todd. & Burgett, Joseph. (2019). Consumer Perception and Willingness to Pay for Extended new Home Warranties: *Professional Constructor*; *Journal of the American Institute of Constructors*

Burgett, Joseph. & Sharp, Julia. (2018). Impact of Motivation and Preparation on AC Exam Scores. Professional Constructor; Journal of the American Institute of Constructors 1(2018) page 5 – 14.

Burgett, Joseph., Perrenoud, Anthony, & Smith, James. (2017). Identification and Prioritization of Critical Subject Matter within Mechanical Systems Curriculum in Construction Education. International Journal of Construction Education and Research. ISSN: 1557-8771

Burgett, Joseph. (2017) Measures to Motivate and Prepare Students Taking the AC Exam: A Survey of University Department Heads. Professional Constructor; Journal of the American Institute of Constructors 2(2017) page 5 – 15..

Burgett, Joseph. (2016). American Institute of Constructors' Associate Constructors Study Guide. Alexandria, VA.

Burgett, Joseph., Smith, James., & Lavang, Yamini. (2016). A Comparison between Industry's and Academia's Perceptions of a Career in Construction Education. International Journal of Construction Education and Research. ISSN: 1557-8771

Burgett, Joseph & Sharp, Julia. (2015). HERS Standards Plug-Load Interaction Model Exploration: Incorporating the Interaction of Independent Variables to Improve the HERS Standards Plug-Load Models. Journal of Energy Systems. DOI: 10.1007/s12667-016-0200-1

Burgett, Joseph. (2015). Fixing the American Energy Leak: The effectiveness of a whole-house switch for reducing standby power loss in U.S. residences. Energy Research & Social Science 6(2015) page 87 – 94. DOI: 10.1016/j.erss.2014.12.006.

- Paper cited in Washington Post, "Energy and Environment" on February 6th, 2015 (Article: Your home is full of devices that never turn off. And they're costing you a lot of money. By Chris Mooney).

Burgett, Joseph. & Chini, Abdol. (2015). Using Building and Occupant Characteristics to Predict Residual Miscellaneous Electrical Loads: A Comparison between an Asset Label and an Operational Model. Journal of Building Performance Simulation (Feb 2015). DOI: 10.1080/19401493.2014.999122

Burgett, Joseph, Chini, Abdol & Oppenheim, Paul. (2013). Specifying Residential Retrofit Packages for 30% Reductions in Energy Consumption in Hot-Humid Climate Zones. *Energy Efficiency* 6(3) page 523 - 543. DOI: 10.1007/s12053-012-9190-6

➤ Paper featured in Renewable Energy Global Innovations Series (ISSN 2291-2460)

Burgett, Joseph & Chini, Abdol. (2012). Effective Energy Efficiency Measures for Existing Residential Homes in the Florida Market. Published in the *International Journal of Construction Education and Research*, 9 page 61 - 80.

DOI:10.1080/15578771.2012.677966.

REFEREED CONFERENCE PROCEEDING PUBLICATIONS

Magxaka, Marchell, Lucas, Jason, Burgett, Joseph. (2020). iDUC: Solution to Address Common Challenges of State Agency Drone Deployment. *Proceedings of the Associated Schools of Construction Annual Proceedings*; (Accepted)

Adjidjonu, Denise & Burgett, Joseph. (2020). Accuracy of Drone Image Based Volumetric Surveys. *Proceedings of the Associated Schools of Construction Annual Proceedings*; (Accepted)

Gajjar, Dhaval & Burgett, Joseph. (2020). Evaluating the Use of Unmanned Aerial Systems (UAS) to Perform Low-Slope Roof Inspections. *Proceedings of the Associated Schools of Construction Annual Proceedings*; (Accepted)

Adjidjonu, Denise & Burgett, Joseph. (2019). Optimal UAS Parameters for Aerial Mapping and Modeling. *Proceedings of the Associated Schools of Construction Annual Proceedings*; Denver, CO.

Smith, James & Burgett, Joseph. (2019). Review of the Current State of Hiring International Engineering Students. *Proceedings of the Associated Schools of Construction Annual Proceedings*; Denver, CO.

Bausman, Dennis., Burgett, Joseph., Chowdhury, Mashrur., and Greider, Phillip. (2019). State Department of Transportation Unmanned Aircraft Systems Policy Development. *Proceedings of the Transportation Review Board Annual Meeting*; Washington DC.

