# OF THE ASEE GULF-SOUTHWEST SECTION

# September 2010

# Newsletter Editor Corner

Welcome to another installment of the ASEE Gulf-Southwest Section Newsletter, which is issued annually. The Section had a wonderful meeting in Lake Charles, Louisiana (hosted by McNeese State University). Although this is the first Section meeting that I have personally missed in many years, I have heard rave reviews about it. What is not to like honestly when the organization is first class, the site is a hotel-resort and the hospitality is second to none. I have also heard that there were some excellent talks given during the conference. So my personal congrats to the organizers on a very well done meeting that continued the tradition of excellent conferences our Section is known for.

The 2011 meeting (see more info below) is gearing up to be another excellent edition for our GSW Section. This conference comes at the heels of national discussions on the importance of engineering and technology education for our national competitiveness on the international stage. I encourage you all to get engaged.

Tariq Khraishi, Section Newsletter Editor



The 2010 ASEE Gulf Southwest Section's Annual Conference, sponsored by McNeese State University, was held March 24-26, 2010 at L'Auberge du Lac Casino Resort in Lake Charles, LA. The conference theme was "Bridge to Industry – Educating the Future Industry Bound Engineer and Technologist". The conference began on Wednesday afternoon with a pre-conference workshop on "Writing Better NSF Engineering Education Proposals" presented by Dr. Lance Perez, Program Director for the National Science Foundation's Division of Undergraduate Education. Twenty two people attended the workshop. Following a short social, the attendees had the opportunity to attend a reception and dinner that evening and were entertained by Mr. Jonathan Perry, a local comedian also known as the "Cajun Ambassador." Paper presentations started on Thursday morning

after breakfast and a welcome address from the conference chair, Dr. Nikos Kiritsis, and the ASEE Zone III Chair, Dr. Charles McIntyre from North Dakota State University.

There were two Keynote Speakers at the conference. Mr. Dan Moesser, Optimization Manager at the ConocoPhillips Lake Charles Manufacturing Complex, talked about the latest technology trends in the petroleum refining industry during the luncheon on Thursday. Mr. Lionel Young, Director of Advanced Technology for the Flowserve Corporation, talked about today's leaders as problem solvers during the luncheon and awards ceremony on Friday. In addition, Dr. Thomas Hall, ASEE Vice President for Institutional Councils and Head of the Department of Engineering Technology at Northwestern State University of Louisiana.

The conference was attended by 109 faculty and 51 students for a total of 160 people. We also had 6 vendors that displayed their products and services in the foyer just outside the conference rooms. A total of 22 sessions were planned for the 86 conference paper/abstracts. The conference had a mix of topics on engineering education ranging from curriculum development to enrichment, retention and new initiatives. In addition to the faculty papers, the conference included both undergraduate and graduate student poster session competitions. We had 26 graduate posters and 12 undergraduate. All faculty papers as well as full student papers representing the posters were published in the conference proceedings on a CD-ROM format.

McNeese State University was honored to host the conference on campus and on behalf of the administration, faculty, staff, and students of McNeese State University, the College of Engineering and Engineering Technology we thank you for participating and making this year's conference a huge

success. Next year the conference will be hosted by the University of Houston's College of Technology. It is shaping up to be a great conference and I hope to see you all there.

Nikos Kiritsis, 2010-2011 Section Chair

Enjoy these pictures from the meeting:









Greetings from Baylor University! As the Past Chair I would like to encourage you to participate in the ASEE GSW conference this next year at Houston, TX hosted by the University of Houston. I know how much work and effort goes into this undertaking and your support would be appreciated. Consider volunteering for being a host for a future conference. I also would like to encourage you to not only submit an abstract on something you are doing in your classes for this year, I would encourage you to allow your undergraduate and graduate students to submit abstracts. In all my years of involvement with the ASEE GSW, allowing students to write papers (or develop posters) and to present their work has been one of the many rewarding aspects of the conference. The experience students gain through this process is a good prelude to possible graduate school or work that might be done for an employer. I personally enjoy spending time with the students on these types of projects. Students often see an aspect of being a professor that they had not previously considered by attending a conference and listening to us talk about the profession of engineering education. This may even inspire them to become a professor someday in the future. One never knows where these efforts lead but to be sure, the time spent with students and developing these skills will pay huge dividends later in their lives.

