

NEWSLETTER

OF THE ASEE GULF-SOUTHWEST SECTION

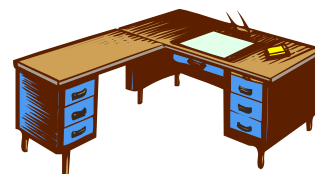
August 2008

Newsletter Editor Corner

Welcome again! Our last Section meeting in Albuquerque was a wonderful one! I feel uneasy heaping praise on the conference because we were in charge of organizing it. We felt, from feedback we got, that the event was organized and that paper authors were generally satisfied with their grouping into themed sessions. We also heard positive feedback about the hotel and the conference location. The importance of location is not absent from this annual conference series. So far it's been held in very nice spots and nice hotels, which makes the overall experience from the conference a positive one. The Albuquerque conference had its usual share of intriguing paper presentations that the attendees learned from to improve their own teaching methods.

The Section is now gearing up for another exciting meeting hosted by the Baylor University. The meeting will be held in the fine city of Waco, Texas. We look forward to a successful meeting in 2009! More on this meeting can be found later in this Newsletter.

Tariq Khraishi, Section Newsletter Editor



The Chair's Corner

The Chair's Corner

The 2008 ASEE Gulf Southwest Section's Annual conference, sponsored by the University of New Mexico (UNM), was held on March 26-28 at the Albuquerque Marriott hotel in New Mexico. The conference included, on Wednesday afternoon, a workshop entitled: "New Directions for Campus Diversity and the Impact on Funded Research" conducted by Dr. Roberto Ibarra, Associate Professor of Sociology, book author on higher education diversity, and former Special Assistant to the UNM President for Diversity. The theme for the conference was "Current and Future Challenges and Opportunities in Engineering Education". The main program was a mixture of full papers, poster presentations, cutting edge works-in-progress and highly interactive, as well as intriguing, sessions on engineering education.

Highlights of the conference included welcome and informative speeches by Dean Joseph Cecchi, UNM School of Engineering, Dr Wynn Goering, Vice Provost for Academic Affairs at UNM, Dr James L. Melsa, ASEE National President, and Dr Ralph E. Flori, ASEE Zone III Chair.

There were also two plenary talks by: Dr Neal Shinn, User Program Manager, DOE Center for Integrated Nanotechnologies (CINT), Sandia National Laboratories, who provided an overview of CINT, its mission, structure, capabilities, services and provided information about the User Program and its proposal process, and Dr Gerhard Salinger, Program Director in the Division of Research on Learning in Formal and Informal Settings (DRL) in the Directorate for Education and Human Resources (EHR) at the National Science Foundation (NSF), who discussed some of NSF's funding opportunities pertaining to engineering education and touched upon the ASEE-sponsored Global Colloquium on Engineering Education.

The program included 18 sessions with 68 regular papers and 26 student papers. Student papers were presented during a poster session. The conference proceedings were published on a CD-ROM. Attendance at the conference was approximately 110, counting students.

On behalf of the University of New Mexico administration, faculty, staff, and students, we thank all who participated in this conference for all their contributions towards making it successful.

Hope to see many of you at next year's meeting at Baylor University - Waco, Texas. It should be a good one!

Tariq Khraishi, 2008-2009 Section Chair

A Word from Program Chair



Upcoming section meeting:
**The American Society for Engineering
Education (ASEE)
2009 Gulf-Southwest (GSW) Annual
Conference
March 18-20, 2009
Hosted by Baylor University**

“Engineering Education Today for the Challenges of Tomorrow”

Baylor University and the School of Engineering and Computer Science invites your participation in the 2009 ASEE-GSW Conference. The conference will be hosted on the Baylor campus and will showcase presentations by faculty and students who are passionate about engineering education. Hotel options will be included on the website. Section awards will be presented. The Conference solicits a wide scope of topics related to engineering education.

