Southeastern Section Newsletter

Historic Charleston, SC 2011 Conference Site

From a spectacular sunset over its waterfront and marshes to its historic cobblestone streets complete with horse and carriage, Charleston, SC offers an excellent location for the 2011 Annual Meeting of the American Society for Engineering Education, hosted by The Citadel. The conference will be held April 10-12 on The Citadel campus.

Papers will be presented that deal with pedagogy and engineering education in preparing engineering students to assume a significant leadership role in the professional community. Not only will the engineering students of the future have to be technically sharp but must acquire the skills associated with leadership and team participation to be players in a global market. Papers will be presented at the conference that will deal with all areas of engineering education including the conference theme, “Creating the Academic Culture to Educate Engineering Leaders.” Through participation in this conference, engineering educators will have the opportunity to share their classroom successes and

(Continued on page 4)

President McCullough’s Message

I am delighted to take this opportunity as the newly elected president of the Southeastern Section to share a few thoughts about our section, our profession, and our future. I’m particularly excited to be president of the section in this year, when our annual conference will be held at the Citadel in Charleston, South Carolina. The last section conference at the Citadel, held in April

(Continued on page 3)

ASEE Vision Statement

“ASEE will serve as the premier multidisciplinary society for individuals and organizations committed to advancing excellence in all aspects of engineering and engineering technology education.”

In This Issue...

Host for 2011 Conference ..................1
President’s Message ..................1
Call for Papers ..................2
Highlights of 2010 Conference at Blacksburg ..................3
Student Poster Winners ..................4
Awards ..........................5
2010-2011 Officers ..........................5
Campus Rep Corner ..........................6

SE Section Web Address:
http://cee.citadel.edu/asee-se/
ASEE Southeastern Section Annual Conference
April 10-12, 2011
The Citadel, Military College of South Carolina
Charleston, South Carolina

Creating the Academic Culture to Educate Engineering Leaders

Call for Papers and Presentation Abstracts

Authors are invited to submit full-length manuscripts for presentation at the conference and inclusion in its proceedings. Papers addressing the conference theme, Creating the Academic Culture to Educate Engineering Leaders will have have first priority; however, other topics will be considered such as (but not limited to):

- Scholarship in engineering education
- Evaluation of engineering education scholarship and research in tenure and promotional decisions
- Capstone and Multi-disciplinary Design Projects
- Curriculum Creation or Enhancement
- Distance Education
- Diversity Recruitment and Retention Programs
- Engagement and Retention Efforts
- Fostering Undergraduate Research
- Freshmen Engineering Programs
- Innovative Teaching Methods
- Integration of Design throughout the Curriculum
- ABET Accreditation
- K-12 Initiatives
- Learning Communities
- Lifelong Learning
- Outcomes Assessment
- Preparation for Engineering Practice
- Professional Development
- Technology in the Classroom
- Two-year/Four-year Partnerships
- Virtual Classrooms and Laboratories
- Industrial Partnerships

This is a peer reviewed conference. Papers will be accepted on the basis of peer review of the complete manuscript. All accepted papers will be included in the conference proceedings. Authors of accepted papers are expected to present their papers at the conference to facilitate the transfer of knowledge through discussion and debate.

In addition to full manuscripts, a limited number of abstracts may be accepted for presentation. These abstracts will be published in the book of abstracts, but will neither be peer reviewed nor included in the reviewed proceedings.

We also anticipate a poster session in which students will discuss their experiences in engineering education (design projects, research, etc.). Information about this session will be available in the fall.

Authors may address other topics of interest to the engineering education community as well. Guidelines for preparing the manuscripts are available at http://cee.citadel.edu/asee-se.

Schedule for submission of papers and abstracts
- September 24, 2010 – Abstracts submitted for consideration
- October 8, 2010 – Authors notified regarding acceptance
- December 3, 2010 – Manuscript due from authors for review
- January 7, 2011 – Reviewed manuscripts returned to authors
- February 4, 2011 – Final manuscript and extended abstract due from authors
- March 1, 2011 - Deadline for presentation author to register for conference

Submit a 250–300 word abstract in doc, docx, or pdf file format by September 24, 2010 to the http://asee.spsu.edu website.

Direct any questions to: Dr. Scott Schultz, Technical Program Chair, schultz_sr@mercer.edu

For further information about the conference site, please contact:
Dennis Fallon, Conference Site Chair, dennis.fallon@citadel.edu
The 2010 Southeastern Section Meeting was hosted by Virginia Tech in Blacksburg, Virginia on April 18-20. Some 131 people attended the conference, including 44 students. There were approximately 95 technical papers on the conference program, which had as its theme, “The Engineering Educator of 2016.”