Ken Van Treuren, Past Section Chair

#### A Word from Program Chair



Upcoming section meeting:
The American Society for Engineering
Education (ASEE)
The 2011 ASEE-GSW Annual
Conference
Organized by the University of Houston
College of Technology

March 9-11, 2011 Houston, Texas

# "Innovating Engineering and Engineering Technology Education".

The University of Houston and its College of Technology invite engineering and engineering technology educators and students as well as industry professionals to attend the 2011 ASEE-GSW Annual Conference and to submit papers. The conference will be held at the Westin Oaks (at the Galleria) in west Houston. All papers related to engineering and engineering technology education will be considered, but the following are areas of particular interest to the organizers:

- ABET Accreditation Issues
- Capstone Design
- Curriculum Development
- Energy Related Education Issues
- Ethics and Professionalism
- Health and Bio-Engineering Issues
- Industrial/Academic Collaboration
- Multidisciplinary Education
- Outreach Programs
- Recruitment and Retention
- Understanding Students' Issues

#### Web-based Learning

#### **Important Dates:**

October 11, 2010 Paper Abstracts Due October 18, 2010 Authors Are Invited to Submit Full Papers

November 29, 2010 Full Manuscripts Due January 12, 2011 Comments to Authors February 9, 2011 Final Revised Papers Due November 1, 2010 Early Registration Begins

January 17, 2011 Early Registration Ends January 18, 2011 Regular Registration Begins

#### **Conference Website:**

#### www.uh.edu/aseegsw2011

Fore more information please contact: Dr. Farrokh Attarzadeh Conference Chair, 2011 ASEE-GSW Annual Conference Dept. of Engineering Technology University of Houston Houston, TX 77204-4022 713.743.4078 fattarzadeh@uh.edu



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You can find us on-line at the following URL: <a href="http://www.aseegsw.org/">http://www.aseegsw.org/</a>

This link contains searchable proceedings from past Section meetings.



@ the 2010 ASEE-GSW Section Annual Meeting

by Habib P. Mohamadian, Section Awards Committee Chair

- Outstanding Campus
  Representative Award (Certificate):
  Not awarded
- Outstanding Teaching Award (Certificate and \$500):
  Not awarded
- Outstanding Young Faculty Award (Certificate and \$500):
   Not awarded
- Outstanding Service Award (Certificate and \$500): Tariq Khraishi, University of New Mexico
- Conference Person-Mile Award
   (Traveling Trophy):
   Jiangning Che and Zhou Zhihua,
   Donghua University, Shanghai, China
   (21,374 miles from Lake Charles to
   Shanghai and back. Two people for a
   total of 42,748 miles)
- Graduate Student Paper Awards
- 1<sup>st</sup> Place Award (Certificate and \$200):

Allison McMahon, Matthew Jacobs and Mary Baker Texas Tech University Analysis and Comparison of Gait Between Subjects Walking Via Treadmill Versus Ground

 2<sup>nd</sup> Place Award (Certificate and \$150):

Ebubekir Beyazoglu, Stephen Akwaboa, and Patrick Mensah Southern University and A&M College Multiscale Study on the Thermal Model of the Thermal Barrier Structure

# 3<sup>rd</sup> Place Award (Certificate and \$100):

Juan Hincapie, Richard Jones and Jerry K. Keska University of Louisiana at Lafayette Validation of Experimental Data Using Concomitant Measurement Systems

- Undergraduate Student Paper Awards
- 1<sup>st</sup> Place Award (Certificate and \$200):

Justin Loop, Mequanint Moges University of Houston Smart Heart Monitoring System

 2<sup>nd</sup> Place Award (Certificate and \$150):

William Eaves, Ning Zhang McNeese State University Experimental and Numerical Investigations of Flow Over Flapping Airfoil

# 3<sup>rd</sup> Place Award (Certificate and \$100):

Bradley Sanders, Kenneth VanTreuren, Stephen T. McClain Baylor University Heat Transfer Measurements of a Low Pressure Pak-B Gas Turbine Vane Under uioSeparate Flow Conditions



The Chair of the Section Awards Committee, Professor Habib Mohamadian, wants to share with Section members information regarding Section awards and nomination procedures below. This information should be kept on file if you anticipate making or getting a nomination.

## **ASEE Section Outstanding Teaching Award**

This award is given by each ASEE section, with support, where possible, from local industry. The award, which focuses on outstanding classroom performance, recognizes teachers of engineering and engineering technology students and serves as an incentive to make further significant contributions to teaching.