Topics of interest include:

The Future of Engineering Education
Service Learning
Challenges Facing Engineering Education
Global Engineering
Ethics in Engineering Education
Student Recruitment and Retention
Innovative Use of Technology in the Classroom
Curriculum Innovations
K-12 Education/Skills gap
Other Engineering Topics

Important Dates:

October 15, 2008 Abstracts due
 October 30, 2008 Abstract reviews complete
 December 15, 2008 Manuscripts due
 January 30, 2009 Reviews complete
 February 16, 2009 Final manuscripts due
 March 2, 2009 Final registration
 Conference Website (active end of August):
<http://www.ecs.baylor.edu/aseegsw>

For More Information, contact the Program Chair:

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Find Us on the Internet

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

This link contains searchable proceedings
from past Section meetings.



2007-08 ASEE-GSW Awards

@ the 2008 ASEE-GSW Section Annual Meeting

Habib P. Mohamadian, Section Awards
Committee Chair

- ***Outstanding Campus Representative Award (Certificate):***
Walter W. Buchanan, Texas A&M University- College Station, Texas
- ***Outstanding Teaching Award (Certificate and \$500):***
Muhammad Zaman, University of Texas at Austin, Texas
- ***Outstanding Young Faculty Award (Certificate and \$500):***
Laura J. Suggs, University of Texas at Austin, Texas
- ***Outstanding Service Award (Certificate and \$500):***
None awarded this year
- ***Conference Person-Mile Award (Traveling Trophy):***
University of Houston (# participants: 12, # miles: 9024)
- ***Graduate Student Paper Awards***
 - **1st Place Award (Certificate and \$150):**
Scott T. Lovald, Tariq Khraishi, Juan Heinrich, Howard Yonas, and Christopher Taylor, University of New Mexico, “Investigating the Role of Fluid Dynamics and Wall Mechanics in Atherosclerosis, Plaque Rupture, and Plaque Excavation in the Human Carotid Bifurcation”
 - **2nd Place Award (Certificate and \$100):**
Michael Sheyka, M.M. Reda Taha, T. Khraishi, I. El-Kady, and Mehmet F. Su, University of New Mexico, “Simulation of Damage in Three Dimensional Metallic Photonic Crystal Due to Micro-indentation”
 - **3rd Place Award-tie (Certificate and \$75):**
K.C. Praveen, and Malur N. Srinivasan, Lamar University, “Assessment of Effect of Resistivity” in Resistance Butt Welding of Wire Rods”
 - **3rd Place Award-tie (Certificate and \$75):**
Scott T. Lovald, Tariq Khraishi, Jon Wagner, and Bret Baack, University of New Mexico, “Postsurgical Finite Element Analysis of Mandibular Fracture Fixation”
- ***Undergraduate Student Paper Awards***
 - **1st Place Award (Certificate and \$150):**
Juan Hernandez, Michael Alegre, Dragan Siljegovic, Robie Calong, Farrokh Attarzadeh, Ankur Shukla, and Vishal Naik, University of Houston, “Network Controlled Data Acquisition Drone”
 - **2nd Place Award (Certificate and \$100):**
Matthew Moreno, Amador Salazar, Rafael Gijon, Sangita Prajapati, Farrokh Attarzadeh, Mayuri Mahajan, Aditya Gupta, and Prafulla Kesari, University of Houston, “Active Vehicle Water Level Monitoring System”
 - **3rd Place Award (Certificate and \$75):**
Nana-Kwaku Danquah, Patrick Mensah, Samuel Ibekwe, and Guoqiang Li, Southern, University at Baton Rouge, “Determination of Thermal Expansion Coefficients of High Temperature Materials”

- **Best Paper Awards**
- **1st Place Award (Certificate and \$300):**
Kristi J. Shryock and Helen L. Reed, Texas A&M University, “ABET Accreditation - Best Practices for Assessment”
- **2nd Place Award-tie (Certificate and \$200):**
Mohammed E. Haque and Pallab Dasgupta, Texas A&M University, “Architectural/Engineering Visualization Using Game Engine”
- **2nd Place Award-tie (Certificate and \$200):**
Farrokh Attarzadeh, Enrique Barbieri, Ankur Shukla, and Prafulla Kesari, University of Houston, “The Role of the Teaching Assistants in a Senior Level Computer Engineering Technology Capstone Class”

Awards **Info**

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. In addition to technical courses, subjects may include the humanities and social studies, mathematics and science.

