From the Department Chair

Dear Alumni and Friends of the Department,

I hope this edition of “Forum” finds you well and looking forward to a productive and safe 2017. This past year the department celebrated its 50th year since the awarding of the first degrees in Building Science in May of 1966. Since that time, as of December 2016, 1,701 Bachelor of Science and 231 Master of Construction Science and Management degrees have been awarded.

Over the past year the enrollment in the undergraduate program has grown to the largest ever of 198 students. This is mainly attributed to the improving construction economy. For this same reason the number of graduate students (27) has remained about the same as last year. Of the 27, 16 are full time on campus and 11 are taking the program via distance learning technology. As for the faculty, Tony Wintz retired, Dr. James Smith moved back to Utah and accepted a faculty position at Brigham Young University, and the department hired a new tenure-track assistant professor – Dr. Ehsan Mousavi. Finally, a nationwide search was completed in late 2016 to fill my position beginning in July of this year. Many qualified individuals applied for the position, and a final selection will be forthcoming during 2017 spring semester.

Some of the other major department accomplishments, activities and events since the last newsletter are as follows:

- 100% of the graduating students seeking employment obtained permanent positions, and 100% of our majors seeking internships were also successful.
- The Commercial Construction and Design Build student competition teams placed second in the 2016 Associated Schools of Construction Southeast competition.
- The department sponsored a student competition team at the 2016 ABC National Competition in Dallas, Texas, and the 2017 National Association of Homebuilders in Orlando, Fla.
- The number of Corporate Partner companies increased from 38 to 43.
- 76 construction companies participated in the fall 2016 Clemson University Construction Career Fair, and another Career Fair will be help during the spring semester.
- The department, with the support of its Corporate Partners, conducted its first national Construction Symposium where more than 200 people participated.
- Work continued on the development of a fundraising campaign for a new facility for the department.

As I write my last issue of the “Forum,” I find myself looking back over the years in the department and all of the meaningful experiences I have had meeting and working with so many wonderful and positive people both within and outside of the university. It has been a real honor to serve with so many students, faculty, staff, alumni, administrators and others since coming to Clemson in 1983. While I will miss taking on new challenges for the benefit of the department and its stakeholders, I am confident that the new leadership, with the support of the department’s constituents, will move Construction Science and Management to a higher level of national and international prominence.

Besides the activities listed above, our faculty, students and staff continue to be engaged in a wide range of activities as highlighted in this edition of “Forum.” In addition, our Industry Advisory Board and Corporate Partners remain very active with various activities and events taking place over this academic year as noted in this newsletter. Finally, I would be remiss if I did not recognize all of you who continue to help to enhance the quality of education our students receive through your generous donations. Your continuing support and participation serve as a strong foundation for the success of our students, and we are forever grateful. I hope the best for all of you wherever your future endeavors may take you.

Roger W. Liska
Chair and Professor
Roger W. Liska, Ed.D., FAIC, CPC, FCIOB, PE

DR. LISKA’S TEACHING RESPONSIBILITIES THIS ACADEMIC YEAR include CSM 4500 – Construction Internship and CSM 8520 – Construction Management Research. Besides performing his responsibilities as department chair, he continues to serve as director of the Center for the Improvement of Construction Management and Processes.

During the past year, Dr. Liska continued to serve on the AIC Constructor Certification Commission, the American National Standards Institute Personnel Certification Accreditation Committee, the American Council for Construction Education (ACCE) Training Committee and is its representative to similar accreditation agencies in Canada, China and England. Dr. Liska also continues to serve on a U.S. Government task force to develop a professional job career series for “Construction Managers.”

In 2016, Dr. Liska received the National Construction Education Champion award from the National Center for Construction Education and Research and the first Mark Benjamin Lifetime Achievement Award from the American Council for Construction Education. His email address is riggor@clemson.edu.

Dennis Bausman, Ph.D., FAIC, CPC

DR. BAUSMAN CONTINUES HIS ROLE as the Construction Science and Management Endowed Faculty Chair and remains active in the CSM undergraduate program and the graduate programs for both MCSM and the Master in Real Estate Development (MRED). Dr. Bausman and Dr. Chowdhury, a professor with the Department of Civil Engineering, are in the final stage of completing a $380,000 research project for the SC Department of Transportation. The purpose of this research effort has been to: a) identify online training best practices, and b) develop an online training program for SCDOT’s contracting officers and program managers for professional services consultants. In addition, Dr. Bausman co-authored another paper related to this research effort, titled

Deborah Anthony

DEBORAH ANTHONY HAS BEEN WITH THE CSM DEPARTMENT FOR 15 YEARS and currently is serving as the administrative assistant and business/office manager for the department. She enjoys the interaction with students through advising, extracurricular activities, the constructor’s guild, graduation, and then as an alumni. She always looks forward to seeing past students come by the office, reading emails about newsworthy events, and providing support for the department. Deborah also works with future students and their parents through summer orientation by answering questions and concerns that they might have about either the program or the university. She provides support to both the faculty and administration, and works closely with the Industry Advisory Board and Corporate Partners. Her email address is adebora@clemson.edu.
“Current Practices of Design and Delivery of Online Training for Transportation Professionals at Public Agencies,” which has been accepted for publication in the *Journal of Professional Issues in Engineering Education and Practice.*

This past year Dr. Bausman co-authored a paper with Noel Carpenter, a recent graduate from our PDBE program, titled “Comparing Owner Perceptions vs. Performance Reality on Construction Management at Risk Public School Projects.” In addition, he co-authored a paper with Avinash Venugopal addressing “How U.S. Universities Intend to Meet Their Carbon Neutral Goals,” which has been accepted for publication in *The Professional Constructor,* the AIC Journal.

In January 2016, Dr. Bausman presented a white paper that he developed for the Academy for Healthcare Infrastructure with the National Institute of Building Sciences on “reducing initial healthcare capital costs.” This past year Dr. Bausman was awarded a grant from AGC’s Education and Research Foundation for development of a case study on mitigating subcontractor risks. Dr. Bausman continues his service as National Chair of the Board of Governors for the Constructor Certification Commission. In addition, he continues to serve on the Board for the American Institute of Constructors and on several peer review boards. Within the CSM Department, Dr. Bausman chairs the Tenure, Promotion & Reappointment Committee and represents the department on the College of AAH Research Committee. He also serves on a number of MCSM graduate committees and continues his service as a neutral for the American Arbitration Association. Dr. Bausman’s email address is dennisb@clemson.edu.

