

SOUTHEASTERN SECTION NEWSLETTER



Auburn University Hosts 2020 Section Conference

Preparations are underway for the 2020 ASEE-SE Annual Meeting, to be hosted by Auburn University on 8-10 March 2020. The meeting will congregate around the newly completed, \$44-million Brown-Kopel Engineering Student Achievement Center, located in the heart of the Samuel Ginn College of Engineering. ASEE-SE 2020 will be the first major event hosted in this state-of-the-art facility that is specifically designed to address engineering students' academic and professional needs.

In concert with the student-oriented focus of the host institution, the theme of the 2020 annual meeting is "Delivering Student-Centered Engineering Education." The ASEE-SE Conference is open to everyone interested in improving the engineering education experience. Participants will include faculty, students, department

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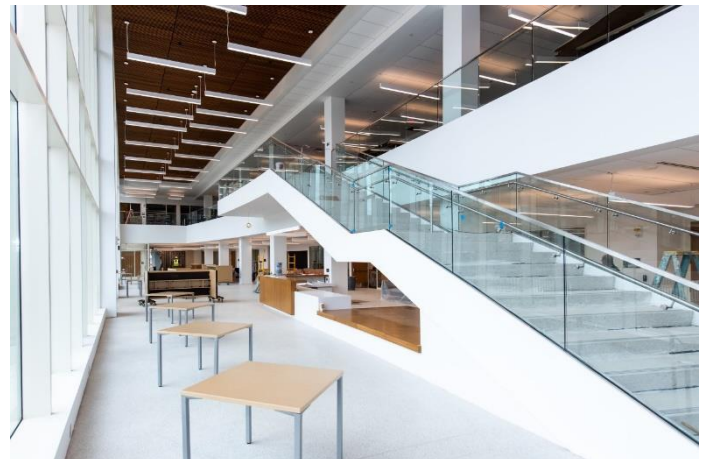
chairpersons, college deans, and industry leaders in engineering, engineering technology, and education. The conference is an excellent opportunity to interact and reflect with colleagues over a plethora of engineering education issues and topics, as well as chart new directions and collaborations.

Please regularly visit the meeting information website at www.eng.auburn.edu/sites/asee and www.asee-se.org our section website for the call for papers, abstract submissions, workshop proposals and

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Auburn University's Brown-Kopel Engineering Student Achievement Center recently completed in 2019 and 2020 Conference venue.



Interior of Brown-Kopel Engineering Student Achievement Center

Auburn University Hosts 2020 Section Conference

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Auburn, Alabama promises to be an excellent location for the 2020 meeting. A number of tourist attractions for shoppers, antique buffs, golfers, and those interested in boating, hiking, and fishing may be found in and around the Auburn area. Chewacla State Park offers a 26-acre lake, swimming area, modern campgrounds, and over two dozen multi-use trails for hiking and mountain biking in a 700-acre scenic environment, just a 10-minute drive from campus.

The Samuel Ginn College of Engineering at Auburn University is the largest engineering program in the state of Alabama, and ranks among the top 20 programs in the nation in terms of number of students graduating each year. Currently, over 240 faculty instruct nearly 6,000 undergraduate students, and guide approximately 1,000 graduate students. The eight departments of the college offer 36 undergraduate and graduate degree programs, 7 minors, and a growing number of graduate certificates.

The college has 19 online offerings that provide on-campus equivalent experiences; the online education program is ranked 12th in the nation. Prominent alumni of the College include 4 astronauts and Tim Cook, CEO of Apple, Inc.



William J Samford Hall, administration building with its clock tower on the beautiful campus of Auburn University



Message from Section President, Tim Wilson

Hello, fellow ASEE members within the Southeastern Section! As we try to remember what summer relaxation we had (where did it go so quickly?!), I want to take a few moments to both look back at our recent past and look forward to what's coming 'round the bend for our ASEE SE Section.

