Southeastern Section Newsletter



July 2004

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Summer Edition

University of Tennessee at Chattanooga to Host 2005 Conference



The University of Tennessee at Chattanooga (UTC) will host the ASEE-SE Annual Section Meeting (April 3 – 5, 2005) in Chattanooga, Tennessee on the UTC campus and in the new Engineering, Math, and Computer Science (EMCS) building. The theme of the conference is "Engineering 2020 Vision of the Future." Topics authors may address include "trends in instructional methodology", "outcomes assessment", "retention and diversity in engineering and the workforce", "use of information technology in teaching and learning", and the "role of research". In addition, under-

graduate students are invited to participate in a judged poster session on their work in capstone design courses or undergraduate research opportunities. Additional information and topic areas are included in the Call for Papers.

Chattanooga (the Scenic City) was voted one of America's top family weekend getaways by Southern Living's 2003 Reader's Choice Awards and one of America's top family destinations by FamilyFun Magazine. Chattanooga offers a variety of exciting attractions, scenic beauty, rich history, and outdoor adventure. For example, you can visit Lookout Mountain and the steep overlooks of Rock City, walk through limestone caverns and underground waterfalls like Ruby Falls, and visit the Tennessee River on the Southern Belle or the Chattanooga Ducks. You can also raft the Ocoee—part of the 1996 Olympic course. The Creative Discovery Museum's special display will be "Step

President Todd's Message

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Two other engineering societies that I belong to are going through major structural changes at the National level, so several years ago I adopted the mantra "Change is Good" – whether I believe it or not. ASEE Southeastern Section is also going through some less sweeping organizational changes. Hopefully we can all work together so that "change is good" for our organization.

However, before we get caught up in the future, we need to acknowledge what has been happening in the recent past in the Southeast. Auburn University hosted an incredible conference in April with a record-level attendance! Many thanks to our

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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...

SE Section Web Address:

http://cee.citadel.edu/asee-se/



Engineering 2020 VISION of the Future ASEE-SE Section Annual Conference

April 3-5, 2005 University of Tennessee at Chattanooga

Call for Papers and Presentation Abstracts

Authors are invited to submit full-length manuscripts for presentation at the conference and inclusion in the conference proceedings. Papers addressing the conference theme "Engineering 2020 VISION of the Future" have first priority and may include topics such as

- Trends in instructional methodology
- Curricula change and enhancements
- Outcomes assessment
- Projecting ABET 2020
- Role of K-12 initiatives
- Retention and diversity in engineering and the workforce
- The aging workforce
- Use of information technology in teaching and learning
- Tying industry and the community to engineering education
- Use of multi-media and computers
- Distance education
- Virtual classrooms and laboratories
- Role of research
- Graduate education emphasis
- The design emphasis
- Impact of life-long learning

Authors may address other topics of interest to the engineering education community as well. We also anticipate having a session or two of student papers discussing their experiences in engineering education (design projects, research, etc.). Guidelines for preparing the manuscripts are available at www.cee.citadel.edu/asee-se/.

This is a peer-reviewed conference. Papers will be accepted on the basis of peer review of the complete manuscript. All accepted papers would 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.

Schedule for submission of papers and abstracts

24 September 2004 – Abstracts submitted for consideration 8 October 2004 – Authors notified regarding acceptance 3 December 2004 – Manuscript due from authors for review 7 January 2005 – Reviewed manuscripts returned to authors 4 February 2005 – Final manuscript and extended abstract due from authors

Electronically submit a 250–300 word abstract by 24 September 2004 to

Dr. Cecelia M. Wigal, Technical Program Chair College of Engineering and Computer Science University of Tennessee at Chattanooga Dept. 2402, 615 McCallie Ave. Chattanooga, TN 37403-2598

> E-mail: <u>Cecelia-Wigal@utc.edu</u> Phone: (423) 425-4015 Fax: (423) 425-5229

For further information about the conference site, please contact:

Dr. J. O. Owino, Conference Site Chair E-mail: <u>Joseph-Owino@utc.edu</u>

Highlights of Conference at Auburn

The 2004 Southeastern Section meeting was hosted by Auburn University on April 4-6. Some 168 people, including 137 engineering educators and students, 22 exhibitors, and 9 sponsors attended the conference, which had approximately 110 papers on the technical program. "Educating Engineers for the Informational Age" was the

conference theme.