Joe Burgett, Ph.D., CPC

**THIS IS DR. BURGETT’S FOURTH YEAR AT CLEMSON**

University as a tenure-track assistant professor. He continues to teach Environmental Systems 1 and 2 and will be teaching Contract Documents for the first time this spring. Dr. Burgett is the faculty advisor for the AGC student chapter and served as coach of the Associated Schools of Construction (ASC) Commercial Construction student competition team that came in second in the ASC Southeast Regional Competition.

This past year Dr. Burgett published six peer-reviewed papers that ranged in topic from enhanced pedagogy teaching techniques, to attracting industry to academia and improvements to residential energy modeling. He also drafted the revised Associate Constructor (AC) certification examination study guide along with accompanying online training tutorials. This past year he has worked on three funded research projects, one of which includes the use of ultra-wideband sensors to detect safety violations where he serves as CoPI with Dr. Jason Lucas. Dr. Burgett was also awarded the CSM Endowed Faculty Professorship. Finally, Dr. Burgett served as the chair of the Department Chair Search and Screening Committee and represents the department on the College Student Awards Committee. Dr. Burgett’s email address is jmburg@clemson.edu.
Faculty and staff News

Shima N. Clarke, Ph.D., AIC, PE

DR. CLARKE CONTINUES TO SERVE AS THE DEPARTMENT’S Graduate Program Coordinator. Her responsibilities in this administrative position include representing the CSM Department graduate program to College of AAH and University entities as well as outside university constituents.

During the 2015-2016 academic year, Dr. Clarke taught the structures courses (CSM 2010 and CSM 2020) Soils and Foundations (CSM 3030) and CSM 4980 — Current Topics in Construction (student competition class) at the undergraduate level. At the graduate level, she taught CSM 8900 — Directed Studies and CSM 8890-Special Problem. With help from industry representatives and CSM faculty, she prepared and coached four CSM students and two ARCH students to compete in the 2016 Associated Schools of Construction Southeast Regional Design-Build Student Competition, which took place in Atlanta, Ga. The team won Second Place award.

In terms of scholarly activities, Dr. Clarke served as Co-Investigator on the “Integrated Design & Construction Certificate Program Development” grant and co-developed two of the four courses for the Integrated Project Delivery (IPD) graduate certificate program. She also served as the Principal Investigator on the “GOALI: An Engagement of Academia, Industry, and Organizations” grant funded by A+CA Architecture + Construction Alliance. For this grant she collaborated with David Allison and Byron Edwards of Architecture, James Smith of BYU, Javier Irizarry and Pardis Pishdad-Bozorgi of Georgia Tech, and Chema de la Garza of Virginia Tech. The grant team developed and submitted a proposal to NSF for a symposium and workshop on setting a collaborative and multi-disciplinary research agenda and educational curriculum.

In terms of service, Dr. Clarke is the CSM Department representative to the American Council for Construction Education (ACCE) and serves on ACCE’s Guidance and Standard Committees. She continues to serve on the DBIA Student/Academia Outreach. Dr. Clarke’s email address is shimac@clemson.edu.

David J. DeVita

Mr. DeVita teaches CSM 4110 – Construction Safety – during the fall semester. This course is an in-depth class covering the ethical, moral, legal and financial reasons why safety is paramount for contractors to embrace and to develop a strong safety culture within their organization. Mr. DeVita has also included, as part of the curriculum, OSHA 1926 Construction Standards. At the end of the semester, students who complete all the requirements will receive their OSHA 30-hour card.

Mr. DeVita continues to be the owner and President of Carolina Safety Consultants (CSC) located in Greenville, SC. With nearly 30 years of safety and health experience, Mr. DeVita has developed a very successful and somewhat unique process to assist companies in their safety efforts. CSC has placed temporary safety consultants on projects for various contractors in the Southeast. Some of the larger projects include BMW, Boeing, Walbridge, Fluor, RFW, Holder, and DPR. CSC also works with many medium and small size contractors. Mr. DeVita continues to grow CSC in non-construction areas that include small, medium and large manufacturing and industrial plants. Mr. DeVita also develops strategic partnerships with employment agencies, other safety professionals and human resource consultants to provide the best overall safety and health services to clients. Finally, Mr. DeVita has accepted a temporary position in safety management on the San Francisco International Airport project. You can contact Mr. DeVita at ddevita@csc-llc.net.


Jason Lucas, Ph.D.

DR. LUCAS IS A TENURE-TRACK ASSISTANT professor in Construction Science and Management. He taught CSM 2030 Materials and Methods of Construction I and CSM 1000 Introduction to CSM in the fall and will be teaching CSM 1500 Construction Problem Solving and CSM 2050 Materials and Methods of Construction II in the spring. Dr. Lucas is a member of the American Institute of Constructors (AIC) Executive Committee and serves as editor of their professional journal, The Professional Constructor. Dr. Lucas also serves as the department’s Undergraduate Internship Coordinator to track the progress of students meeting their 800 hours of internship experience for graduation.

Dr. Lucas continued to work on his research agenda this past year and is in the process of having published several conference and journal papers. Furthermore, he presented his work this past year in Puerto Rico at the Construction Research Congress held in May in San Juan and also at the International Symposium for Automation and Robotics in Construction, which was held in July at Auburn University. Dr. Lucas is PI for a collaborative grant sponsored by the Pennell Center to explore issues related to construction personnel trusting in a Building Information Model’s accuracy and is also conducting a project exploring the use of immersive virtual reality in education and the affects VR has on student perception of space and building assembly as part of the Industry Advisory Board’s Faculty Research Development Grant.

Finally, Dr. Lucas continues to serve as the faculty advisor to the NAHB Student Chapter and is coaching a competition team of junior and senior students that prepared a proposal during the fall semester to be presented during the NAHB’s Residential Construction Management Competition in January at the International Builders’ Show in Orlando. Dr. Lucas’s email address is jlucas2@clemson.edu.