ASEE SE Conference in Raleigh: We had a great Southeastern Section conference with theme, "Educating Tomorrow's Engineering Entrepreneur" at NC State's Centennial Campus this past March. Besides the excellent paper presentations—including this year's Thomas C. Evans Best Instructional Paper by Rachel

McCord and Holly Matusovich of the University of Tennessee, Knoxville (McCord presenting)—and usual high-quality student posters, we were informed by How Stuff Works's Martin Brain; charged to prepare future engineers for international engagement by Hans J. Hoyer, Secretary General of the International Federation for Engineering Education Societies and Executive Secretary of the Global Engineering Deans Council; briefed regarding ASEE initiatives by then ASEE President-Elect (now President) Stephanie Adams; and challenged by Mark Meno, Chief Engineer at the US Navy's Fleet Readiness Center East, to ensure that industry clearly communicates its needs for just-graduated engineers to our engineering education communities.

The conference saw unprecedented levels of external support with generous donations from McGraw-Hill, Autodesk, NC State, West Carolina University, Duke University, UNC Charlotte, Wake Technical Community College and NC Engineering Pathways, Eastern Carolina

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Message from Section President, Tim Wilson

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University, Campbell University, UNC Wilmington, and Mechanical Engineering and Materials Science at Duke. Both thanks and congratulations go to the local host team, led by NC State's Dr. Anna Howard, and to ASEE SE leaders Georgia Southern's David Calamas for organizing the Student Poster Competition, then Mississippi State's (now University of Georgia's) John Brocato as Proceedings Editor, and VMI's Chuck Newhouse, who managed the collection, review, selection, and revision of papers in the tough and all-important role of Technical Program Chair.

ASEE National Conference in Tampa: In June I had the pleasure to attend the annual ASEE national conference in Tampa, where I represented the Section at both the Zone II officers and the Council of Sections meetings. The following items from those may be of interest to you. (1) ASEE is looking at "rebalancing" both the Professional Interest Committees (PICs, into which the technical divisions are organized) and the Zones and Sections. I believe you can expect our Section, being geographically large and home to a large number of engineering programs, will be scrutinized for possible break up. If you have strong feelings about this, please let our Zone II chair, Andy Kline of Western Michigan (andrew.kline@wmich.edu) know (cc-ing me, wilson@erau.edu, please). (2) ASEE membership is up after a stretch of declining participation, and our zone had the largest increase. (3) We're discussing holding a section or zone reception after the Division Mixer on Sunday of the national conference to allow a chance to meet your section and zone colleagues from other institutions. All in all, it was a good, if hot, wet, and sweaty, meeting.

Upcoming ASEE SE Executive Board and Conference Planning meeting: Section leadership and section conference leadership will meet this coming October (exact dates to be announced) in Atlanta for our annual three meetings in one event. Those would be our Conference Site Planning Meeting, (Conference) Technical Program Planning Meeting, and Executive

Board Meeting. Besides getting ready for the 2020 conference at Auburn (see below and elsewhere in this newsletter), the Board will discuss expanding our existing initiative to support Puerto Rican students and faculty to attend our ASEE SE conference to support travel to and from the ASEE national conference for the same cohorts. We will also discuss a proposal to financially support travel to future planning meetings for critical personnel like host-site coordinator. If you are a section or section division officer, please join us in Atlanta. Watch for details.

2020 ASEE SE Awards: Speaking of awards, the Awards and Recognition Committee under the leadership of UVA's Harry Powell did the hard work last winter of identifying those we think represent the best in the Section. (See the Section Awards sidebar.) I hope you are already making notes of which of your colleagues—or yourself—to nominate for our 2020 awards. If your college of engineering or campus has already identified you or one of your colleagues as an outstanding teacher or researcher, please nominate that person for an appropriate section award. We are gifted with talented and hard-working colleagues, and it is up to each of us to ensure that those in our communities deserving of recognition are identified. I appreciate your help in generating quality nominations for our awards.

2020 ASEE SE Conference at Auburn: We will meet again as a section this coming spring in Auburn, Alabama, for our 2020 section conference with theme, "Delivering Student-Centered Engineering Education." Please see the call for papers in this newsletter for details. Your colleagues in the section want to hear about what you're doing to improve engineering education for your students, so I hope you'll take the opportunity to submit an abstract sharing your innovations and better practices.

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Message from Section President, Tim Wilson

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2020 ASEE National Conference: Next year's big ASEE meeting is in Montreal, Quebec. If you have a paper you think is appropriate for the national conference, please consider presenting some of the same content at our section conference as a work in progress, or if content is sufficiently distinct, as a separate paper.

