

# NEWSLETTER

## OF THE ASEE GULF-SOUTHWEST SECTION

October 2018



Welcome! Please find herein a new installment of the ASEE Gulf-Southwest Section Newsletter. The Section members had a wonderful meeting in Austin, Texas (hosted by UT-Austin). The meeting location was on the University campus not far from downtown Austin. The campus where the meeting was held and the food served during the meeting were outstanding. The topics covered were truly informing and educating. The meeting was well attended with lots of attendees in sessions. I salute the organizers for their efforts to put an excellent product for all attendees.

The 2019 meeting (see more info below) is gearing up to be another excellent edition for our GSW Section. This conference comes at a time where engineering education is at a cross road where a lot of changes have been happening at the National level with implications of these changes locally affecting our universities. Let's go to Tyler, TX, an oasis around the Dallas-Ft.Worth metro! ☺

*Tariq Khraishi*, Section Newsletter Editor



### The Chair's Corner

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The Gulf-Southwest section of the ASEE is one of the most populated and vibrant ASEE sections. The section covers the States of Louisiana, New Mexico, and Texas and has forty-five Institutions offering Engineering degrees. Nine of these of institutions of higher learning consistently appear in the list of the 100-best Universities. The section regularly holds an annual meeting in one of the cities of the Gulf-Southwest region that is invariably hosted by engineering faculty in one of these Institutions.

In 2018 the Annual Conference of the Section occurred in Austin, Texas. It was hosted by the University of Texas at Austin. The meeting events took place in the AT&T Conference Center and Hotel. The theme of the Conference was *Engineering Education Research: Improving Engineering Teaching*

*and Learning*. There were a total of 168 registrations. This included 78 authored papers presented in 16 different parallel sessions over two days. There were also 41 student posters presented concurrently during conference reception. There was a "Bias-Busters" Pre-Conference Workshop. There was also an engaging plenary panel on "Engineering Education Research". The papers on Engineering Education covered almost all aspects of modern engineering education from supplemental instructions; to active and collaborative learning; to STEM outreach; to software learning; to partnership between academia and non-academia. The attendees also had the opportunity to take a tour of several Engineering laboratories/buildings and hear from the professors in charge about laboratory objectives and the pedagogy they follow.

The campus was humming with construction and change/renovation and vegetations were springing in this time of year.

All the conference participants enjoyed the meals (including breakfasts, lunches, breaks and receptions), discussions, networking and cheerfulness.

Our annual conferences are vibrant, educational events where a great deal of information is exchanged. We hope to see you all in the 2019 Conference, which will be organized by UT-Tyler.

Dr. Ronald Barr and Mia Markey, 2018  
Conference Chairs



## A *Word* from Program Chair



Upcoming section meeting:  
**The American Society for Engineering  
Education (ASEE)  
The 2019 ASEE-GSW Annual  
Conference  
Organized by the University of Texas at  
Tyler**

**March 10-12, 2019  
“Branches in the Pipeline:  
Educating Engineers from the  
Roots Up”**

We are excited to announce the registration and detailed information for the 2019 American Society for Engineering Education Gulf-Southwest Section Meeting and Conference. The event, to be held at the University of Texas at Tyler March 10-12, 2019, centers around the theme “Branches in the Pipeline: Educating Engineers from the Roots Up,” and will focus on four content area tracks: Developing Leadership, Ethics and Character in Engineering Students, K-12 Engineering Education, Student Engagement in Engineering, and Teaching Innovation in the Engineering Disciplines.

Abstracts are being accepted for faculty and student presentations in these areas along with student poster presentations for student led thrusts across the engineering disciplines. The call for papers can be accessed at <https://easychair.org/conferences/?conf=aseegsw2019>, and further information about the conference, including how to register, can be accessed at <http://www.totalcamps.com/ASEEGSW>.

The deadline for Abstract Submission is February 1, 2019 (with full papers due after notification of acceptance), and early bird faculty registration ends February 1, 2019. Please spread the word to potentially interested faculty and students. Looking forward to seeing you at the conference!

Warm Regards,  
Dr. Michael McGinnis  
The University of Texas at Tyler  
Associate Dean of Engineering and  
ASEE GSW 2019 Conference Chair

# Section Officers



**Past Chair:** *(by default from previous position until June 2019)*

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**Find Us on the Internet!**

We have a new website!  
<https://gsw.asee.org/> There you will find links to previous and future conferences, newsletters, and information about our section.

We are also in the process of moving papers from the old website to the ASEE PEER repository: <https://peer.asee.org/>. This will take some time, with the most recent papers done first.

The old website will remain available through October 2019 and contains searchable proceedings from past Section meetings: <http://www.aseegsw.net/>



## 2017-18 ASEE-GSW Awards

@ the 2018 ASEE-GSW Section Annual Meeting

by Amir Karimi, Section Awards Committee Chair

- ***Outstanding Campus Representative Award (Certificate):***  
Dr. Walter Buchanan, Texas A&M University, College Sta
- ***Outstanding Teaching Award (Certificate and \$500):***  
Dr. Hung-Da Wan, Mechanical Engineering, the University of Texas at San Antonio
- ***Outstanding Young Faculty Award (Certificate and \$500):***  
Dr. Vanessa Svihla, Department of Chemical and Biological Engineering. The University of New Mexico.
- ***Outstanding Service Award (Certificate and \$500):***  
Dr. Kenneth Van Treuren, Mechanical Engineering Department, Baylor University
- ***Conference Person-Mile Award:***  
The University of Texas at Tyler.
- ***Faculty Paper Awards***