Ehsan Mousavi, Ph.D.

DR. MOUSAVI JOINED THE CSM DEPARTMENT as a tenure-track Assistant Professor. He is teaching CSM 3510 and CSM 3530, the undergraduate Construction Estimating courses. Dr. Mousavi is the faculty advisor for the ABC student chapter and coach of the ABC student competition team that competed at the annual ABC national student competition last year in Dallas, Texas.

In the area of scholarly activities, Dr. Mousavi is pursuing two areas of research. The first is healthcare facilities design and construction with the objective of minimizing healthcare associated infections (HAIs). He is collaborating with Dr. Allison of the Architecture+ Health program to apply for a funded grant from the National Institute of Health (NIH). The second research area is utilizing computer simulations and eye-tracking techniques to improve Construction Science and Management students’ learning outcomes.

Dr. Mousavi has submitted two papers for review to peer-reviewed publications since he joined the CSM Department. He also was awarded a $68,000 grant by the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE) to conduct an academic research to support Facilities Guideline Institutes/ASHRAE Standard 170. Dr. Mousavi also serves as a corresponding member in ASHRAE Technical Committee 9.6 for healthcare facilities, and he is also a member of the American Society of Healthcare Engineers (ASHE). Dr. Mousavi’s email address is mousavi@clemson.edu.
CHRISTINE A. PIPER, Ph.D.

DR. PIPER CONTINUES TO TEACH CSM 3520 – Construction Scheduling, CSM 4530 – Construction Project Management, and various CSM graduate courses. In addition, she continued developing an asynchronous online course called “Introduction to Modular Construction,” which will be offered to the general public for continuing education units. The course is based on and uses the book Introduction to Modular Construction. The course is planned to be available in March 2017. Dr. Piper also wrote a case study for the National Institute of Building Sciences Off-Site Construction Council’s Whole Building Design Guide Process (WBGD) documenting the off-site fabrication of bathroom pods for The Christ Hospital Joint and Spine Center in Cincinnati, Ohio, that was constructed by Messer Construction Company.

Dr. Piper attended the World of Modular Convention in San Diego, Cal., where she received the 2016 “Modular Building Fellow” award from the Modular Building Institute. This award recognizes the efforts of an individual in promoting and advancing modular and offsite construction in an academic or institutional setting. The Modular Building Fellow Award is awarded for dedication, thoroughness, professionalism, and interest in the modular building industry.

Her paper “Is It Cheating If Nobody’s Watching? Conflicting Beliefs about Dishonesty in Online Learning” was published in the International Academic Forum’s special journal that brings together a selection of the most interesting contributions from its education conferences with respect to discussion of surrounding Higher Education and Learning (http://iafor.org/the-iafor-academic-review-volume-2-issue-2/). She also has another paper in press. In addition, Dr. Piper conducted a Blueprint Reading Workshop for NAWIC and affiliates on the Clemson University campus.

Finally, Dr. Piper serves on the Graduate Student Grievance Committee, the CSM Tenure, Promotion and Review (TPR) Committee, and is faculty advisor for the department’s Sigma Lambda Chi (SLC) chapter as well as the Clemson University Construction Women (CUCW). She reviewed two papers for the Associated Schools of Construction Journal and Proceedings. Her email address is cpiper@clemson.edu.
Department News

Industry Department Awards

THE DEPARTMENT WILL PRESENT ITS TWO NEW INDUSTRY AWARDS at its spring Industry Advisory Board meeting on February 8, 2017, along with recognizing the 2017 department student award winners.

Construction Hall of Fame Award

The Construction Hall of Fame Award recognizes the accomplishments of those who have distinguished themselves throughout their careers in construction. Nominees must be recognized for their contributions to construction of quality facilities and have the esteem of their peers, be currently active in their profession, have served in leadership positions in construction industry organizations, have been active in their community and have supported the CSM Department. He or she need not be a graduate of the CSM department. The 2017 award recipient is Bill Caldwell.

BILL CALDWELL — With a construction industry career spanning more than 40 years, Mr. Bill Caldwell has held various executive operations and sales management positions in both the general contracting and mechanical subcontracting fields. Bill assumed the role of President & CEO of Waldrop, Inc. in December 2009 following five years as Waldrop’s Vice President of Operations. Soon after joining the firm, Caldwell spearheaded a strategic initiative to expand Waldrop’s services, market sectors and geographic footprint that yielded significant growth for the firm. In less than five years, Waldrop’s annual business grew by threefold — significantly increasing the firm’s income, equity, and shareholder value. Under Caldwell’s leadership, Waldrop became the first mechanical contractor in South Carolina to implement a registered apprenticeship program for its employees. The company also celebrated an impressive safety milestone, achieving 1.7 million safe man-hours without a lost-time accident during a four-year period.

Bill received a B.S. Degree in Business Administration from the University of South Carolina. He is active in a variety of professional and civic roles, and speaks to industry and collegiate groups about the construction industry. Some of his recent past professional affiliations includes serving on the Board of the Carolinas ABC as a member, Vice Chair and Chair. In addition, he has served in various roles with the Mechanical Contractors Association of South Carolina. In terms of community involvement, some of Bill’s major accomplishments include holding leadership positions on the following organizations boards: Boys & Girls Club of the Upstate, Palmetto Health Baptist Easley Foundation, First United Methodist Church, Easley (SC), and the Spartanburg Area Chamber of Commerce.

Bill has also been very active with Clemson University’s Construction Science and Management Department over the past 10 years. Currently he serves on the department’s Industry Advisory Board and is the Corporate Partner representative on its Executive Committee. In this role Bill took the leadership to develop and conduct the IAB’s first Construction Industry Symposium. Bill also serves as a guest speaker for construction classes, hosts field trips to his company and projects and serves as a consultant to student groups. Finally, Bill’s company is a Corporate Partner.
Department News

Distinguished Alumnus Award

The Distinguished Alumnus Award is given annually to an alumnus of Clemson University’s Department of Construction Science and Management who graduated a minimum of 10 years prior to the award. Nominees must have distinguished themselves since graduation in a construction field and have demonstrated consistent support of the CSM Department since graduation. The 2017 winner is Michael Nieri.

