PI TAU SIGMA ANNUAL CHAPTER REPORT 2017-2018

South Carolina Delta Tau Chapter

A. Initiation of New Members

Current policy for initiation into the South Carolina Delta Tau Chapter is to identify (a) undergraduates who have completed their 2nd semester and are in the top 25% for GPA and (b) undergraduates who have completed their 3rd semester and are in the top 33% for GPA. The President of Pi Tau Sigma distributed a congratulatory letter to all nominees, which included details regarding the initiation process, a history of Pi Tau Sigma and the SC Delta Tau Chapter, the initiation fee, and the date for induction as well as attire requirements. In addition to the academic achievements needed for initiation, new and existing members are expected to uphold dedication to the local community through service and activities. As of last school year, the addition of graduate students from the Mechanical Engineering Department was also introduced to the SC Delta Tau Chapter.

B. Chapter Activities

B.1. Student Leadership Elections

Leadership is determined at the end of the school year by a chapter vote. Generally, at least two students are nominated for each position, and a majority vote decides the new positions. As voted by the chapter in the end of the Spring 2017 semester, the leadership that continued or began with SC Delta Tau in the Fall 2017 semester were as follows:

- Ilana Lu, President
- Andrew Meisner, Vice-President
- Abigail Simmons, Secretary
- Caleb Summe, Treasurer

The Spring 2018 elections determined the new leadership for the upcoming Fall 2018 semester. Those elected to positions include:

- Caleb Summe, President
- Andrew Meisner, Vice-President
- Abigail Simmons, Secretary
- William McMakin, Treasurer
- Eli Losoff, Webmaster

Continuing the traditions for the chapter, responsibilities of the President include organizing events, speakers, and identifying as well as recruiting initiates. Compiling a list of speakers and presenters for the biweekly seminar series is handled by the Vice-President, while the Secretary generally documents the activities of the chapter and writes the annual report. The duties of the Treasurer include managing and recording member dues as well as arranging for refreshments for meetings and events. The position of Webmaster is to manage the chapter's online presence and

update information so that the public and past members can stay informed, as well as act as support for any members to answer questions or give information.

B.2. Spring and Fall Induction Ceremonies

The SC Delta Tau leadership led the inductions within the traditions of Pi Tau Sigma. In total between the fall and spring ceremonies, twenty-four new members were welcomed. This is excellent for the future of the chapter. Invitation letters for the next pledge class will be sent out during the early weeks of the Fall and Spring Semesters with the necessary background information and congratulatory message.

Members inducted in the Fall 2017 ceremony

B.3. Annual Faculty/Staff Awards

At the close of the Spring 2018 semester the chapter members voted unanimously on the Senior Professor of the Year, Junior Professor of the Year, and Service Personnel of the Year. For the 2017-2018 year, the members were excited to nominate and present the award for Junior Professor to newcomer Dr. Doug Byrd who teaches senior design and undergraduate heat transfer. The Senior Professor award was unanimously voted to award Dr. Mike Sutton who is also the chapter faculty advisor. For her continued assistance with students, Miss Renee Jenkins was voted as Service Personnel of the Year.

C. Seminar Series

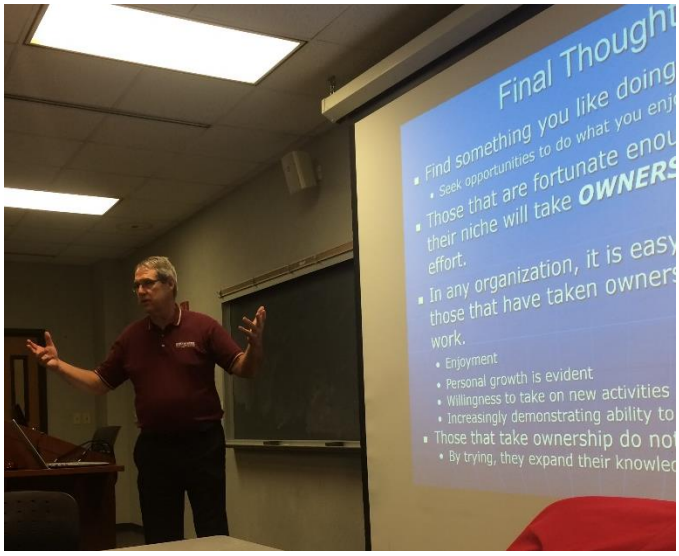
The seminars that SC Delta Tau provides its members is a long running tradition within the chapter. Guest speakers come from a variety of sources including past PTS members, mechanical engineers within the industry, and faculty here at USC. These events help educate and prepare the current members for after graduation and hopefully encourage connections with potential careers.

In the Fall 2017 semester, Mr. James Kilyk from Shaw Industries came to talk to members about the products and processes that Shaw provides as well as roles that engineers can play in their

development. This was an excellent opportunity for students to also hear about the internships locally that Shaw may offer.

As a new graduate student member of Pi Tau Sigma, Mr. Malik Tahiyat gave a lecture on his current research at USC and a tour of his lab. His advisor Dr. Tanvir Farouk was also a PTS seminar speaker last year when the faculty seminar series was in progress.

Mr. Tahiyat



Dr. Sutton during his seminar speech

Later in the Fall semester, Dr. Mike Sutton gave a seminar on the benefits of becoming well-rounded engineers as well as his own career path. Dr. Sutton has been the faculty advisor for PTS for a number of years and has often offered guidance to many members.