- **1<sup>st</sup> Place Award (Certificate and \$300):**  
*“STEM Enhancement in Earth Science (SEES): A NASA/TSGC/UTCSR High School Internship Program (Active, Experiential, and Collaborative Learning),”* by Timothy Urban and Margaret Baguio, Texas Space Grant Consortium, Center for Space Research, University of Texas at Austin
- **2<sup>nd</sup> Place Award (Certificate and \$200):**  
*“Control Systems and Robotics Outreach to Middle-school Girls: Approach, Results, and Suggestions,”* by Pranav A. Bhounsule (Mechanical Engineering Dept.), Ahmad Taha (Electrical and Computer Engineering, Dept.), and Sebastian Nugruho (Electrical and Computer Engineering Dept.), The University of Texas at San Antonio
- **3<sup>rd</sup> Place Award (Certificate and \$100):**  
*“Using the Internet of Things to Teach Good Software Engineering Practice to High School Students,”* by Christine Julien, Department of Electrical and Computer Engineering, University of Texas at Austin
- ***Student Poster Awards***
  - **1<sup>st</sup> Place Award (Certificate):**  
*“Development of an Emergency Medical Service Rover (EMSR): Phases 1 and 2,”* Victoria LaBarre, Elijah Espinoza, Dr. April Andreas, Paulina Sidwell, Larry Benton, Joe Rizo, McLennan Community College, Waco, Texas
  - **2<sup>nd</sup> Place Award (Certificate):**  
*“Haptic Research in Telemedical Applications,”* by Darnell R. Campbell, Sander N., Countryman, Sreerenjini, Nair Ph.D., Michael Frye Ph.D., University of the Incarnate Word, San Antonio, Texas

### **3<sup>rd</sup> Place Award (Certificate):**

*“MCC@CAT: An in-depth analysis of applying engineering education to a professional environment,”* by Reagan Hughes, Courtney McCreary, Aldo Perez, Christopher Sorensen, Brandon Trout, Bradley Ward, McLennan Community College, Waco, Texas

## **Awards Info**

The Chair of the Section Awards Committee, Professor Amir Karimi, 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.

Important Note on Section awards: The nominees of ASEE-GSW section awards are strongly encouraged to attend the conference.

### **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:

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 and engineering technology 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

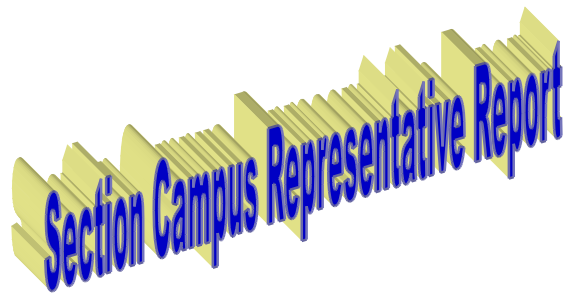
**Purpose:** To recognize a member who has demonstrated a long history of service to engineering education and/or the ASEE-GSW section.

**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](mailto: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](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 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.net/> or <https://gsw.asee.org/>)

**Future ASEE-GSW Section Meetings:**

The following institutions have volunteered to host future ASEE-GSW meetings:

2019 University of Texas at Tyler, Tyler, TX (contact: Michael McGinnis - EAST)

2020 University of New Mexico, Albuquerque, NM (contact: Tariq Khraishi - WEST)

2021 Baylor University, Waco, Texas (contact: Kenneth Van Treuren - CENTRAL)

2022 OPEN



**If your institution is interested in hosting a future meeting in 2022 or beyond, please contact Randall Manteufel at [rmanteufel@utsa.edu](mailto:rmanteufel@utsa.edu). The meeting is usually held in mid-March to early April timeframe.**



## **\$Financial Report \$**

These are the balances of GSW accounts:

GSW-BASS Account: \$25,258.05 as of 06/30/18

GSW-Operating Account: \$550.00 as of 09/30/18



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 Texas at Austin for hosting the 2018 Annual Section Meeting here in the Capital of Texas, Austin, with the conference theme: "Engineering Education Research: Improving Engineering Teaching and Learning." In particular, we express our sincere gratitude to the conference Host Committee Chair Dr. Ronald Barr, the Program Chair Dr. Mia K. Markey, the Plenary Chair Dr. Maura Borrego, and all other members of the Conference Host committee: Dr. Cynthia Wilson and Dr. Pat Ko, Ms. Margo Cousins, Mr. Walter Daniel, Ms. Krystal Boulanger. And of course, thanks for the support from UT-Austin staff members. Special thanks go to the Cockrell School of Engineering and its Dean, National Instruments, LBH, the Mechanical Engineering Department and the Biomedical Engineering Department.

Further, let it be recognized that over 78 technical paper presentations and 41 poster presentations were presented during the conference, and that best paper awards were presented in undergraduate/graduate student, and faculty categories. In addition to technical

sessions, several informal discussions were had on online teaching, best engineering education practices and re-thinking engineering education.

Let it be noted that the UT-Austin campus served as a wonderful venue for our conference, with excellent ambiance, surroundings, service, and facilities (especially the outstanding AT&T Executive Education and Conference Center). And of course, the Wednesday and Thursday receptions, Thursday and Friday luncheons, and other meals and breaks were much appreciated. They were all done superbly in the unique Tejas dining room.

Thus, let it be recognized that all conferees, from near and far, enjoyed immensely the collegiality and friendships, the technically sound and intellectually inspiring paper presentations, and the unique Heart-of-Texas hospitality, with the University of Texas Tower just steps away and the Austin down-town in close proximity. 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 April 6, 2018

ASEE GSW Section Resolutions  
Committee



Tariq Khraishi, Newsletter Editor

Important Note: the resolution is normally done every year by the ASEE GSW Section

Resolutions Committee Chair, Dr Ronald Barr. But since he was also the 2018 conference chair, he declined doing so and Dr Tariq Khraishi, the Newsletter Editor, volunteered to carry this annual task.