SASEE AMERICAN SOCIETY FOR ENGINEERING EDUCATION

SOUTHEASTERN SECTION NEWSLETTER September 2021 Fall Edition

Historic Charleston, SC 2022 Annual Conference Site

From spectacular sunsets over its waterfronts, marshes and beaches on nearby barrier islands to its historic cobblestone streets, fountains, beautiful hidden gardens and pastel historical houses and with its history, restaurants, shopping, tropical climate and romantic appeal, Charleston, SC yet again offers its Southern hospitality and provides an excellent location for the 2022 Annual Meeting of the American Society for Engineering Education Southeastern Section, hosted by The Citadel. The conference will be held March 13–15, 2022 on the new and old Citadel campuses.

The ASEE-SE annual conference is a time-honored highlight of the academic year showcasing teaching innovation, academic advancement, and engineering curriculum enhancement. The conference provides a unique opportunity for colleges and universities across the southeastern U.S. to synergize, compare and



View of Downtown Charleston, SC 2022 Conference Location.

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discuss successful approaches to effectively educating tomorrow's engineering students, who will answer the high calling of becoming the next generation of engineering leaders and entrepreneurs. The 2022 ASEE-SE conference theme is "Educating Principled Engineering Leaders of Tomorrow." We are preparing to host more than 200 professors and administrators with 100 presented papers and 30 student posters from across the southeastern U.S.

The Citadel was established in 1842 and was originally located on Marion Square in scenic downtown Charleston, SC. Today the five-floor building will serve as our conference hotel, Embassy Suites. It was originally built as a fort to guard the city, several years later it became a tobacco warehouse, then served as the original Citadel Military College. Today, the Old Citadel still tells the story of gentility in the South with its extensive grounds, gracious lobby, grand atrium, and fountains. You can walk to nearby local restaurants or enjoy the hotel's free made-to-order breakfasts and complimentary evening receptions.

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Historic Charleston, SC - 2022 Annual Conference Site

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The current Citadel campus, which in 1922 was moved to the banks of Ashley River, is a picturesque home to 24 major buildings and over 3,400 men and women enrolled in over 20 full and part time graduate and undergraduate programs.

Charleston, SC ranks as a top tourism destination according to Conde Naste Traveler and Travel + Leisure periodicals and many times recognized as No. 1 in the world and No. 1 US City. For many visitors, Charleston has it all. With its southern charm, friendly atmosphere and unique culture, you will never run out of things to do or see. From events and fairs to museums and historical sites, Charleston offers something for everyone...and then some. Please join us in 2022.

To explore what we prepared for 2022 please visit <u>https://sites.asee.org/se/conference</u> and take a quick 2022 Conference Planning Survey <u>https://forms.gle/yRiRXXekrR7SKtZVA</u>. We appreciate your feedback!



The Citadel, The Military College of South Carolina in Downtown Charleston, SC 2022 Conference Venue.



The Embassy Suites in Historic Charleston, SC 2022 Conference Venue Hotel.



Pineapple Fountain in Charleston, SC



The Battery in Charleston, SC is a landmark with defensive seawall, promenade and antebellum homes.



Message from Section President Chuck Newhouse

Hello fellow ASEE Southeastern Section members – and hopefully some prospective members. It is an honor to serve such an active section that has continued to focus on education during this challenging time. I hope that everyone was able to rest and recover some during the summer and that you are looking forward to starting another more normal (or new normal) academic year.

As I thought about this message, I realized it would be easy to talk about all the changes that have taken place during this unprecedented past year: the pandemic, social and racial reckoning, teleworking, and Zoom, to name just a few. ASEE SE members have rolled up their sleeves and worked in all these areas. And many had to work harder this past year to balance extra demands at work and home. Although it was a year of change some things did stay the same.

The annual conference scheduled to take place in March 2021 at George Mason University could not take place in-person as originally scheduled. As the planning team met, initial discussions took place to determine whether it would be best to cancel the conference. Everyone was busy trying to figure out how to teach online or hybrid. We all could have used the extra time to figure out how to present our lessons under new and constantly changing COVID-19 restrictions. lt is already hard to remember how much uncertainty existed and how difficult it was to make decisions with incomplete information. But, under the steady and capable leadership of Priya Goeser, the ASEE SE president for 2020-2021, the conference planning team decided that even though some organizations were canceling annual conferences that our conference must take place.