MICHAEL NIERI—Shortly after graduating from Clemson University in 1986 with a Bachelor of Building Science, Michael P. Nieri started building homes in the Columbia, SC market. Starting fresh, Michael saw a need and wanted to do something better than what he saw others delivering in the marketplace. He envisioned well-built, affordably priced homes for first-time homebuyers, and he set about designing and building these new homes with his signature style and quality. Today, his quality craftsmanship has been showcased in some of the finest homes throughout SC, while Great Southern Homes is fast approaching over $200 million in sales while employing fewer than 100 people. For his innovative leadership in his industry and community, Michael has been recognized twice as the “Builder Member of the Year” by the Building Industry Association of the Midlands (BIA): the first time in 2007 and most recently this past year in 2015.

Even as the business has grown, Michael remains deeply committed to charitable works and building better communities. This is demonstrated by the Nieri family’s foundation and the Great Southern team who together support numerous charitable activities including The Boys Farm, the Clemson University Foundation, Cardinal Newman Catholic School, SC Flood Relief and other community building projects. Another example is that Michael currently serves as the 2016 President of BIA’s Charitable Foundation where he helps guide the foundation in community service and donations.

In addition, Michael has and continues to support the Construction Science and Management Department in various ways. He is a member of the Industry Advisory Board, serves as a guest speaker to various student groups and has hired department majors for summer internship and permanent positions. Finally, his company has donated funds in the past to support department activities and events and is currently a Corporate Partner.

STUDENT AWARDS

Each year the department faculty selects the department’s student annual award winners. The winners for the 2017 awards, which will be presented at the April 7, 2017 College of AAH Honors and Awards ceremony, are as follows:

AGC of the Carolinas Citation for Merit – Clayton Cheek in recognition of outstanding academic achievement, good character and professional promise.

AGC Citation for Achievement – Michael Gensler – in recognition of highest professional promise, good character and academic achievement.

Ralph Edward Knowland Outstanding Graduate Award – Ahmad Amiri – who, over the past year, exhibited the greatest contribution to the department based on a high level of performance and participation in the graduate program and school activities.
The CSM Department’s first annual Construction Industry Symposium was held in Charlotte, N.C., on October 18, 2016. Leaders and speakers from throughout the Southeast emphasized collaboration, innovation, and workforce development in reshaping an industry undergoing positive disruption based on new technologies. The event consisted of two keynote speaker presentations and two panels of nationally recognized construction professionals.

THE KEYNOTE SPEAKERS AND THEIR TOPICS WERE:

• Anirban Basu, Chairman & CEO, Sage Policy Group, Inc. spoke on the changing national construction economy.

• James M. Benham, Co-Founder & CEO, JBKnowledge, Inc. spoke about how drones, sensors and integrated apps are rewriting all of the rules in construction.

THE MORNING PANELISTS AND THEIR TOPICS CONSISTED OF:

• Today’s Industry Challenges from an Owner’s Perspective – Daniel Groves, CEO of Construction Industry Resources and Director of Operations and workforce consultant for the Construction Users Roundtable (CURT).

• Today’s Industry Challenges from a Designer’s Perspective – Phil Kuttner, AIA, LEED AP, Chief Executive Officer, Little, a multidisciplinary design firm with offices in Charlotte, Durham, Los Angeles, Orlando, Washington, D.C. and Beijing.

• Today’s Industry Challenges from a Contractor’s Perspective – Mac Carpenter, President, BE&K Building Group, a Carolinas-based company offering a range of construction management services and project delivery methods nationally in key sectors.

THE EVENT CONCLUDED WITH THE FOLLOWING PANELISTS AND ASSOCIATED TOPICS:

• Tomorrow’s Workforce – How Different Will It Be? – Dr. Mittie Cannon, Workforce Developer, AMEC Foster Wheeler.

• Project Delivery Processes of the Future – Mark Whitson, SE Regional Leader, DPR Construction.

• Executive Vice President & General Manager, Steve Skinner, Skanska USA.

More than 200 attendees learned about new products in use today, including affordable drones that survey construction sites, smart tools that remember your preferred settings and have embedded location devices for easy retrieval, tablet applications that compare site progress to blueprints, and virtual reality products that let clients see their project in 3D (to scale) before the building starts. Based on the success of the event, the second annual construction industry symposium is currently in the planning stage. If interested, please contact the CSM Department office.
Undergraduate and Graduate Programs Undergo Major Curriculum Changes

DUE TO CHANGES IN THE AMERICAN COUNCIL FOR Construction Education accreditation curriculum requirements, with input from the department’s various constituents, the following major changes to the undergraduate program will be implemented beginning in the fall of 2017.

• CSM 1500 – Construction Problem-Solving – Combine with CSM 1000.
• Economics – Only require one course (instead of two) in Microeconomics and replace other with a free elective.
• CSM 3030 – Soils and Foundations – Remove the course but retain some of the important concepts and include in the revision of CSM 2020 – Structures II.
• CSM 3060 – Add a new course entitled Emerging Technologies in Construction.
• CSM 3070 – Add a new course entitled Sustainability in Construction.
• Major Requirements (2 business and 2 other) Courses – Reduce from 4 to 2 and replace the 2 with free electives.

In addition, based on feedback received from various parties including alumni of the MCSM graduate program, the following changes will be made to the program beginning in the fall of 2017.

• The program will be reduced from 36 to 30 credit hours so students can complete it in a shorter amount of time.
• All students will be required to complete all six program-core courses.

Clemson University Construction Education and Research Facility Planning Continues

AT THE FALL 2016 INDUSTRY ADVISORY BOARD meeting, Doug Hunter and Donna Incropera Ruter provided an update on the progress being made to obtain approval from the Provost Office to move forward on the effort to raise funds for a new facility. Donna reported that the Provost has approved moving forward with the initiative. Since the IAB meeting, the Provost Office convened a meeting with the Deans of Engineering and AAH along with the Chairs of Civil and Environmental Engineering and CSM, and Director of Architecture to begin the effort to develop a case statement that can be used by the Development Office to conduct a feasibility study for a fundraising effort for the new facility. At that meeting a Provost Facility Planning Task force was organized consisting of the leaders of the various participating academic units, an industry representative from each, and representatives from the Development and Provost offices. The first meeting of these individuals will take place early in 2017 to develop the final case statement.