Section Communications and Giving: I want to encourage you to ascertain that your Communications Options for your ASEE membership includes Section Listserve. To do so, please log in to your ASEE account. In the upper-right panel of your membership page is the item "Opt-In Communication Options". Select that, then please make sure that "Section Listserve" is among any selected options. Why not check with your neighbor and make sure that they've also updated their communication options?

Also, while you're at your ASEE membership page, please take the opportunity to make a small donation to our section. It's not that our section needs the resources: It's that your giving, in any amount, demonstrates to ASEE national and those who watch its finances, that our section is engaged, involved, and committed to its own success and to the success of parent ASEE organization. Your participation will be very much appreciated. I hope you'll consider giving to the Section.

Thanks: It's an honor to hold this position. My recent predecessors have done a fantastic job of promoting our section and its membership. I am grateful to them for their hard work and their generosity of time and spirit, and I hope you are, too. I'm also grateful to all of you for the opportunity to hold this position and to shepherd our section for 2019-2020. Best wishes to us all: May we have an exciting and productive academic year!



Tim Wilson
ASEE-SE President
Professor of Electrical and Computer Engineering
Chair, Department of Electrical, Computer, Software, and Systems Engineering
Embry-Riddle Aeronautical University - Daytona Beach Campus

JUST ANNOUNCED!

*ASEE-SE 2020 Conference planning meeting is
scheduled for October 17-18, 2019 in Atlanta.*

*Additional formation can be found at
asee-se.org*

Highlights of the 2019 Section Conference at NC State

The College of Engineering at North Carolina State University hosted the 2019 ASEE-Southeast Annual Conference on March 10-12, 2019 at NC State's Centennial campus in Raleigh, NC. The newly opened Stateview Hotel served as the conference hotel. About 203 attendees from 55 different campuses and organizations attended and were very pleased with the campus facilities. There were 95 papers, 8 workshops, 7 roundtable sessions, 27 student posters, and 4 invited speakers. 38 registered students from 11 different universities attended. Roundtable sessions were new to the conference this year and were very well received.

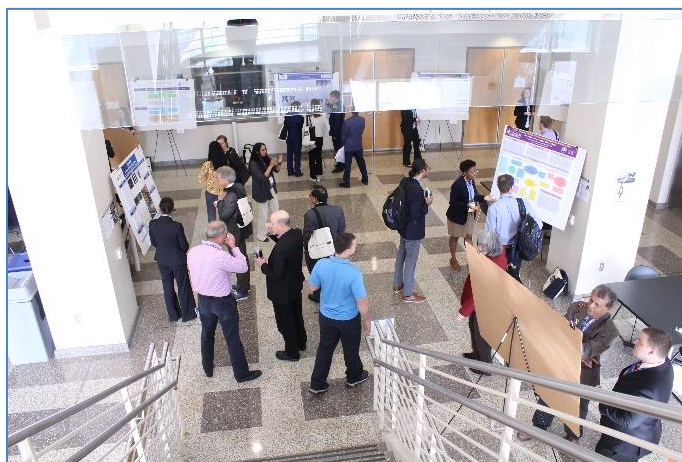
We heard from five fantastic speakers: Marshall Brain, Hans Hoyer, Stephanie Adams, Rachel McCord, and Mark Meno.

Marshall Brain talked to us about how to encourage students as entrepreneurs. Hans Hoyer spoke about getting involved internationally in engineering education. Stephanie Adams briefed us on the current topics under discussion at ASEE nationals and her own path within that organization. Rachel McCord presented her best paper about observing undergraduates to evaluate their metacognition while studying.

A social hour and awards dinner were held at the McKimmon Center with Mark Meno, Air Vehicle Engineering Department Head for the Department of Navy Fleet Readiness Center East addressed the attendees about what the business community is

*Current section officers,
Conference information, and much
more can be found at*

asee-se.org



Student Poster Session in the EB3 Atrium at NC State

looking for in our graduates. The speakers covered so many different angles that there was something for everyone.

Many thanks to NC State Chancellor Randy Woodson, Dean Louis Martin-Vega, and especially to Anna Howard and her team for organizing and hosting a truly amazing and conference. Also thanks to David Calamas of Georgia Southern University for efficiently running the Student Poster Competition. The Stateview Hotel, Hunt Library, and the College of Engineering on Centennial Campus at NC State were wonderful host venues for our conference.