The Award: The award consists of a certificate, prepared by ASEE National Headquarters, and an appropriate honorarium, where possible, presented by the local section. Each section shall determine its own level of the honorarium and fund the honorarium from its Banking and Accounting Services System fund. Presentations are made at the section annual meeting with notation in the ASEE Annual Awards Banquet Program.

**Qualifications:** Candidates may be teachers of any subject included in an ABET/CEAB accredited engineering or engineering technology curriculum (including TAC/ABET). In addition to technical courses, subjects may include the humanities and social studies, mathematics and science.

The teacher, as an individual, must:

- Possess and be able to communicate a broad and accurate knowledge of the subject area.
- 2. Possess self-confidence, create a feeling of harmony between self and students and be able to meet difficulties with poise.
- Possess a sense of proportion, stressing fundamentals and disregarding trivial detail. Give assignments that challenge students, demanding thinking in the completion of assignments.
- Demonstrate such an intense interest and enthusiasm for the subject area and for the enhancement of learning processes that students are motivated to their fullest capacities.
- 5. Be available for advising and counseling students before and after graduation.
- 6. Teach a minimum of two semester or three quarter courses per calendar year.

- 7. Have considerable endorsement from students, using both regular course evaluations and individual letters of recommendation as evidence.
- Attend the section annual meeting at which the award is presented; and make a presentation at that meeting (or the following section meeting) to share some elements of his/her success as a teacher.
- 9. Possess a strong record of activity in ASEE or the educational activities of another professional society.

The teacher's contributions to the profession should include at least three of the following:

- 1. Participation in the development of courses or curricula.
- Development of teaching equipment or development of a wider application of teaching equipment previously developed.
- 3. Contribution to the improvement of laboratories or other facilities.
- 4. Development or authorship of instructional material or a text that enhances the student learning process.
- Publication of original work, through any medium, that enhances the engineering and engineering technology education process or adds to the literature pertaining to teaching methodologies.
- Service as a mentor to other teaching faculty or participation in the conduct of seminars and workshops that are focused on helping other teachers improve their classroom effectiveness.

# Outstanding Section Campus Representative Award

The Campus Liaison Board of ASEE has initiated this award in order to recognize those ASEE Campus Representatives who have achieved excellence in their roles as the Society's representative on campus. The ASEE Campus Representative acts as a liaison to help determine members' interests and reactions to Society programs and publications, to stimulate interest among the faculty in section and national meetings and to promote individual membership and involvement. This award is bestowed annually upon those ASEE Campus

Representatives who have demonstrated staunch support for ASEE on their campuses.

**The Award:** The award consists of a certificate to the ASEE Campus Representative selected from each section and is presented at the section meeting.

**Award Criteria:** Nominees must have served ASEE significantly through active participation in the following areas:

- Recognition of outstanding teaching and research activities on his or her campus by submitting ASEE award nominations and support of the New Engineering Educators program.
- 2. Encouragement of faculty members to submit articles to ASEE publications.
- 3. Encouraging faculty members to submit papers for presentation at section and national meetings.
- Promotion of individual membership in ASEE.
- Encouragement of faculty attendance at section, division and national ASEE meetings.

Selection Criteria: Each ASEE Campus
Representative should submit an annual form to
his or her respective Section Campus
Representative outlining ASEE activities on his
or her campus. The form is found in the Campus
Representative Manual. The appropriate Section
Campus Representative will select the recipient
of the award based on the evidence that
indicates consistent and outstanding promotion
of ASEE on campus according to the above
award criteria.

## Outstanding Zone Campus Representative Award

Each Section Campus Representative will forward to the respective Zone Chair the name of the Section Campus Representative Award recipient together with the appropriate documentation. The Zone Chairs will then select the recipients of the Outstanding Zone Campus Representative Awards.

The Award: The award consists of a plaque to be presented to the ASEE Campus Representative, selected by each Zone Chair, at the ASEE Annual Conference.

#### **Best Paper Awards**

Each year three awards are given to the best engineering education papers published and presented at the annual meeting of the ASEE-Gulf Southwest (GSW) Section. Awards in the amounts of \$300, \$200, and \$100 are given to the first, second and third placed papers, respectively. In addition certificates of recognition are presented to the authors of the selected papers. In the case of co-authors, individual certificates will be presented, but the honorarium will be split among the number of authors. Award presentations are made at the Honors and Awards Luncheon of the ASEE-GSW section.