Collaborative Activities with School of Architecture

As part of the CSM Department’s strategic plan to increase its collaboration with related professional disciplines, the following activities have taken place over the past year:

• Freshman students in Architecture, CSM and Landscape Architecture met three different times together to learn about each other’s programs, to learn about their disciplines from practicing professionals and to engage in a multi-disciplinary team project for the purpose of learning the fundamentals of effective collaboration.
• The four graduate courses making up the joint Architecture/CSM Graduate Certificate on Integrated Project Delivery are currently going through the university approval process as is the effort to obtain approval for the Certificate Program from the Board of Trustees and Commission of Higher Education. The first course in the series will be taught during the 2017 spring semester.
• Discussions have been initiated with the Director of the School of Architecture to develop a joint elective course at the senior level around the design-build process for Architecture and CSM students.

Clemson Summer Scholars Program

DURING THE SUMMER OF 2016, DR. CLARKE CONDUCTED a class for rising 10th -12th graders entitled, “Construction Management-Build Your Future.” The course was designed to introduce high school students to construction management and the built environment by combining concepts from construction science and management, design, and engineering disciplines. Students were introduced to Building Information Modeling and its use in design, estimating, scheduling, clash detection, and construction; laser printing and its use in design and construction; and drones and their use during construction. The students visited five different jobsites under construction on the Clemson campus and spoke with project managers, superintendents, safety inspectors, and field engineers. The students learned the basics of soft skills (e.g., conflict resolution, communication, critical thinking, etc.) for managing the wide range of participants involved in the construction process. At the end of the camp, student teams competed in a toothpick bridge competition to demonstrate their soft skills. The camp would not have been successful without support from Roger Liska (CSM), Joe Burgett (CSM), Brian Leounis (ARCH), Neal Workman (Trehel), Brian Scott (Upstate Aerial), John McIntire (Capital Projects), Kevin McDonough (Capital Projects), Charles Stuart (Hood), Steve Davis (Hood), Mike Parker (Capital Projects), Robert Fernandez (Holder), Bill Muth (Capital Projects), Bobby Langdale (Turner), Sam Zanca (Capital Projects), Paul Borick (Capital Projects), Joey Weir (DPR), Bill Russell (DPR), and Robert Pavelka (DPR).
**Student Activities**

**ASSOCIATED BUILDERS AND CONTRACTOR STUDENT CHAPTER**

The ABC Student Chapter had yet another eventful fall semester. This year’s chapter has more than 30 members who enjoyed several events this fall. The first chapter event was the ABC of the Upstate’s “Meet the Generals.” For this event, chapter members assisted in registration and checking in many of the general contractors, subcontractors, suppliers and vendors in Greenville, S.C. The next activity was a service project with Pickens County Habitat for Humanity, where chapter members were involved in the construction of a porch and with some other parts of a home. This was a great opportunity for chapter members to gain hands-on experience and utilize their knowledge to bring a team approach to benefit the community. The last event was a jobsite visit to the Clemson Football Operations Complex. For the spring semester, the ABC Student Chapter plans to assist the Carolinas ABC with more events, as well as participate in two service projects and make a jobsite visit or two.

![Constructor Guild Officers](image1)

**CONSTRUCTORS GUILD**

During fall 2016 semester, the Constructor’s Guild conducted three very successful events. The first was a social corn-hole tournament held at the beginning of the semester. This event had about 20 teams of two that participated for customized Yeti cups. Next members of the Guild participated in a service event through Habitat for Humanity of Pickens County with members of the NAHB student chapter. Lastly, there was an educational event held in November. This event focused on how practicing constructors went about starting their own businesses. The speakers were Michael Nieri with Great Southern Homes and Neal Workman with Trehel Corporation. This was a very informative session with approximately 65 students participating. For the spring semester, the Guild will again conduct one social event hopefully involving alumni, a service event helping a local family with Habitat for Humanity and an educational event at the end of the semester.

![Constructor Guild Officers](image2)

**ASSOCIATED GENERAL CONTRACTORS OF AMERICA STUDENT CHAPTER**

Clemson’s student chapter of the Associated General Contractors of America (AGC) had a great start to the year. With almost 60 members, the chapter conducted some great events during fall semester. The first event in which members of the student chapter participated was the Carolinas AGC Chapter luncheon. This event was held in September and was a great opportunity for some of the chapter members to meet members of the Carolinas AGC. The next event was a site visit to Holder’s Douthit Hills project on the Clemson campus. This was a great learning experience because of the different activities there. The chapter then participated in a service project for the Pickens County Habitat for Humanity in late October. The chapter hosted its last fall semester event by going to Fort Mill to tour Choate’s Red Ventures project in November. During the spring semester the chapter plans on partnering with AGC’s Young Leaders in a Habitat for Humanity project and visiting more job sites.

![AGC Student Chapter Officers](image3)

![ABC Student Chapter Officers](image4)
Student Activities

AGC Student Chapter members visit Choate Construction Red Ventures Project.

Overseas Activities

Jack Carlile, Chandler Clodfelter, Reid Hillis and Morgan Hunter spent the fall 2016 semester studying in the construction management program at the University of South Australia. Melody Bazzle will be attending classes in the construction management program in the spring 2017 semester at Leeds Beckett University.

CSM Students attending Carolinas AGC Chapter luncheon in Greenville
The Choate Family and Segars Family Scholarship Award Dinner

Back row (left to right) - Roger Liska, Pride Collins, Kal Daniel, Alexander Osteen, Anne Barr, Christopher Goudie, Tim Heichelbech, Stephen Parham, Ross Bennett, Michael Boylan, Donna Carver, Hack Trammell, Kevin Baynard. Front row (left to right) - David Monroe, Shannon Consolo, James Spencer, Drake Young

NATIONAL ASSOCIATION OF HOME BUILDERS STUDENT CHAPTER

This has been a very busy year for the NAHB Student Chapter. Mr. Bill Collins, the Chief Building Inspector for the City of Clemson, came to talk to chapter members about how important contractor and inspector relationships are. Next, chapter members volunteered to help Pickens County Habitat for Humanity at one of its projects doing some roofing and miscellaneous interior and exterior work. In November the chapter partnered with the Greenville HBA and built a small gate and fence around a garden for Thrive Upstate, formerly Greenville County Special Needs and Disabilities Board. Also in November, members of the chapter attended an event presented by Great Southern Homes in Simpsonville. The chapter looks forward to teaming up with the Greenville HBA once again in the spring to work on a project with MARYS House, which is the Ministry Alliance for Regaining Your Safety. In January, the NAHB Student Competition team is heading to Orlando to compete in the Residential Construction Management Competition.