2019 ASEE-SE President Sally Pardue presenting the Best Overall Undergraduate Student Poster Award to Olive Kight .

Southeastern Section Award Nominations Sought

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 ASEE-SE.org 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 will be presented at the Awards Banquet of the 2020 Section Meeting and Conference.

2019 Section Awards

At the 2019 Annual Section Meeting a number of awards were given for excellence in engineering education. The list of recipients and the awards presented at the 2019 Awards Banquet are:

Thomas C. Evans Engineering Instructional Paper Award: Rachel McCord and Holly Matusovich – UT Knoxville

Section Conference Outstanding Paper Award: Whitney Wall Bortz, Kemper Lipscomb, Aakash Gautam, and Deborah Tatar, of Virginia Tech & University of Texas at Austin, "Integrating Computational Thinking into Middle School Science: A Search for Synergistic Pedagogy"

Section Outstanding Teaching Award: Simon Ghanat – The Citadel

Section Outstanding Mid-Career Teaching Award: J. Robby Sanders – Tennessee Technological University

Section Outstanding New Teacher Award: Stephanie Jorgensen – Tennessee Technological University

Section New Faculty Research Award, First Place: Michael McCarthy – Mercer University

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

Student Poster Competition Winners from the 2019 Annual Section Conference

1st Place – Freshman/Sophomore Design Team Poster

Jared Gaidjunas, Persia Ghotbi–Taheri, Mackenzie Hills, Jonathan Baum, and Matthew Samstag, “Developing Standard Operating Procedures for the Artec Eva 3D Scanner,” Clemson University

1st Place – Junior/Senior Design Team Poster

Jordan Teng, Ethan Stokes, Sarah Littleton, and Lydia Kim, “Touch3D™ Touchable Yearbook for the Visually Impaired,” Mercer University

2nd Place – Junior/Senior Design Team Poster

Jane Gillette, Liam Nester, Sean Tibbetts, Savannah Olmstead, Jacob Montgomery, Hailey McMillan, Julie Warchol, and Gregory Liesen, “Design and Analysis of a High–Altitude Multistage Launch Vehicle,” Alabama University

3rd Place – Junior/Senior Design Team Poster

Roy Wood, Daniel Minch, Thomas Barnett, and William Filson, “A Novel Methods to Improve Mechanical Properties of Polymers,” Mercer University

1st Place – Individual Research Poster

Anuj Pranav Sanghvi, “Electrospinning Synthetic Extracellular Matrix,” East Carolina University

2nd Place – Individual Research Poster

Tyler Killgore, “Redesigning a Computer Science Capstone Course with Micro–credentials,” University of North Carolina at Wilmington

3rd Place – Individual Research Poster

Anam Navied, “PRIME: Engaging STEM Undergraduates in Computer Science with Intelligent Tutoring Systems,” North Carolina State University

Best Overall Undergraduate Student Poster – Southeast Section

Olivia Kight, Jordan Brewton, and Sarah Littleton, “Comparison of Flow Characteristics within Stenosed Arterial Models using CFD and MRI,” Mercer University

Future Section Conference Locations

2021 George Mason University - Fairfax, VA
2022 The Citadel - Charleston, SC
2023 Mississippi State University - Starkville, MS
2024 Kennesaw State University - Marietta, GA

ASEE Southeastern Section Officers

The new officers for the 2019-2020 year are:

President	Tim Wilson	Embry-Riddle Aeronautical University	386-226-6994
President Elect	Priya Goeser	Georgia Southern University	912-344-2874
Immediate Past President	Sally Pardue	Tennessee Tech University	931-372-3792
Secretary	Cecelia Wigal	University of Tennessee at Chattanooga	423-425-4015
Treasurer	Daniel Kohn	University of Memphis	901-347-0382
Treasurer-Elect	Monika Bubacz	The Citadel	843-953-0530
Paper Management & Website Coordinator	Tyson Hall	Southern Adventist University	423-236-2916
Newsletter Editor	Hodge Jenkins	Mercer University	478-301-2831
Campus Rep. Coordinator	Kenneth Ball	George Mason University	703-993-1500
Proceedings Editor	John Brocato	University of Georgia	706-542-1653