In the Spring 2018 semester, PTS alumni filled out the guest speakers list. Pictured on the next page is Mr. Joshua Hartgrove who found employment at Agilis Engineering after graduation. He spoke to members about the process and how his internships and co-op may have benefitted his final career decision.

Also a PTS member, Mr. David Chea was a guest speaker from Spirax Sarco. He discussed his role in their global leadership program which may be of interest to members who consider the rotational program path after graduation. Mr. Chea also was able to converse with members about the Fundamentals of Engineering (FE) exam which he underwent, and many students are interested in taking as their first step towards becoming Professional Engineers. Spirax Sarco was also very enthusiastic about taking on PTS members and posted their internships through the chapter once they were available.

To round out the PTS alumni speakers, Mr. Ian Adkins was able to come talk to the chapter. Ian is well known at USC for his time spent serving as the previous SC Delta Tau president. Now after

graduation, Mr. Adkins works at Correlated Solutions and travels to customer locations for equipment installation and training as well as providing support at the headquarters here in Columbia. In addition to informing members about his responsibilities and daily life as a working engineer, Ian also spoke about his time in PTS and how it may have shaped his career.

Mr. Josh Hartgrove from Agilis Engineering

Mr. Ian Adkins from Correlated Solutions

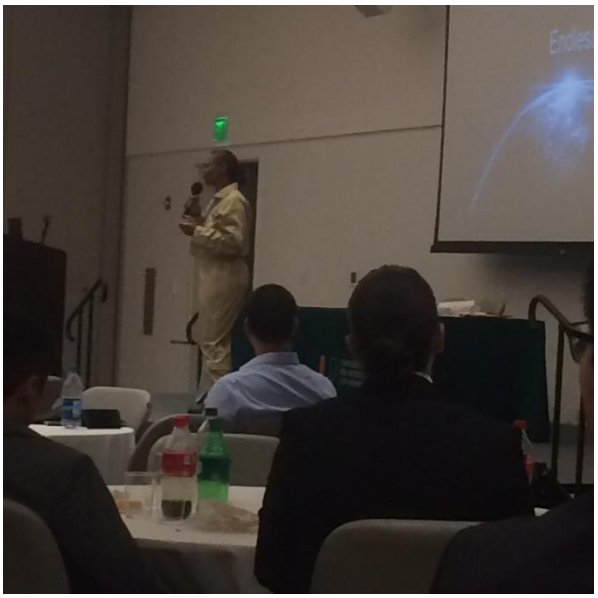
Most notably in the spring semester, the Dean of the USC School of Engineering and Computing paid the chapter a visit and generously spent time discussing with members. Dean Hossein Haj-Hariri outlined the exciting future plans that the engineering department will experience, which will be beneficial to the next generations of PTS members at the school. He also took extensive feedback from students on their experiences at USC and how the administration might be able to improve them.

Dean Hossein Haj-Hariri

D. Annual National Convention

This year's National Convention was held in sunny Florida at the University of Miami. The chapter was able to send a representative for this trip and it proved to be very beneficial for networking with other chapters, discussing their respective practices, and how they function and hope to improve. SC Delta Tau hopes to send a reasonable number of delegates to next years convention in Colorado to continue the good record of accomplishment of attending the National Convention. The panels, lab tours, and social events have always proven to be very informative but also enjoyable. Keynote speaker Dr. Yvonne Cagle, an astronaut and accomplished surgeon, was highly inspirational to the many students and future engineers gathered at the convention.

A tour of the beautiful campus



Dr. Yvonne Cagle

E. Service and Chapter Activities

SC Delta Tau emphasizes not only service to the community as part of the initiation proceedings but also as members and throughout one's life. In the Fall 2017 semester, members and pledges were able to participate in the USC Middle School Day. During this activity, member Matt Testa's hydraulic digger was brought out so a group of local middle school students could operate it and learn about principles of fluid mechanics. The volunteers helped demonstrate and aid students in the operation.

Matt Testa explaining the theory behind his digger arm

Middle School Day students, teachers, and PTS volunteers

Members also donated time to volunteer in the community. Pictured below is Cade Fisher who spent some effort in preserving Randolph Cemetary.

Sean Riester, shown below also helped care for animals at the Humane Society shelter.

New member Bryan Jehlen also extensively tutored a fellow mechanical engineering student in thermodynamics and differential equations. Other students chose activities such as Adopt a Highway, Engineers Without Borders, Inova Blood Donors Services, Pets Inc, and other local service organizations.

In the way of chapter activities apart from volunteer work, this school year the chapter organized the annual trivia night. The three winning teams are awarded cash prizes for their knowledge in STEM and mechanical engineering-based trivia questions.

An exciting opportunity for the chapter was the chance to exclusively tour FN America which is located here in Columbia. A key supplier of small arms to the defense industry, FNA has not only their manufacturing but also R&D under the same roof which is an excellent local career for students after graduation. Engineers from the Pistol Design Team, Rifle Design Team, and Manufacturing gave the members a thourough tour of the facility and explained the products that they design and make. A representative from the human resources department also spoke to members about internship and job opportunities that might be of interest. From this tour and networking opportunity, at least one member so far has procured a summer internship.

PTS members at FNA for the exclusive tour

F. Preliminary listing of activities for 2018-2019

In the upcoming school year, SC Delta Tau hopes to send students to the National Convention to further nationwide cooperation with other chapters. It is also on the agenda to increase the amount of member social events within the chapter and optimize the quantity of members through diligent campaigning and outreach to the freshmen and sophomore classes. SC Delta Tau also wishes to continue their service activities to the University and members, such as the E-Week and Middle School Day events as well as the biweekly seminars given to members.