NAHB Student Chapter Officers left to right – Steven Buring (Treasurer), Michael Gensler (Secretary), Adrian Bordon (President), Chris Goudie (Vice President)

Clemson University Construction Women

The 2016 fall semester for Clemson University Construction Women was successful in bringing more women from the CSM Department together. At the beginning of the semester CUCW had a bowling social. At the social the women networked and discussed what their summer internship experiences were like. The turnout was the largest that the CUCW has had for an event in recent years. Every female student in the department attended, and female faculty also attended the bowling social. In October the women wrote a formal letter to the corporate partners about how they could attract and retain women in internships at their company. During this event the women shared ideas and collaborated about what the best qualities of a potential employer would be. In December CUCW participated in a jobsite tour of Clemson’s new football facility. It was a great opportunity for the women to see the construction that is happening on the campus. We are really excited about the direction that CUCW is going in.

CUCW Fall Semester Officers from left to right – Carli Hurd (President) and Tajee Turner (Vice President)
Student Activities

CSM Graduate Students

As shown in the below picture, during the past year, the department’s master degree students joined in participating in various activities as a way of getting to know each other and the faculty.

Department Student Advisory Committee

The Department Student Advisory Committee is comprised of the officers of the Constructors Guild, the presidents of the construction association student chapters and representatives of the four class-year levels and the graduate program. The committee meets with Dr. Liska on a monthly basis to plan future department student activities and to review and provide feedback on how to ensure that students are receiving the highest quality education possible. Some of the events the committee is involved in are the planning and delivery of construction professional education programs for the students, organizing field trips, and planning and conducting the department-wide student, faculty and alumni events.

The 2016 -2017 Department Student Advisory Committee is comprised of the following students representing the noted position: Guild Officers – Michael Henry – President, Aaron Coffey – Vice President, Carli Hurd – Secretary, Jesse Looper – Treasurer; Construction Association Student Chapter Presidents – Kal Daniel – ABC, Brady Coker – AGC, Adrian Bordon – NAHB, Carli Hurd – CUWU; Undergraduate Class Representatives – Freshmen – Noah Fuller and Mason Kingery, Sophomores – Carli Hurd and Tajee Turner, Juniors – Brady Coker and Jesse Looper; Senior – Aaron Coffey and Kal Daniel; Graduate Class Representatives – Abhya Sinha and Mohammad Selahi.

Student Competitions

ASC Regional Student Competition

Teams from across the Southeast gathered in Peachtree City, Ga., on November 1-3, 2016, to participate in the 2016 Associated Schools in Construction Region 2 student competitions. Clemson CSM Department sponsored two student teams – one in the Commercial Construction category and the other in the Design-Build category. The competition is a true-to-life simulation of how commercial and design-build projects are won. It’s a great learning experience for the students and an opportunity for employers to see how the students perform under real-world conditions. This year Clemson, Auburn, Georgia Southern, Florida, Virginia Tech, Mississippi State, Appalachian State and Kennesaw State were among the institutions that participated in the competitions. Both Clemson teams’ hard work paid off as both were awarded 2nd place in their respective competitions.
ABC 2016 Construction Management Competition

The 2016 ABC Construction Management Competition held in Dallas, TX, was based on an actual RFP for a university medical center that was built in El Paso, TX. Student teams from across the country developed proposals that included a detailed estimate, schedule, safety plan, quality control plan and project management plan. The competition was conducted in three phases: proposal development, addenda, and presentations. The Clemson University team participated in the proposal development stage and worked on the addenda presented by the judges during the last day of the competition. Students also participated in the social events (e.g. national professionals networking receptions) and benefitted from networking with their peer students, academic advisors, industry representatives. The students agreed that having the opportunity to combine and coordinate material from different courses was very beneficial in preparing them for the industry. The student team’s participation and experience were made possible by generous support from ABC of the Carolinas, the Department of Construction Science and Management and its Industry Advisory Board.

NAHB National Student Competition

Six CSM students participated in the National Association of Home Builders (NAHB) Residential Construction Management Competition (RCMC) held in Orlando, Fla., during the International Builder Show (IBS) in January. The students received the problem statement for the competition in early September and had the remainder of the fall semester to complete a 100-page proposal that included: market analysis, site development, product selection, green initiatives, construction management plan, marking strategy, complete estimate, schedule, and financial analysis. The team worked over the course of the fall semester by visiting the site outside of Atlanta, consulting with various faculty, and working with multiple industry professionals to prepare their proposal and presentation. The team then traveled the RCMC in Orlando where they presented their proposal to a panel of judges that represented various professionals within the residential industry. The team ranked 8th out of 35 presenting teams in the competition.

ASC Southeast Regional Design-Build Student Construction Competition

ASC Southeast Regional Design-Build Construction Competition Team from left to right – front row – Will DeAugustino, Tajee Turner, R. J. Wilson, Steven Buring, Kevin Hassett, Dr. Shima Clarke, back row – Doug Shay, Hamilton Martin, Chris Goudie
Industry Activities

Center for the Improvement of Construction Management and Processes

The work of the Center for the Improvement of Construction Management and Processes continues to prosper. During the past year, department faculty completed work on some of their research and had a total of 11 papers published on their efforts in national peer-review journals and made a total of nine presentations of their research at national and international construction conferences. Finally, a few of the faculty developed and conducted four professional development courses for several of the CSM Department’s Corporate Partners and industry organizations.

The Center for the Improvement of Construction Management and Processes continues to seek applied research and professional development opportunities. The center is staffed with qualified individuals, including the department faculty, who are ready to work with you or your company to help improve project or organization performance. These services include evaluating existing processes and recommending improvements, conducting applied research projects, and developing and/or delivering continuing education short courses. If you are interested in finding solutions to problems through applied research or continuing education courses, please contact Roger Liska. Also please refer to the center’s website at www.cicmp.org.