Many helped with the planning. Although there were technical challenges figuring out how to host a conference on-line, the conference went off without a hitch. I especially thank Cecelia Wigal for chairing the conference planning committee that organized the 2021 ASEE SE Annual Conference and Todd Schweisinger for serving as Technical Program Chair. There were many necessary changes, including new ways to present papers in break-out rooms, but one thing did not change - the annual conference gave both new and experienced faculty the opportunity to present their educational research and to learn from others. This exchange of information is a vital part of ASEE SE and is part of the mission which states in part to "... enhance and promote the development of effective faculty...".

Something else that did not change last year within ASEE SE was the drive to continuously improve the section. I know that many people took on COVID-19 projects at home - yards in our neighborhood looked great (until Lowe's started to run out of supplies). Somehow David Calamas, working with Hodge lenkins, found the time to create a new website for the section. Please visit the new site for information about the section and upcoming events: https://sites.asee.org/se/ The new website is also useful as a resource for past proceedings and historical information about the section. It is still under production, but already looks great. Thank you both for your efforts.

ASEE SE members were forced to find new ways to present material under different types of constraints. As expected, many presentations at the ASEE SE Annual Conference focused on the effectiveness of these new ways to present material either on-line or in a hybrid format. From what I observed during planning meetings and other contact with ASEE SE members, most not only survived the transition to on-line teaching, but instead improved during the past year. Many of us learned new ways to present material and will certainly keep some of the tools and techniques that we were forced to learn. Networking

Message from Section President Chuck Newhouse

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within the section and attending the conference did help in the "...development of effective academic programs..." which is another part of the mission of ASEE SE.

The 2022 ASEE-SE Annual Conference hosted by the Citadel will be held in Charleston, South Carolina from March 13th to 15th. The conference theme, "Educating Principled Engineering Leaders of Tomorrow" focuses our attention forward. As stated on the website, the Southeastern Section has a long-standing tradition of providing fantastic conferences. I am certain that the 2022 conference will continue this tradition and hope that all of you can come. Please visit the website to view the call for papers. Abstracts are due soon!

I have been involved with the ASEE SE section since moving back to Virginia in 2008. Although higher education in America is changing rapidly, there is one thing that has not changed since I have been involved with the ASEE SE section – participating in the section has always exposed me to ways to improve my teaching which has enabled me to contribute to the academic program where I teach. For many of us, everything took longer than expected this past year. Teaching, responding to emails, finding rooms big enough to hold socially distanced classes, keeping our kids from getting discouraged, and trying to stay healthy took a considerable amount of extra time. None of us had any spare time to spend planning this past year's conference. But I am glad that I did make the time because interacting with ASEE SE members this past year proved helpful in several ways. Yes, it helped with my teaching. But more importantly, it showed me how dedicated many of you are to your students and to your family. This was more inspiring than any speeches I heard this past year. Thank you again for your dedication to ASEE SE. I look forward to seeing you in Charleston, SC in March.

Current section officers, Conference information, and much more can be found at our NEW section website

sites.asee.org/se

Highlights of the 2021 Virtual Section Conference

2021 ASEE-Southeast The Section Annual Conference was held virtually, after COVID travel restrictions prevented the possibility of an in-person conference. The Conference Planning Team worked diligently to organize and continue to hold our conference, with a new, appropriate theme, "Collaboration Within and Without". Attendify was chosen as the virtual platform to host the 2021 ASEE Southeastern Section Annual Conference on March 8–11. The conference was well planned and highly successful. More than 150 attendees from many different organizations participated. Nearly 70 papers were presented, with authors and presenters representing over 35 institutions and corporations.

The online conference still felt very familiar having technical sessions, roundtables, actives, officer elections, section meetings, "hallway" conversations, invited speakers and awards. A new rapid-fire presentation format was trialed in several technical sessions and appeared to be very well received.

Our Plenary Speaker, William Lawson, Associate Professor, Texas Tech University spoke on "The Engineer's Ethical Obligation to be Technically Competent."

J. Robby Sanders of Tennessee Technological University, presented this year's Thomas C. Evans Award winning paper on "Promoting Student Problem–Identification Skills Via a Jeopardy–Inspired Game Within the Renaissance Foundry".

The section awards were presented at the Wednesday Awards Ceremony. Awards during the lunch time session. Award recipients are listed later in this newsletter. Congratulations to all.

Many thanks to the entire 2021 Conference Planning Team, under the very capable leadership of Priya Goeser, Section President. The Conference Planning



Professor William Lawson of Texas Tech University was our plenary speaker, and spoke on Engineer Ethics.