Burgett, Joseph. (2018). Perception of the AC Exam by Pass or Fail Status. *Proceedings of the Associated Schools of Construction Annual Proceedings*; Minneapolis, MN.

Burgett, Joseph & Greene, Daniel. (2018). Quantifying the Cache: The Premium for Solar Homes is Not Explained by Reduced Energy Costs. Proceedings of the Associated Schools of Construction Annual Proceedings; Minneapolis , MN.

Smith, James & Burgett, Joseph. (2018). Work Values of Millennial Construction Management Students. Proceedings of the Associated Schools of Construction Annual Proceedings; Minneapolis , MN.

Lucas, Jason., Burgett, Joseph., Hoover, Adam., & Gungor, Mehmet. (2016). Use of Ultra-Wideband Sensor Networks to Detect Safety Violations in Real Time. Proceedings of 33rd International Symposium on Automation and Robotics in Construction (ISARC 2016); Auburn, AL.

Burgett, Joseph. (2016). Leveraging Immersion Technologies in Construction Management Education: A National Electrical Code 3D Simulation Tool. Proceedings of the Associated Schools of Construction Annual Proceedings; Provo, UT.

Burgett, Joseph. (2015). Using 3D Simulation to Improve Construction Management Education: A Pilot Study to Teach the NFPA70-National Electrical Code. Proceedings of the 15th International Conference on Construction Applications of Virtual Reality (CONVR2015); Banff, Canada.

Burgett, Joseph. (2014). Can “Flipping the Classroom” Improve the Educational Experience in Construction Management Courses: A Case Study in Teaching HVAC Psychrometrics. Proceedings of the Associated Schools of Construction Annual Proceedings; Washington, DC.

Burgett, Joseph & Chini, Abdol. (2014). Energy Modeling as Part of a Comprehensive Residential NZE Strategy. Proceedings of the iiSBE Net Zero Built Environment 2014 17th Rinker International Conference. March 6-7, Gainesville, Florida.

Burgett, Joseph & Chini, Abdol. (2013). Reducing Residential Miscellaneous Electrical Loads with a Whole-House Switch. Proceedings of the Associated Schools of Construction Annual Proceedings; San Luis Obispo, CA.

FUNDED RESEARCH

2020 - Developing a DOT Specific UAS Simulator and a Flight Proficiency Exam. – Principle Investigator. \$123,960

2020 – Creating an SC Inter-Agency Drone Users Consortium (SCiDUC) to Foster Drone Research with State Agencies. – Principle Investigator. \$20,772. Sponsor: Pennell Center at Clemson University.

2019 – Rapid Deployment of Drone Technology and Software to Support SCDOT Operations. – Principle Investigator. \$125,015 Sponsor: SCDOT.

2019 – Creation of a KCI Drone Bridge Inspection Program. – Principle Investigator. Sponsor: KCI Technologies.

2018 – Unmanned Aircraft Systems Impact on Operational Efficiency and Connectivity. – Principle Investigator. \$44,000. Sponsor: USDOT.

2018 – The Viability of Using Unmanned Aircraft Systems (UAS) in Transportation Infrastructure Asset Maintenance. – Principle Investigator. \$49,893. Sponsor: SCDOT.

2018 – Certified Professional Constructor Online Preparation Course. – Principle Investigator. \$21,944. Sponsor: American Institute of Constructors.

2018 – Revised AC Exam Study Guide Practice Test. – Principle Investigator. \$1,896. Sponsor: American Institute of Constructors.

2015 – Provide Enhanced Preparation Material for the Associate Constructor Exam Phase Two – Principle Investigator. \$23,895. Sponsor: American Institute of Constructors.

2015 – Provide Enhanced Preparation Material for the Associate Constructor Exam Phase One – Principle Investigator. \$21,796. Sponsor: American Institute of Constructors.

2015 – University Research Grant Committee Project Initiation Grant – Co-Principle Investigator. \$8,500. Sponsor: University Research Grant Committee at Clemson University.

2014 – Department of Construction Science & Management Industry Advisory Board Faculty Research Grant - Interactive 3D Training Simulation for Electrical Code Violations – Principle Investigator. \$20,000. Sponsor: CSM Industry Advisory Board at Clemson University.

2014 – Pennell Research Grant - Improving the HERS Index's Model of Residential Miscellaneous Electrical Loads – Principle Investigator. \$5,000. Sponsor: Pennell Center at Clemson University.