Industry Advisory Board Activities

The Industry Advisory Board met on October 5, 2016, and will be meeting again on February 8, 2017, on the Clemson University campus. All IAB meetings are held the same day as the University Construction Industry Career Fairs. Some of the key accomplishments of the Board this past year were:

- Began work to revise its bylaws to allow for the staggering of the terms of the Executive Committee members.
- Continued supporting the capstone course student competition prizes and faculty research grant.
- Finalized the development and opened applications for the IAB CSM Student Internship Leadership award.
- Continued working with Clemson University academic and development representatives to raise funds for a new Construction Education and Research facility, which will house the CSM Department.
- Conducted the first national construction symposium on October 18, 2016, in Charlotte, N.C.
- The second CSM Alumni Golf Tournament is being planned for April 27, 2017 – location to be determined.

Membership on the IAB is opened to all individuals interested in supporting the CSM department. The minimum annual donation to become an IAB member is $100 and $25 a year for the first three years following graduation for recent graduates of the CSM undergraduate and graduate programs. To join go to (https://cualumni.clemson.edu/give/construction-science-and-management) and on this page access the IAB Operating Account site.

The IAB is led by an executive committee consisting of the following individuals and their role:

Doug Hunter, IAB Chair
Paul Mashburn, IAB Vice Chair
Chris Woods, IAB Secretary
Stephen Foushee, Chair, IAB Alumni Development Committee
Kenny Garner, Chair, IAB Curriculum Committee
James Britton, Chair, IAB Facilities Committee
Laurie Gregory, Chair, IAB Development Committee
Bill Caldwell, Corporate Partner Representative
Chris Moore, ABC Representative
Tim Heichelbech, AGC Representative
Todd Usher, NAHB Representative

Doug Hunter, Senior Project Manager at Holder Construction
Corporate Partner Program

Clemson’s CSM Corporate Partners is a group of leading construction industry firms that collectively are dedicated to “raise the bar” of the educational experience of the students at Clemson. Representatives from each member firm work hand in hand with the school’s faculty and staff to ensure that Clemson’s Construction Science and Management students obtain the best industry education and have the opportunity to become solid candidates for employment upon graduation.

By spending time with the students and faculty, developing creative ideas, sharing their real life industry experiences in the classroom, and contributing their financial resources to the program, Clemson’s CSM Corporate Partners stand tall in building the foundation for the future of the industry. The Corporate Partners’ commitment to enhancing the student’s educational experience is making a positive difference to the overall growth and enhancement of the Construction Science and Management learning experience at Clemson. A list of current Corporate Partners are noted below.

For more information on becoming a Corporate Partner, please call or email Roger Liska at 864-656-3878 (riggor@clemson.edu) or Bill Caldwell (who serves as the Corporate Partner representative on the Industry Advisory Board Executive Committee) at 864-578-7252 (bcaldwell@waldropoinc.com).

Current Corporate Partners and Representatives:

Allan Myers, Worcester, PA – Aaron Myers
Baker Concrete, Atlanta, GA – Larry Beasley
Balfour & Beatty, Charlotte, NC – Taylor Bredow
Brasfield & Gorrie, Kennesaw, GA – Ben Barfield
Carroll Daniel Construction Co., Gainesville, GA – Chris Erwin
C.F. Evans Construction, Orangeburg, SC – David Summers
Choate Construction Co., Atlanta, GA – Tim Heichelbech
Coakley & Williams Construction Inc., Gaithersburg, MD – Terry Coakley
Contract Construction Co., Ballentine, SC – Kyle Farley
DPR Construction, Atlanta, GA – Chris Bontrager
Eldeco Inc., Greenville, SC – Allen McKinney
Fairview Builders LLC, Travelers Rest, SC – Chris Hamblen
Flur Corp., Greenville, SC – Kenny Garner
Fortune-Johnson, Norcross, GA – Brett Fortune
Gilbane Building Co., Columbia, SC – Will Lignon
Great Southern Homes, Columbia, SC – Mike Nieri
H.G. Reynolds, Aiken, SC – Ryan Reynolds
Harper Construction Co, Greenville, SC – Tom Fuduric
Holder Construction Co., Atlanta, GA – Doug Hunter
Hood Construction, Columbia, SC – Charles Stuart
JE Dunn Construction Company, Atlanta, GA – Brad Stolz
Juneau Construction Co., Atlanta, GA – Eileen Charron
M.B. Kahn Construction, Columbia, SC – Brett Hahulski
Mashburn Construction, Columbia, SC – Paul Mashburn
McCarthy Building Companies, Atlanta, GA – Sam Stiteler
Metromont, Greenville, SC – Steve Babcock
MetroPower, Inc., Greer, SC – Chris Moore
Moss & Associates, Fort Lauderdale, FL – John Boniface
Paxent Co., Crofton, MD – Skip Gardiner
Robins and Morton, Brentwood, TN – David Skipper
Rogers Builders, Charlotte, NC – Diego Montes
Rogers Group, Inc., Greer, SC – Kevin Goemaat
SteelFab of South Carolina, North Charleston, SC – Rob Rutherford
T.D. Farrell Construction Company, Alpharetta, GA – Tim Farrell
The Whiting-Turner Contracting Co., Charlotte, NC – Chris Woods
Thompson Construction Group Inc., Sumter, SC – Janice Poplin
Trident Construction, Charleston, SC – Todd Bulwinkle
Turner Construction Co, Charlotte, NC – Jeff Owens
Walbridge, Charlotte, NC – Chris Morgan
Waldrop Mechanical Services, Spartanburg, SC – Bill Caldwell
WBG Mechanical Contractors & Engineers, Columbia, SC – Carroll Heyward
Yeargin Potter Smith Construction, Greenville, SC – Laurie Gregory
MAJOR GENERAL DONALD E. (ED) JACKSON, JR. assumed responsibility as the Deputy Commanding General for Civil and Emergency Operations, United States Army Corps of Engineers on August 12, 2015. In this role he is responsible for the execution of all Army Civil Works missions to include: navigation, flood risk management, aquatic ecosystem restoration, hydropower, environmental stewardship, recreation, and water supply. In addition, MG Jackson is responsible to coordinate and provide federal engineer support to the Federal Emergency Management Agency and States in preparing, responding, and recovering from disasters. Major General Jackson received his commission as an Engineer officer from Clemson University in 1986.