Qualifications: The paper must be presented by the author(s) at the annual meeting. The paper must be an original paper written specifically for and published in the Proceedings of the ASEE-GSW Section Annual Conference. It is permissible that the paper be of similar content to the papers written by the same author(s) for other conferences.

**Selection:** The members of the ASEE-GSW Section Awards Committee will select the best papers.

#### **Outstanding Service Award**

**Purpose:** To recognize a member who has demonstrated a long history of service to engineering education and/or the ASEE-GSW section.

The Award: The award consists of a \$500 honorarium and a certificate of recognition. Presentations are made at the section annual meeting with notation in the ASEE Annual Awards Banquet Program.

**Qualifications:** Any current or past member of GSW section with a distinguished record of service to engineering education and/or the

ASEE-GSW section shall be eligible for this award.

Nomination: Any member of the section may nominate candidates for this award by preparing a nomination package that includes an ASEE General Award Nomination Form, candidate's curriculum vitae, and a nomination rationale statement highlighting the service to engineering education and/or the ASEE-GSW section. Supporting letters are recommended to strengthen the nomination but not required.

The selection will be made by the section Awards Committee. The nomination package should be mailed to the ASEE-GSW section Awards Committee Chair.



The following is a summary of topics that might be useful to new Campus Representatives (CRs), prospective CRs, and the general membership.

#### What is a Campus Representative?

Campus Representatives serve as the liaison between ASEE Headquarters and faculty and students on campus. They play a vital role in recruiting new members, informing their colleagues about the ASEE meetings announcements, call for papers, and other ASEE activities. If you are a new CR or interested in becoming one, the ASEE Campus Representative Operating Manual provides useful information. This can be accessed through the following ASEE link: http://www.asee.org/members/resources/ca mpusRepOperatingManual.cfm

Do you know if you are a Campus Rep? To have a complete and accurate CR list on file for communication/information purposes, the following is requested:

- i) Check the following link to see if your college holds an ASEE institutional membership http://www.asee.org/members/organizatio ns/oncampus/memberSchoolsBySection.cf
- ii) Check the following website to see if you or someone else from your institution is listed as a CR. http://www.asee.org/members/organizations/ oncampus/campusRepsBySection.cfm#303
- iii) If any corrections or updates are necessary, please contact your own Dean's Office and ask them to contact the ASEE-membership department at membership@asee.org, (202) 331-3521.

#### **Campus Representative Activity Report:**

As a Campus Representative you are asked to submit a report each year to provide a summary of ASEE activities at your campus. The completion of this report is very simple. Typically, an electronic Activity Report form is sent to Campus Reps in August or September. If you don't receive the form, you may download this form from the following site: http://www.asee.org/activities/organizations/ campus/documents/CR ActivityRpt06-07.doc. Most common activities are already listed on the form. You just need to mark those activities already implemented or planned for the future on your campus. The form also includes a section on reporting the Dean's actions. Consulting with the Dean in completing the form might also be very useful in gaining his/her support in conducting ASEE activities at your campus. The deadline for submission of report is the report should be sent to your Section

the 31st of October each year. One copy of Campus Representative and one copy to ASEE's Membership Department.

These reports are used to select the Outstanding Campus Representative for the Section. The reports from the winners of the Outstanding Campus Representatives from each section are given further consideration for the Outstanding Zone Campus Representative Award. The Outstanding Campus Representative Award is presented at the Annual Section meetings. The Outstanding Zone Campus Representative Award is presented at the Awards Banquet at the ASEE Annual Conference along with the Society's other national awards. Our GSW section winners have done well in the past winning the Outstanding Zone III Campus Representative Award. Dr. Troy F. Henson from The University of Texas-Tyler received both awards in 2005.

Spread the Word: This membership promotional program is designed to encourage Campus Reps to spread the word about ASEE membership on their campuses. "The Deans Program" is designed to assist CRs in recruiting new members. Through this program new members can receive two years of free membership. If the Dean provides funds to cover the first year's membership cost, ASEE will waive the second year's membership fees. Each year during the Campus Representatives receptions at the ASEE Annual Conference awards are presented to the Campus Representatives that recruit the highest number of members and the highest percentage of members in their section.