Vice Presidents 540-464-7364

Programs Unit	Charles Newhouse	Virginia Military Institute	540-464-7364
Awards & Recognition Unit	Chris Wilson	Tennessee Tech University	931-372-3216
Publications & Promotion Unit	Alta Knizley	Mississippi State University	662-617-5157

Division Chairs

Administrative Division	Harry Powell	University of Virginia	434-924-6107
Bioengineering Division	Ramana Pidaparti	University of Georgia	706-542-4057
Chemical Engineering Division	Jeffrey Rice	Auburn University	334-844-5833
Civil Engineering Division	Dimtra Michalaka	The Citadel	843-953-7676
Computer Engineering and Technology Division	Khondkar Islam	George Mason University	703-993-8557
Electrical Engineering Division	Rami Haddad	Georgia Southern University	912-478-8582
Engineering Graphics Division	Kweku Brown	The Citadel	860-617-2216
Engineering Technology Div.	David Greenburg	The Citadel	843-953-9811
Industrial Engineering Div.	Rahul S. Renu	Francis Marion University	843-661-1274
Instructional Division	Sindia Rivera-Jimenez	University of Florida	352-846-1974
K-12 Division	Emily Spayde	Mississippi State University	662-325-8231
Mechanical Engineering Div.	Anna Howard	NC State University	919-513-4019
Professional Skills Division	Dimtra Michalaka	The Citadel	843-953-7676
Research Division	Natalia Cardelino	Mercer University	478-301-2416
Software Engineering Div.	Louie Elliott	University of Tennessee at Chattanooga	423-425-4373



ASEE Southeastern Section Conference

March 8-10, 2020
AUBURN UNIVERSITY
AUBURN, AL



DELIVERING STUDENT-CENTERED ENGINEERING EDUCATION

The ASEE-SE Conference is open to everyone interested in improving the Engineering Education Experience. Participants will include faculty, students, department chairpersons, college deans, and industry leaders in engineering and engineering technology. The conference is an excellent opportunity to interact and reflect with colleagues over a plethora of engineering education issues and topics, as well as chart new directions and collaborations.

PRELIMINARY

CALL FOR FULL-LENGTH PAPERS

Authors are invited to submit full-length manuscripts for presentation at the conference and inclusion in its proceedings. Papers addressing the conference theme will have first priority and may include topics related to the following:

- Innovative Curricula or Courses
- First Year Engineering Programs
- Cross-Discipline Practices
- Online, Distance, and Blended Approaches
- Effective Learning Technologies
- Technologies for Efficient Learning
- K-12 Outreach Programs
- Learning Communities
- Experiential Learning
- ABET Accreditation Projects
- Recruitment and Retention
- Industry Partnerships
- Engineering Common Cores
- Teaching/Learning Practices
- Capstone Design Courses or Projects
- Ethics and Professional Development

Authors may also address other topics of interest to the engineering education community.

Full-length papers (6 pages, excluding references and bios) and Works in Progress papers (3 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 <http://www.asee-se.org>, 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.

A student poster presentations event for lower- and upper-division design and for undergraduate research is also planned, as well as pre-conference workshops. Details for these other programs will be announced in the Summer or Fall 2019, on the conference website.

SCHEDULE FOR SUBMISSION OF FULL-LENGTH PAPERS

Friday, September 13, 2019	Abstracts submitted by authors for consideration
Friday, September 27, 2019	Authors notified regarding acceptance
Friday, November 8, 2019	Draft manuscripts due from authors for review
Friday, December 6, 2019	Reviewed manuscripts returned to authors
Friday, January 10, 2020	Final manuscripts due from authors
Friday, January 17, 2020	Notification of final paper acceptance
Friday, January 24, 2020	Deadline for presenters to register for conference

Submit a 250-300 word abstract in doc, docx, or pdf file format by September 13, 2019.

Please visit <http://www.asee-se.org> throughout Summer 2019 for details.

CONTACTS

David Calamas, Technical Program Chair, (912) 478-5751, dcalamas@georgiasouthern.edu
John Y. Hung, Conference Site Coordinator, (334) 844-1813, hungjoh@auburn.edu