Team did an amazing job of handling the all the details for setting up and running the conference online. The team met bi-weekly since early Fall 2020 and weekly in 2021 to develop an outstanding conference. It was wonderful to still hold a conference, virtually visit and exchange ideas with colleagues. By all measures it was a successful conference.

Thanks again to the Conference Planning Team: Priya Goeser, Section President, Cecelia M. Wigal, Conference Coordinator and Secretary of the Section, Todd Schweisinger, Technical Program Chair, David Calamas, Roundtables and Actives Coordinator and Vice-President Programs Unit, Tyson Hall, Paper Management Site Coordinator, Sally Pardue, Incoming Secretary, John Brocato, Proceedings Editor and Zone II Chair, Monika Bubacz, Vice-President Awards & Recognition Unit and Treasurer of the Section, Tim Wilson, Immediate Past President, Chuck Newhouse, President-Elect, Anna Howard Chair Research Division, Kenneth Ball, Campus Representative Coordinator. Richard Stansbury, Vice-President Publications and Promotion Unit.

Southeastern Section Award Nominations Sought for 2022 Conference

Late each fall the Southeastern Section issues a Call for Award Nominations for several section awards. The awards in the Call are the Thomas C. Evans Engineering Instructional Paper Award, Tilmans–Dion Service Award, the Outstanding Teaching Award, the Outstanding Mid–Career Teaching Award, the Outstanding New Teacher Award, and the New Faculty Research Award. Section members are encouraged to nominate worthy colleagues. Any ASEE–SE member may nominate a candidate for an award. All members of the ASEE Southeastern Section are eligible for these awards. Descriptions of the awards along with candidate qualifications, nomination documentation, and submission information can be found on the section website on the Awards page. Deadlines for nominations will be shortly announced in the Call for Award Nominations, but are usually set in early January. Awards are presented at the Section Meeting and Conference. Details of this year's award nominations and presentations will be communicated to section members later this fall. More details can be found on the section website. sites.asee.org/se/awards

2021 Section Awards

At the 2021 Annual Section Meeting a number of awards were given for excellence in engineering education. The list of recipients and the awards presented are:

Tilmans-Dion Service Award: Sally Pardue, Tennessee Tech University

Thomas C. Evans Engineering Instructional Paper Award: J. Robby Sanders, et al, Tennessee Tech University, "*Promoting Student Problem–Identification Skills Via a Jeopardy–Inspired Game Within the Renaissance Foundry*"

Section Outstanding Teaching Award: Lisa G. Huettel, Duke University

Section Outstanding Mid-Career Teaching Award: Matthew Cooper, North Carolina State University

Section Outstanding New Teacher Award: Rebekah D. Burke, The Citadel

Section New Faculty Research Award, First Place: Reuben F. Burch, Mississippi State University

Section New Faculty Research Award, 2nd Place: Lauren E. Beckingham, Auburn University

ASEE-SE Conference and Awards information can be found at **sites.asee.org/se**

Undergraduate Student Presentation Award Winners from the 2021 Annual Section Conference

1st Place:

"Mystery of the Miniaturized Velocity Profile Interrogator Negative Velocity Profile Solved Remotely, "

Nina Jones (University of Florida), Sean Niemi (University of Florida), Matthew Traum (Engineer Inc.)

2nd Place:

First Year Engineering Students' Understanding and Application of Models: Comparing Impact of Catia vs. Matlab Courses,"

Nishith Shah (Embry-Riddle Aeronautical University), Pujan Thaker (Embry-Riddle Aeronautical University), Kelsey Rodgers (Embry-Riddle Aeronautical University), Angela K. Thompson (University of Louisville), Matthew Verleger (Embry-Riddle Aeronautical University), Farshid Marbouti (San Jose State University)

Future Section Conference Locations

2023 George Mason University, Fairfax, VA

2024 Kennesaw State University, Kennesaw, GA

2025 Mississippi State University, Starkville, MS

2026 University of Memphis, Memphis, TN

2027 Virginia Military Institute, Lexington, VA

2028 University of Georgia, Athens, GA

ASEE Southeastern Section Officers

The new officers for the 2021-2022 year are:

President President Elect Immediate Past President Secretary Treasurer

<u>Vice Presidents</u> Programs Unit Awards & Recognition Unit Publications & Promotion Unit

Division Chairs

Administrative Division **Bioengineering Division Chemical Engineering Division Civil Engineering Division** Computer Engineering and **Technology Division Electrical Engineering Division Engineering Graphics Division** Engineering Technology Div. Industrial Engineering Div. Instructional Division K-12 Division Mechanical Engineering Div. **Professional Skills Division Research Division** Software Engineering Div.