On Sunday, two workshops were available for those attending the conference. One workshop, “Introduction to BioMEMS on a Shoestring,” was conducted by Kevin Seale and Ron Reiserer from Vanderbilt. The second workshop was “Hands-on with National Instruments’ LabVIEW and Multisim,” presented by Eric Dean of National Instruments. Following the Sunday workshops, conference attendees enthusiastically gathered at Torgerson Hall for a Welcome Reception and Barbecue.

As part of the welcoming ceremonies on Monday morning, Dr. Paul Torgerson, whose distinguished career includes serving as Professor and Head of the Department of Industrial Engineering, Dean of the College of Engineering, and President of Virginia Tech, spoke about the growth and development of the University and the landmark initiative to require freshmen to purchase a personal computer.

Monday’s Keynote Address was delivered by Dennis Hong, Director of RoMeLa (Robotics and Mechanisms Laboratory) of Virginia Tech’s Mechanical Engineering Department. His fascinating presentation included the development of robots that were inspired by biology.

The Thomas C. Evans Instructional Paper Award for the most outstanding paper pertaining to engineering education was delivered by Julie Trenor of Clemson University during the Monday luncheon. The title of her paper was “Participation in a Research Experience for Teachers Program: Impact on Efficacy to Teach Engineering.”

Always a favorite in recent years, there were ten entries in the student poster competition. Award recipients are shown on the next page.
Student Poster Competition Winners
2010 ASEE-SE Conference

First and Second Year Engineering and/or Engineering Technology Design Teams
First place – Kristen Wyckoff and Andrew Simms (“The Effect of Sample Storage Time and Temperature on Oxygen Uptake Rate Measurement”) - Mercer University

Junior/Senior Engineering and/or Engineering Technology Design Teams
First place – Lauren Word and Emory Hannah (“Flow Calorimeter: A Thermodynamic Demonstration”) - Tennessee Tech University
Second Place – Lisa Lloyd and Charles Henley (“2010 Aggie Racing Baja Competition”) - North Carolina A&T State University
Third Place – Leah Moore and Jamie Joyner (“Microbial Fuel Cell Wastewater Treatment for Developing Nations”) - Mercer University
Honorable Mention – Noah Potash, Savannah Kirby, Michael Dop (“Embry-Riddle Unmanned Search and Rescue System”) - Embry Riddle Aeronautical University

Undergraduate Research Individual
First place – Jessica Pippard (“Time Domain Reflectometry and Water Level Measurement in Porous Media”) - Mercer University
Second place – Jason Neufeld (“Probabilistic Location of a Populated Chessboard Using Computer Vision”) - Southern Adventist University
Third Place – Anne-Sophie Puydupin-Jamin (“Computational Micromechanics: Effective Electrical Conductivity of Carbon Nanotube-Polymer Nanocomposites”) - Virginia Tech

Historic Charleston, SC 2011 Conference Site

(Continued from Page 1)

setbacks with colleagues, gain new insights into pedagogical techniques, and discuss new and emerging trends in engineering education.

April is an ideal time to visit Charleston. The Citadel campus is one of the top tourist attractions in the area. In addition, the location of the conference is within a 5-minute drive of downtown Charleston which is noted for its many upscale shops, open market, superb restaurants in which to enjoy the local cuisine, historical homes, churches, and unique walking/carriage tours. Several plantations are within a short driving distance from the conference site: Drayton Hall, Boone Hall, Magnolia Gardens, and Middleton Place. There are several museums that portray Charleston’s rich historical past. In addition Charleston has an excellent downtown aquarium. Finally, a conference participant can visit civil and revolutionary war forts such as Fort Sumter and Fort Moultrie or just have a relaxing dinner cruise.
The new officers for the 2010-2011 year are:

**President**
Claire McCullough  
University of Tennessee at Chattanooga  
423-425-4352

**President Elect**
Brent Jenkins  
Southern Polytechnic State University  
678-95-7433

**Secretary-Treasurer**
Tulio Sulbaran  
University of Southern Mississippi  
601-266-6419

**Immediate Past President**
Keith Plemmons  
The Citadel  
843-953-7677

**Vice Presidents**

- **Programs Unit**
  Zhaoxian Zhou  
  University of Southern Mississippi  
  601-266-4482