Theory and Practice Workshop

sponsored by the Laboratory for Innovative Technology and Engineering Education (LITEE) of Auburn University and the National Science Foundation. P. K. Raju and Cheetan Sankar of Auburn University were codirectors for the workshop. A second workshop, "Design, Implementation, and Assessment of High

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On Sunday, two workshops were available for those attending the conference. One was "Bringing Theory and Practice Together in

Classrooms," a workshop

The Auburn University Singers Entertain at **Awards Banquet**

Performance Learning Environment" was conducted by Dr. Pedro Arce of Tennessee Tech University.

Following the Sunday workshops and technical sessions, transportation was provided to the Jule Colins Art Museum for the Welcome Reception. The reception included a tour of the museum.

Monday's Keynote Address was delivered by former NASA astronaut, Col. Jim Voss,



Former Astronaut Col. Jim **Voss Delivers Keynote**

associate dean of

engineering for external affairs at Auburn University's Samuel Ginn College of Engineering. Voss provided a stimulating address entitled "Education from Space."

The Thomas C. Evans Instructional Paper Award for the most outstanding paper pertaining to engineering education was presented by Julie E. Sharp of Vanderbilt University at the Monday luncheon. Highlighting the Awards Banquet on Tuesday evening was an outstanding performance by the Auburn University Singers.

Bits and Pieces

- As may be noted on Page 5, the Southeastern Section currently has several awards to recognize excellence in teaching, including the Section Outstanding Teaching Award. Soon, a National Teaching Medal recipient will be selected from one of the Outstanding Teaching Awards given by Sections around the country.
 - The next national conference will be in Portland, Oregon on June 12 15, 2005.
 - Did you miss the Southeastern Section Conference in Auburn? Proceedings of the conference will soon be available on the Section web site, (http://cee.citadel.edu/asee-se/). Teaching tips, ideas on assessment, current practices in engineering education, and other topics may be found in the proceedings. Here are a few quotations from the this year's conference:
 - "Attitudes about the value of a college education, respect for faculty and the university, professionalism in the classroom, and work ethic are just a few of the areas where students show a significant difference from their predecessors of only a few years ago." ["Who are our Students Today?" by S. M. Wells and K. Craven]
 - "Regardless of its name and regardless of whether there has been a corresponding increase in student achievement, we feel that the trend of increasing GPA with time has negative consequences that are sufficiently important to warrant serious attention." ["Grade Inflation at Georgia Tech," by L. W. Lackey and W. J.
 - "The preliminary assessment studies indicate that the workbook strategy may reduce the mismatches between teaching and learning styles, and improves active and collaborative learning; it also increases interactions between students and faculty, and is an effective teaching and learning tool." ["Teaching Chemical Engineering Courses with Workbook Strategy," by Y. Demirel]

ASEE-SE Selects New Officers

The new officers for the 2004-2005 year are:

| President | Beth Todd | University of Alabama | 205-348-1623 |
|--|--------------------|------------------------------------|--------------|
| President Elect | Laura Lackey | Mercer University | 478-301-4106 |
| Secretary-Treasurer | Shelton Houston | University of Southern Mississippi | 601-266-4896 |
| Immediate Past President | Dennis Fallon | The Citadel | 843-953-6588 |
| Vice Presidents | | | |
| Programs Unit | Tulio Sulbaran | University of Southern Mississippi | 601-266-6419 |
| Awards and Recognition Unit | Peter Hoadley | Virginia Military Institute | 540-464-4552 |
| Publications and Promotion Unit | B. K. Hodge | Mississippi State University | 662-325-7315 |
| Division Chairs | | | |
| Administrative Division | Fazil Najafi | University of Florida | 352-382-9537 |
| Bioengineering Division | Renee Rogge | Mercer University | 473-301-2454 |
| Chemical Engineering Division | Donald Visco | Tennessee Technological University | 931-372-6352 |
| Civil Engineering Division | Tim Mays | The Citadel | 843-953-7678 |
| Computer Engineering and Technology Division | J.W. Bruce | Mississippi State University | 662-325-1530 |
| Electrical Engineering Division | Chris B. Effiong | University of Tennessee at Martin | 731-587-7381 |
| Engineering Graphics Division | Ted Branoff | North Carolina State University | 919-515-1747 |
| Engineering Technology Division | Brent Jenkins | Southern Polytechnic University | 770-528-7433 |
| Industrial Engineering Division | Dennis Kulonda | University of Central Florida | 407-823-5568 |
| Instructional Division | Keith Plemmons | The Citadel | 843-953-7677 |
| Mechanical Engineering Division | Chris Emplaincourt | Mississippi State University | 662-325-8787 |
| Research Division | Paul Wilder | Indiana Institutite of Technology | 260-422-5561 |
| Software Engineering Division | David Dampier | Mississippi State University | 662-325-8923 |
| Campus Representative Coordinator | Thomas Dion | The Citadel | 843-953-7676 |
| Proceedings Editor | Barbara Thomas | Southern Polytechnic University | 770-528-4283 |
| Newsletter Editor | Ken Brannan | The Citadel | 843-953-7685 |

A complete listing of the section officers may be found on the ASEE-SE web site at http://cee.citadel.edu/asee-se/

University of Tennessee at Chattanooga to Host 2005 Conference

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inside Arthur's World," a national traveling exhibition based on the Emmy award-winning PBS children's television series and popular Marc Brown books. The Aquarium will be opening its 60,000 square foot, \$30 million expansion which expands the world's largest freshwater exhibit to the saltwater environment. For those interested in history, the Chickamauga Battlefield, Missionary Ridge, Lookout Mountain, and Signal Mountain provide endless exploration.

The host hotel for the 2005 ASEE-SE Meeting is the Read House Hotel & Suites. The Read House is a Historic Hotel of America and is listed in the



National Registry of Historic Places. Winston Churchill,

Andrew Johnson, Ronald Reagan, Bob Hope and numerous other political dignitaries and entertainers have stayed at the hotel because of its charm and elaborate antebellum architecture and decor. The hotel has ten unique floors all honoring a different battle of the Civil War. The hotel combines a rich historical sense of place with the latest in modern conveniences. Built in 1927, the hotel has retained its period architecture. The Hotel is located downtown within walking distance to many restaurants, Warehouse Row factory outlets, Miller Plaza, Tennessee Aquarium, Discovery Museum, Coolidge Park, and other downtown attractions. UTC's campus is not far away either.

Spring is an ideal time to visit Chattanooga. The city and surrounding area are bursting with color from the blooming spring flowers, and pear and dogwood trees. The temperature is comfortable and welcoming. Come early or stay after the conference to enjoy all that Chattanooga offers! (Check out *Chattanoogafun.com* for more information on Chattanooga.)

Section Awards for Excellence

At the 2004 Annual Meeting in Auburn, a number of awards were given for excellence in engineering education. The list of recipients and the awards are:

Section Outstanding Teaching Award
Section Outstanding Mid-Career Teaching Award
Section Outstanding New Teacher Award
Section New Faculty Research Award
New Faculty Research Award Second Place
Thomas Evans Instructional Paper Award
Outstanding Campus Representative Award
Campus Representative Award Runner-up
Tony Tilmans Service Award

Rebecca Toghiani
J. Wesley Hines
Lisa Bullard
Chang-yu Wu
Matthew W. Ohland
Julie E. Sharp
Richard Mines
Donald Visco
Peter W. Hoadley



Paul Wilder congratulates Chang-yu Wu, recipient of the Research Award

Mississippi State University
University of Tennessee
North Carolina State University
University of Florida
Clemson University
Vanderbilt University
Mercer University
Tennessee Technological University
Virginia Military Institute

President's Message

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hosts and conference organizers, Dr. P.K. Raju and all of his committee members. A new feature of the conference was an engineering education exhibition. It was well attended and useful. (I left with two new textbooks to consider for fall classes, so "Change is Good.") I also want to thank our outgoing President, Dennis Fallon, and all of the Section officers who worked very hard last year in getting our new Bylaws into shape and in putting together a great program for the conference.