Appointed Officers

Paper Management Website Coordinator Section Website Coordinator Newsletter Editor Campus Rep. Coordinator Proceedings Editor Charles (Chuck) Newhouse Todd Schweisinger Priya Goeser Sally Pardue Monika Bubacz

Todd Schweisinger Simon Ghanat Anna Howard

Rami Haddad Sinjae Hyun Bryan Beckingham Kweku Brown

Harry Powell Thomas Murphy Dimitra Michalaka Daniel Kohn David Greenburg Richard Gregory Cecelia Wigal Emily Spayde Yucheng Liu Ken Marek Omar Ochoa

Tyson Hall David Calamas Hodge Jenkins Kenneth Ball John Brocato Virginia Military Institute Clemson University Georgia Southern University Tennessee Tech University The Citadel

Clemson University The Citadel NC State

Georgia Southern University Mercer University Auburn University The Citadel

University of Virginia Georgia Southern University The Citadel University of Memphis The Citadel Lipscomb University University of Tennessee at Chattanooga Mississippi State University Mississippi State University Mercer University Embry-Riddle Aeronautical University

Southern Adventist University Georgia Southern University Mercer University George Mason University University of Georgia

ASEE-SE officer contact information can be found at sites.asee.org/se/officers



ASEE Southeastern Section Conference March 13-15, 2022 The Citadel, Charleston, SC



Educating Principled Engineering Leaders of Tomorrow

ASEE-SE has a long-standing tradition of fantastic conferences, which are open to everyone interested in improving the engineering education experience. Participants include faculty, students, department chairs, college deans, and industry leaders in engineering, engineering technology, and computing education. We look forward to more than 200 attendees with 100 presented papers and 50 student posters and many opportunities for active participation for attendees.

Workshops and tours start on Saturday. The conference officially opens at the Sunday night reception. Monday begins with a plenary speaker followed by paper sessions and a student poster competition. Monday evening features an awards dinner with an invited speaker. Tuesday includes paper sessions in the morning and our adjournment after lunch. Breakfasts and lunches are included. We hope you will join us!

Call for Papers and Presentation Abstracts

Authors are invited to submit full-length manuscripts or work-in-progress papers. Papers addressing the conference theme will have first priority and may include topics related to the following:

- Impact of Pandemic on Education
- Online, Distance, and Blended Education
- Innovative Learning Technologies, Curricula or Courses
- Virtual Learning Communities
- Experiential Learning
- Teaching/Learning Practices
- Resilience, Recruitment, and Retention
- K-12 Outreach Programs

- Engineering Common Cores
 First Year Engineering Programs
- Capstone Design Courses or Projects
- Undergraduate Research
- Undergraduate Research
- Inter- and Multi-Disciplinary Practices
- Ethics, Diversity, Inclusion, Leadership
- Professional Education and Development
- Academic/Industry Partnerships
- Administration, Accreditation, Assessment

Full-length papers (6-10 pages, excluding references and bios) and Work in Progress papers (3-4 pages, excluding references and bios) will be accepted based on double-blinded peer reviews of complete manuscripts. Guidelines for manuscript preparation will be available via the "Author Information & Instructions" link at sites.asee.org/se, under the "Conference" menu.

Authors are expected to present their papers at the conference to facilitate the transfer of knowledge through discussion and debate. All accepted papers presented by a timely registered author will be included in the conference proceedings. An author/co-author can be associated with as many papers as is appropriate, but a registrant can serve as the presenter of record on a maximum of three papers.

Pre-conference workshops and student poster presentations for lower- and upper-division design and undergraduate research is also planned. Details for these other programs will be announced in the Fall 2021.

Schedule for Submission of Full-Length Papers

Friday, September 10, 2021 Abstracts submitted by authors for consideration
Friday, September 24, 2021 Authors notified regarding acceptance
Friday, November 5, 2021 Draft manuscripts due from authors for review
Friday, December 3, 2021 Reviewed manuscripts returned to authors
Friday, January 7, 2022 Final manuscripts due from authors
Friday, January 14, 2022 Notification of final paper acceptance
Friday, January 21, 2022 Deadline for presenters to register for conference

Submit a 250-300 word abstract by September 10, 2021. Please visit sites.asee.org/se throughout Fall 2021 for details.

CONTACTS Natalia Cardelino, Technical Program Chair, 478-301-2416, cardelino_nh@mercer.edu Monika Bubacz, Conference Site Coordinator, 843-953-0530, mbubacz@citadel.edu