Major General Jackson’s command assignments include Commanding General (Forward), US Army Corps of Engineers Transatlantic Division, Kabul, Afghanistan, OPERATION ENDURING FREEDOM; Commanding General US Army Corps of Engineers South Atlantic Division, Atlanta, Georgia; Commander and District Engineer of the US Army Corps of Engineers, Little Rock District; and Commander, 54th Engineer Battalion (Mechanized), OPERATION IRAQI FREEDOM. His staff assignments include Director, Joint Engineering Directorate, United States Forces-Afghanistan, OPERATION ENDURING FREEDOM; Chief of Staff, Eighth Army, Seoul, Republic of Korea; Chief, Program Integration Branch, Office of the Chief of Engineers, Department of the Army Staff, Pentagon; Chief of Plans and Exercises Branch, Office of the Deputy Chief of Staff, Engineer, Headquarters, 7th Army and US Army Europe; and Current Operations Officer, Engineer Operations Division, Combined Forces Command, Seoul, Republic of Korea.

His awards and decorations include the Defense Superior Service Medal, Legion of Merit, Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal, the Army Commendation Medal with Valor Device, the Army Achievement Medal, the Military Outstanding Volunteer Service Medal, the Presidential Unit Citation, the Joint Meritorious Unit Award, the Army Superior Unit Award, the Silver Order of the de Fleury Medal, the German Armed Forces Efficiency Badge-Gold, Parachutist Badge, Air Assault Badge, Army Staff Identification Badge, Ranger Tab, Sapper Tab, and the Combat Action Badge.

MG Jackson shared this unusual story of the Clemson Hard Hat shown in the photo above. In April 2014, during my deployment to Afghanistan, I spent several days visiting Camp Leatherneck, the Marine Corps base in Helmand Province. During my visit I toured one of the buildings we recently completed and were preparing to turn over to the local command. During the walking tour, I found that the Project Engineer was a Citadel grad with a daughter that had graduated from Clemson. Of course I shared with him I had graduated from Clemson as well. Towards the end of our visit he asked me to wait, and that he had something I might want. He returned with the Clemson hard hat. According to him the hard hat was provided by Tajh Boyd, the former quarterback for the Tigers, who had sent this to a relative working in Afghanistan as a contractor. The contractor had since left Afghanistan, and left the hard hat behind. Since the project was complete, the office was preparing to relocate and the hard hat was to be thrown out. Of course I gladly accepted and it holds a place of honor in my office to this day! Go Tigers.
Alumni Development Committee Activities

The goal of our Alumni Development Committee is to raise awareness and interaction of previous students to stay connected to the program following graduation. A connected Alumni raises opportunities for previous, current, and future students by connecting all through one common goal... Making the Clemson Construction Science and Management program the best in the country.

As we welcome another year, your Alumni Development Committee is hard at work. For those involved in the past, the Alumni and Industry golf tournament has been a staple event for years. Typically held in the fall, the annual golf tournament has been transitioned to the spring to make way for other events. The Annual Golf Tournament will be held this spring at the Pebble Creek Country Club in Greenville, S.C., on April 27, 2017. In conjunction with the event the Alumni will also host a dinner to congratulate graduating seniors on their accomplishments and wish them luck as they make their way into their future careers. We hope everyone will join us. Registration for the event will be forthcoming along with a Save-The-Date. The Alumni Development Committee is interested in hearing from any Alumni or Industry partners who may be interested in a title sponsorship of the event. There will also be other levels of sponsorship available through the registration process. With 100+ participants regularly attending the event, sponsorship is a great way to showcase your business to the biggest leaders in the construction industry. Sponsorship interests should be sent to cucsmalumns@gmail.com.

Additionally, we are busy posting open positions to the Alumni Website (http://cucsmalumns.wixsite.com/cu-csm-alumns). Interest in our students and graduates is high, and opportunities are plenty. Please use this site as a resource to fill a need or look for your next opportunity.

The Alumni Development Committee needs your help. In an effort to showcase our graduates skills, we are requesting photos from Alumni showcasing them against the backdrop of their proudest construction project on which they were involved. These photos will be used to develop a special artwork piece that will be unveiled at a future Industry Advisory Board Meeting. In order for this to be a success we need your pictures and captions of the photo. Photos may be submitted to cucsmalumns@gmail.com or any of our social media platforms on Facebook, LinkedIn, Twitter, or Instagram. Please help us to make this endeavor successful.

Finally, you are encouraged to regularly visit the CU CSM Alumni and Supporters website (http://cucsmalumns.wixsite.com/cu-csm-alumns). This website serves as a link for alumni and supporters to stay actively involved and engaged in the activities of the department. It is also used as a tool to communicate how alumni and supporters can assist the CSM program, some of which are as follows:

1. Serve as a guest speaker.
2. Become a member of the Industry Advisory Board.
3. Encourage current employer to become a Corporate Partner.
4. Commit to making an annual donation to the department.
5. Host a field trip to company construction project.
6. Encourage current company to hire interns for the summer.
7. Encourage current employer to hire graduates.
8. Volunteer to serve as a local alumni leader.
9. Provide news about yourself for the department’s annual newsletter.

If you are interested in getting more involved with the department and its activities and events, please send an email to Roger Liska (riggor@clemson.edu) letting him know of your specific interests. If you are not already doing so, making a manageable annual donation to the Clemson University Foundation would be very helpful. While the department would like to suggest a minimum annual donation of $50 per year, any amount will help offset possible future budget cuts. To join the IAB (minimum donation of $100 per year) and/or to make any size donation go to https://cualumni.clemson.edu/give/construction-science-and-management.

On behalf of the Industry Advisory Board’s Alumni Development Committee, thank you for continuing to help us raise awareness and credibility of our programs on a national scale. Your increased support and interaction as an Alumnus cannot be understated. Go Tigers!
Clemson University
CONSTRUCTION SCIENCE AND MANAGEMENT
GRADUATES FOR 2017