The teacher, as an individual, must:

1. 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.
3. Possess a sense of proportion, stressing fundamentals and disregarding trivial detail. Give assignments that challenge students, demanding thinking in the completion of assignments.
4. 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.
8. 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.
2. 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.
5. Publication of original work, through any medium, that enhances the engineering education process or adds to the literature pertaining to teaching methodologies.
6. 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:

1. 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.
4. Promotion of individual membership in ASEE.
5. 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.

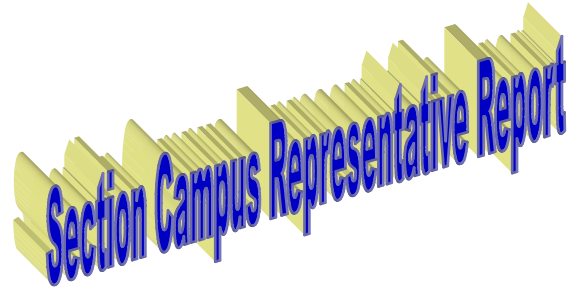
The Award: The award consists of a \$500 honorarium and a certificate of recognition. Presentations are made at the section annual meeting with notation in the ASEE Annual Awards Banquet Program.

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/campusRepOperatingManual.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/organizations/oncampus/memberSchoolsBySection.cfm>
- 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 you 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 31st of October each year.** One copy of the report should be sent to your Section 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 (<http://www.aseegsw.org/>)

Future ASEE-GSW Section Meetings: The following institutions have volunteered to host future ASEE-GSW meetings: Baylor University - Waco, TX (2009), McNeese State University - Lake Charles, LA. (2010), and University of Houston - Houston, TX.



\$Treasurer Report \$

These are the balances of GSW accounts as of May 31, 2008:

BASS account: \$24,799.37

Operating account: \$424.55

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 the **University of New Mexico** for hosting the 2008 Annual Section Meeting here in the historic city of Albuquerque, and in particular expresses sincere gratitude to:

- i. Conference Chair **Dr. Tariq Khraishi** for his continuous efforts in organizing the meeting program, paper presentations, and associated activities. We know how hard you worked, and thanks also to;
- ii. **Drs. Robert (Bob) Greenlee, Zayd Leseman, and Mahmoud Taha**, the technical papers committee, for arranging all the excellent paper sessions, with common themes;
- iii. And further to all the other members of the local organizing committee: **Drs. Marwan Al-Haik, Charles**

Fleddermann, Julie Kimsal, and Steven Peralta.

- iv. Let us also thank **Dean Joseph Cecchi** for his greetings and incisive comments on “Diversity” in a broad sense; and to **Vice Provost Wynn Goering** for his perspectives on the history of UNM and the local region.

Furthermore, let us acknowledge the stimulating keynote talks given by our two invited speakers: **Dr Neal Shinn**, Program Manager at Sandia National Laboratories for his presentation on nanotechnology; and **Dr Gerhard Salinger**: Program Director at the National Science Foundation (NSF), for his outline of NSF educational programs. And the excellent pre-conference workshop conducted by **Dr. Roberto Ibarra**.

Likewise, we express our gratitude to **ASEE President Jim Melsa** for attending our meeting and sharing with us his hope for the future of engineering education in America, and to **Dr. Ralph Flori** for representing ASEE Zone III and for being in our presence.

And let us gratefully acknowledge the support and financial donations from our sponsors **Boeing, Minitab**, and the **Albuquerque Hispano Chamber of Commerce**.

And “Cheers” to the 60 technical paper presentations, the 30 session co-moderators, and the 26 poster boards – on all kinds of topics pertaining to engineering education. What an excellent program!

And who could ever forget the beautiful singing of **Ms. Katherine Love** last night at our banquet, whose songs ranged from the angelic to fine country groove, and to **Anne Eisfeller** for today’s beautiful harp music.

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 refreshments with a local theme, the hotel hospitality and accommodations, and the beautiful scenery and tourist opportunities abounding in the state of New Mexico.

Finally, let this resolution be recorded on the permanent records of the GSW Section and be distributed to appropriate officers of the Society.

Respectfully Submitted on **March 28, 2008**

ASEE GSW Section Resolutions
Committee

Ronald E. Barr

Dr. Ronald E. Barr, Committee Chair