2014 – AAH Faculty Research Grant - Alternative Methods of Modeling Residential Miscellaneous Electrical Loads – Principle Investigator. \$3,000. Sponsor: College of Architecture Arts and Humanities at Clemson University.

PRESENTATIONS

Associated Schools of Construction Annual Proceedings; Denver, CO. (2019) Optimal UAS Parameters for Aerial Mapping and Modeling. Proceedings of the Associated Schools of Construction Annual Proceedings

2019 Highway Engineers Conference (SCDOT); Columbia, SC. (2019) Drones and the SCDOT: Where we are and where we are going.

South Carolina Information Technology Directors Association; Columbia, SC. (2018) Use of Unmanned Aerial Systems to Augment Bridge Inspections.

Associated Schools of Construction Annual Proceedings; Minneapolis, MN. (2018) Perception of the AC Exam by Pass or Fail Status.

Associated Schools of Construction Annual Proceedings; Minneapolis, MN. (2018) Quantifying the Cache: The Premium for Solar Homes is Not Explained by Reduced Energy Costs.

Associated Schools of Construction Annual Proceedings; Minneapolis, MN. (2018) Discussion Round Table Leader for Improvement of the Instruction of Construction Estimating.

American Council for Construction Education; Atlanta, GA. (2016) Presentation of New Associate Constructors Study Guide and Online Preparation Classes.

Associated Schools of Construction Annual Proceedings; Provo, UT. (2016) Leveraging Immersion Technologies in Construction Management Education: A National Electrical Code 3D Simulation Tool.

Associated Schools of Construction Annual Proceedings; Provo, UT. (2016) Discussion Round Table Leader for Improvement of the Instruction of HVAC and Electrical Systems.

American Institute of Constructors Annual Forum; San Diego, CA. (2016) Presentation of Revised Associated Constructor Exam Study Guide.

15th International Conference on Construction Applications of Virtual Reality (CONVR2015); Banff, Canada. (2015) Using 3D Simulation to Improve Construction Management Education: A Pilot Study to Teach the NFPA70-National Electrical Code.

Associated Schools of Construction Annual Proceedings; Washington, DC. (2014) Can “Flipping the Classroom” Improve the Educational Experience in Construction Management Courses: A Case Study in Teaching HVAC Psychrometrics.

iiSBE Net Zero Built Environment 2014. 17th Rinker International Conference. Gainesville, FL. (2014) Energy Modeling as Part of a Comprehensive Residential NZE Strategy.

Associated Schools of Construction Annual Proceedings; San Luis Obispo, CA. (2013) Reducing Residential Miscellaneous Electrical Loads with a Whole-House Switch.

SERVICE

2019 – Present. Director and President of the South Carolina Interagency Drone Users Consortium (SCiDUC)

2019 – Present. CSM Tenure, Promotion and Review committee (member)

2019. CSM Department Chair Review Committee. (chair)

2018 – 2019. CSM Faculty Search and Screening committee. (member)

2019 – Present. CAAH Faculty Research and Development Program (member)

- 2015 – 2019. American Institute of Constructor Board Member
- 2015 – Present. AIC/CCC Associate Constructor Exam Writing Committee
- 2015 – 2019. ASC Region 2 Student Commercial Competition Coach
- 2019 – Best Presentation
 - 2018 – 3rd Place
 - 2017 – 2nd Place and Best Presentation
 - 2016 – 2nd Place and Best Presentation Shadow Competition
 - 2015 – 2nd Place and Best Presentation
- 2014 – Present. CSM Departments Faculty Honors and Awards Committee (chair)
- 2013 – Present. Faculty Advisor for AGC Student Chapter
- 2014 – 2015. College of AAH Faculty Honors and Awards Committee (member)
- 2016 – 2017. CSM Department Chair Search and Screening Committee (chair)
- 2015 – 2016. CSM Faculty Search and Screening committee.
- 2014 – 2015. CSM Department Chair Reappointment Committee (member)
- 2013 – 2014. CSM Bylaws Revision Committee (member)
2014. Faculty advisory for Dept. of Energy Student Challenge Home Competition. (subject matter expert award received at competition)

MEMBERSHIPS

- South Carolina Interagency Drone Users Consortium (SCiDUC)
- The Honor Society of Phi Kappa Phi
- American Institute of Constructors