A little over four years ago, a Bylaws Committee was formed and began asking difficult questions about how to structure our section to aid faculty in meeting the challenges that we will face in the 21st century. Many leaders of our section worked on creating a new set of bylaws that keeps the best of what we have while creating opportunities for new directions and programming for faculty development. We envision becoming the primary organization for meeting faculty members' professional needs for all of the engineering institutions in the southeast, regardless of whether their primary focus is research or teaching. We need your help in letting us know what professional needs you have. If you're a department head or dean, we need to know what you would like to see for your junior faculty. While ASEE as a national organization offers many career enhancing opportunities for us, we realize that geographic proximity can provide for more participation by a greater number of members. Letting us know what you want will lead to continued quality in everything that we do. Don't constrain yourself by thinking that ASEE-SE has never offered a certain type of activity before. Remember, "Change is Good".

Since I first joined ASEE in 1995, I have watched the Southeastern Section become a more inclusive organization. The officers of the section come from a wider variety of backgrounds than ever before. We also continue to represent the breadth of the Southeast geographically. However, with 65 member institutions in the Southeastern Section, we have room to become even more welcoming with a higher level of participation. Increasing the level of activity in our organization means that we are serving more members. Again, "Change is Good".

Now, while "Change is Good", we need to continue the prime activity that we have done so well in the past—our spring conference. I want to encourage everyone who attended the meeting in Auburn to join us on April 3-5, 2005 at the University of Tennessee at Chattanooga. I also want to challenge you to encourage someone to come who has not been active in ASEE Southeast before, or lately. The theme of the UT-Chattanooga conference is "Engineering 2020 VISION of the Future". We will join together to try to imagine where our profession will go in the next 20 years and how we can change and grow together to get there. Abstracts for peer-reviewed papers are due September 24th to Cecelia Wigal at Cecelia-Wigal@utc.edu. Paper submission is an opportunity for you to show all of us how you are dealing with the change that we face daily, whether it is technological growth or cultural change in our society. The conference will have all of the great programming that we have come to expect as well as the opportunity for some fun in Chattanooga. I know that the host committee really wants to show off their city.

I also look forward to meeting you in Chattanooga in April.

Beth Todd

Campus Rep Corner

Greetings to Fellow Campus Reps:

As the end of this academic year meets us, I want to personally thank each and every one of you for the work that you did this past year that helped contribute to an outstanding year for the Southeastern Section. Over the past five years, the Section has been working on revising its Constitution and Bylaws. Through the efforts of many, the Section's new organizational structure was put into place during the Auburn conference this Spring, and as a result I observed an increased level of energy and enthusiasm among those who attended. One of the foundational goals of re-organization was to place more emphasis within the Section at the Division level. The Section's special interest divisions (Administrative, Instructional, and Research) as well as its professional interest divisions (BioEngineering, Chemical, Civil, Computer Engineering and Technology, Electrical, Engineering Technology, Engineering Graphics, Industrial, Mechanical, and Software) are the backbone of this organization, and the future success of the Section is grounded at the grass-roots level within the divisions. The Division is where the solicitation for conference papers within that division occurs, as well as coordinating and participating in paper reviews. These efforts are manifested in the number of peer reviewed papers accepted for publication/presentation and the number of technical

sessions offered at the conference. It is hoped that the reorganized structure of the Section will provide for increased participation within each division. One of my goals as Campus Reps Coordinator is to assist Division Officers in doing a better job in communicating with the general Section membership that has similar interests to increase division participation. I will be contacting you later this summer in this regard.

In closing, I would like to acknowledge the outstanding activities of Dr. Richard Mines of Mercer University. He has won for the third year in a row, the Section's Most Outstanding Campus Representative Award" presented to him at Auburn. Congratulations, Rich! Not far behind, however, was Dr. Donald Visco of Tennessee Technological University, and he was presented with the Section's Runner-Up Award.



Thomas Dion congratulates Richard Mines, recipient of the Campus Rep Award

If I can be of any assistance to you, please let me know.

Thomas Dion

ASEE-SE Campus Reps Coordinator