**ASEE-GSW Section Bylaws:** The GSW Section Bylaws are posted on-line at our Section's website (<a href="http://www.aseegsw.org/">http://www.aseegsw.org/</a>)

#### **Future ASEE-GSW Section Meetings:**

The following institutions have volunteered to host future ASEE-GSW meetings: 2011 University of Houston - Houston, TX (Farrokh Attarzadeh),

2012 University of Texas at El Paso (Arun Pennathur), 2013 University of Texas at Arlington (Carter Tiernan) 2014 ASEE GSW Section Conference (Geographic East-side of Section): Not yet

determined



### **\$Treasurer Report \$**

These are the balances of GSW accounts:

GSW-Awards Account: \$15,541.21 as of 12/31/09

GSW-BASS Account: \$33,227.87 as of 12/31/09

GSW-Operating Account: \$550.00 as of 12/31/09

Jerry K. Keska



#### RESOLUTION

Let it be resolved that the Gulf-Southwest Section of the American Society for Engineering Education (ASEE) expresses its sincere appreciation to McNeese State University for hosting our 2010 Annual Section Meeting here in beautiful Lake Charles, Louisiana, and in particular expresses sincere gratitude to: Conference Chair Dean Nikos Kiritsis for his tremendous efforts in organizing the meeting and associated activities. We know how hard you worked, Nik.

Thanks also go to the organizing committee, **Drs. Zhuang Li, Ning Zhang, Stanley Klemetson, Qiu Liu,** and **Pankaj Chandra,**, for arranging all the excellent paper technical sessions; and especially thanks go to **Ms. Lisle Howard** for all your administrative support.

Let us also thank the fine luncheon keynote addresses from our industrial friends, **Mr. Dan Moesser** of Conoco-Phillips, and **Mr. Lionel Young** of Flowserve Corporation. And of course, who could forget the wonderful humor supplied by **Mr. Jonathan Perry**, "The Cajun Ambassador."

Let us also recognize the fine preconference workshop on "Writing Better NSF Engineering Education Proposals" conducted by **Dr. Lance Perez** of the National Science Foundation. Likewise, we express our gratitude to ASEE Vice-President **Dr. Thomas Hall** for attending our meeting and sharing with us his hope for sustaining innovation in engineering education, and to **Dr. Charles McIntyre** for representing ASEE Zone III at our meeting.

Let it be recognized that the L'Auberge du Lac (or "Inn on the Lake" for us who do not know French) was an excellent hotel venue choice for our meeting, with fine guest rooms for our comfort, excellent cuisine to satisfy our hunger, and conveniently positioned casinos to add to our overall entertainment. And even if we go home empty-handed, we will have fond memories of Lake Charles and the money we left behind.

And let us gratefully acknowledge the support and financial donations from our vendors, sponsors, and exhibitors:

Hampden Engineering Corporation, Lake Area Industry Alliance, Test Equity LLC, Spectra Quest Inc., DAC Pignat, and JM Systems and Agilent.

Thus, let it be recognized that all attendees, from near and far, enjoyed immensely the friendly collegiality, the intellectually stimulating paper presentations, the delicious food, and the local "Cajun" hospitality. Finally, let this resolution be recorded on the permanent records of the Gulf-Southwest Section and be distributed to appropriate officers of the Society.

Respectfully Submitted on **March 26, 2010** 

ASEE GSW Section Resolutions Committee

Ronald E. Barn

Dr. Ronald E. Barr, Committee Chair

#### In Memoriam



William (Bill) McCarthy who served as the Secretary-Treasurer of ASEE-GSW section from 1994 to 2002 passed away on July 29, 2009. He received the ASEE-GSW section Outstanding Service Award in 2005. Bill earned his PhD degree in Civil Engineering from New Mexico State University (NMSU) in 1981 and joined the civil engineering faculty of that institution in 1981 and advancing through ranks to full professor in 1995. During his tenure at NMSU, he has served as associate dean of engineering, interim dean of engineering, and interim associate provost. Bill received several awards and recognitions at NMSU which included Frank Bromilow Award, The Chi Epsilon Southwestern District James M. Robbins Award and the Dennis Darnall Faculty Achievement Award in 2000. He served as president of the NMSU Chapter of Phi Kappa Phi and was a member of Chi Epsilon and Tau Beta Pi Honor Societies. NMSU dedicated the William C. McCarthy STEM Memorial Laboratory on Feb. 16, 2010. The university has established a memorial scholarship fund honoring Bill McCarthy (phone:575-646-2913).