- **Awards and Recognition Unit**
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  Southern Adventist University  
  423-236-2916

- **Publications and Promotion Unit**
  Hodge Jenkins  
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  478-301-2831

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- **Administrative Division**
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  Mississippi State University  
  662-325-1493

- **Bioengineering Division**
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  Vanderbilt University  
  615-812-4560

- **Chemical Engineering Division**
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  Ecology and Environment, Inc  
  850-877-1133

- **Civil Engineering Division**
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  662-915-5618

- **Computer Engineering and Technology Division**
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  The University of Southern Mississippi  
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- **Electrical Engineering Division**
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  678-915-7433

- **Engineering Graphics Division**
  William Howard  
  East Carolina University  
  252-737-1030

- **Engineering Technology Division**
  Salame Amr  
  Virginia State University  
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- **Industrial Engineering Division**
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- **Instructional Division**
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- **K-12 Division**
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- **Mechanical Engineering Division**
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- **Professional Skills Division**
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  University of Memphis  
  901-678-3275

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A complete listing of the section officers may be found on the ASEE-SE web site at [http://cee.citadel.edu/asee-se/](http://cee.citadel.edu/asee-se/)
President’s Message

(Continued from page 1)

2001, was the first ASEE conference I had ever attended. Though I had been an engineering professional and an educator for a number of years at that time, that conference was the first time I had ever met with a group of outstanding engineering educators, who were seriously committed to exploring new avenues of engineering pedagogy, and becoming the very best they could be in imparting knowledge, understanding, creative thinking, and originality to a new generation of engineers. The value of the conference was not just in all of the ideas imparted in the presentations, though those were certainly significant, but in the informal discussions and opportunities to meet a new group of people who shared both my interest in, and my commitment to, engineering education as it evolved with the approach of the 21st century. Over the years since that conference, many of those people have become friends, and all have been valuable resources for me and for others. I look back at that conference as a milestone in my career, which had significant and lasting effects on me, my teaching, and my scholarship. I hope that the conference at the Citadel next April will have similar effects on those who attend, and I very much look forward to being part of it.

In comparing the Call for Papers for the conference ten years ago, in which ABET 2000 and use of computers in the classroom were relatively new topics, to that for this year’s conference (also in this newsletter), while many topics have changed, the central premise is very much the same. The theme for this year’s up-coming conference, “Creating the Academic Culture to Educate Engineering Leaders,” continues the forward-thinking, student-centered, professional attitude that has characterized this section for the entire time I have been part of it. I hope that each of you will choose to respond to the call, and join us at the Citadel for what I am sure will be an outstanding conference.

Speaking of outstanding conferences of course brings to mind our most recent conference at Virginia Polytechnic Institute and State University, Blacksburg, Virginia, in April 2010. While each author, each reviewer, each officer, and many others contributed to the success of the meeting, the efforts of the Host Site Coordinator Tom Walker, the staff of the Continuing and Professional Education Department of Virginia Tech, the Technical Program Chair Zhaoxian Zhou, and the Proceedings Editor Barbara Bernal were especially noteworthy. I would like to take this opportunity to gratefully acknowledge their excellence.

I would also like to thank the outgoing section president, Dr. Keith Plemmons, for a year of dedicated service, without which this year’s successful conference could not have taken place. I firmly believe that one of the reasons this section has been so exceptional in past years is the outstanding officers, who have provided both leadership and many hours of hard work—I would invite and encourage each of you to consider volunteering in some capacity as a section officer beginning at the conference in April. For those of you who are officers already, remember to join us at the Officers’ Planning Meeting in Atlanta, November 11-12.

If there is anything that I, personally, can do to help any of you, whether finding a place to get involved or in any other way, please don’t hesitate to get in touch with me at 423-425-4352 or Claire-McCullough@utc.edu.

See you at the Citadel!

Campus Rep Corner

National Awards for ASEE-SE Campus Reps

At the national ASEE Annual Conference in Louisville, Kentucky in June, two Southeastern Section Campus Representatives were recognized for their efforts in the 2009-2010 membership recruitment campaign. Approximately 25 to 30 percent of new Professional members each year are the result of campus rep efforts.

Rafael Perez from the University of South Florida recruited the most new Professional members in the Southeastern Section. He also was a co-recipient of the overall award for the most new Professional members recruited nationally.

John Brocato from Mississippi State University received the award for maintaining the highest percentage of faculty members at his institution. As can be seen on the previous page, he also won the Southeastern Section Most Outstanding Campus Representative Award at the conference in Blacksburg.