PI TAU SIGMA ANNUAL CHAPTER REPORT, 2016-2017

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 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 this 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

As the 2016-2017 school year began with the fall semester, the returning leadership from the previous year's elections took on their roles and responsibilities. The elected positions and individuals included the following:

- Ilana Lu, *President*
- Chau Tran, *Vice-President*
- Matthew Testa, *Secretary*
- Derrick Mak, *Treasurer*
- Connor Wardrop, *Webmaster*

At the close of the spring semester, elections to determine leadership for the following school year of 2016-2017 were held. Those elected to positions include:

- Ilana Lu, *President*
- Andrew Meisner, *Vice-President*
- Abigail Simmons, *Secretary*
- Caleb Summe, *Treasurer*
- Derrick Mak, *Social Chair*

Traditionally 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 Social Chair 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 President, Vice-President, and Secretary led the inductions within the traditions of Pi Tau Sigma. In total between the fall and spring ceremonies, sixteen new members were welcomed and have much potential to strengthen the chapter. Shown below is the Spring induction class. 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.

B.3. Annual Faculty/Staff Awards

Awards were chosen by members towards the ending of the 2017 Spring semester, and as the tradition of this chapter continues, there are three major categories for faculty awards: Senior Professor of the Year, Outstanding Young Educator, and Outstanding Service Provider. For the second year in a row, the voting was administered electronically with excellent participation and consensus. It was determined that the Outstanding Service Provider was awarded to Lalitha Ravi in the Mechanical Engineering department office who maintains impeccable service and clerical skills to better help the students with not only their senior design projects, but also with many of the students who work at the University. The Outstanding Young Educator award was given to Dr.

Lingyu Yu, and the Senior Professor of the year was awarded to Dr. Walter Peters who has held a long and very distinguished career here at the University of South Carolina and maintains a great rapport with the students.

C. Seminar Series

As with many of the previous years, speakers came to talk during the chapter meetings and also answer questions from members. The importance of these events is to educate and prepare members for industry after graduation and help them connect with local companies. This unique seminar series that the Chapter provides its members was continued robustly again this year, with positive reception and attendance. Refreshments are served to members as well as the guest speakers. A responsibility of the Vice President of the society is to organize the list of speakers throughout the semester, many of which were graduates of the University of South Carolina and Pi Tau Sigma. With the addition of graduate members of Pi Tau Sigma, it is hoped that as part of their service to the community and chapter that they might also partake in the seminar series, and give discussions of their current research and tours of the lab facilities. Some of this year's speakers and the summaries of their discussions are listed below.

Charlie Davenport, *FN America*: Mr. Davenport shared with the chapter what being a design engineer for a major firearm manufacturing facility involves. FN is also one of the most prominent employers for engineering and machining in Columbia, so their presence at USC is encouraging to our students.

Lexie Murray, *Freightliner Custom Chassis*: A recent graduate of UNC Charlotte, Ms. Murray discussed her years of college through the good and the bad, and how her aspirations to work with performance motorsports led her to a career in chassis design. She also encouraged attendees to entertain their hobbies even as engineers, something that Ms. Murray does by building and racing her own cars within the Southeast Autocross division.

Chris Small and Patricia Penaloza, *Allied Air Enterprises*: A dual team from Allied Air Enterprises, Ms. Penaloza and Mr. Small discussed the challenges and benefits of working in the HVAC industry and gave members a perspective on what the world beyond school would be like to experience as an engineer. This was also a great networking opportunity for students who were interested in co-ops or internships with this company.

Dr. McNeill during his seminar

Dr. Stephen McNeill, *Correlated Solutions*: Many members are interested in the business aspect of engineering, and Dr. McNeill offered a great lecture about the trials of starting up one's own business with cautionary anecdotes for guidance.

Dr. Tanvir Farouk, *University of South Carolina*: Leaving the attendees something to think about, Dr. Farouk gave a talk about serendipity within science, or, fortuitous outcomes that happen as a stroke of fate. Not only within his own research, but with many of the famous discoveries within science and engineering Dr. Farouk pointed out the chance circumstances and rare situations that led to some of the greatest breakthroughs.

Dr. Ramy Harik, *University of South Carolina*: Dr. Harik was voted as last year's Outstanding Junior Educator and was wholeheartedly welcomed by the Chapter. He spoke of not only his field of research, but also the expected impact of upcoming technologies and how they will affect engineering work.

D. Annual National Convention

The annual Pi Tau Sigma National Convention was held on February 24-26, 2017. Located at Drexel University in Philadelphia, Pennsylvania and hosted by the Drexel Xi chapter, this was a great opportunity for the President of South Carolina Delta Tau to attend and connect with members from other chapters. The event was not only informative but also enjoyable and a great experience overall. What was most remarkable is the prominent presence from many of the other chapters such as Purdue Beta who typically send a large delegation of their members to attend. With the upcoming 2018 National Convention in Miami, the South Carolina Delta Tau Chapter intends to send as many members as possible to take part in the event and make connections nationwide.

E. Service Activities

Now a tradition and staple of the Engineering Week (E-Week) activities, the chapter once again had a large group of members and initiates assist with the setup and demonstration of water-propelled bottle rockets. Led by USC Lab Engineer David Westbury, the rocket demonstration is a long-standing favorite of the event. Always with great turnout of attendance, E-Week provides children and adults alike with education about the various areas of engineering and science. Many organizations and departments have tactile activities as well as presentations, and the chapter was fortunate to have strong volunteer presence for this event and those who participated had a great time. Contributing again this year, member Matthew Testa designed and fabricated a large hydraulic excavator for the attendees to operate.

A large group of members also helped host the new Dollar Donuts Fundraiser which provided the students in the College of Engineering and Computing with Krispy Kreme donuts at a greatly reduced price in order to raise money for seniors' cords and stoles. Also serving coffee and fruit, this one day event was very successful and proved that further fundraisers for the Chapter might be useful and similarly beneficial with member support.

F. Preliminary listing of activities for 2016-2017

With the upcoming school year of 2017-2018, the South Carolina Delta Tau Chapter would like to continue our strong presence here at the University of South Carolina and recruit the next class of members to join the society—both graduate and undergraduate. It would also be beneficial to not only continue to have the traditional chapter activities such as Trivia Night, E-Week, or the Seminar Series, but also to broaden the scope of what the chapter does so that members have extra time to socialize and connect with one another. Finally, South Carolina Delta Tau's presence at the National Convention in 2018 will be of high importance to not only meet and learn from other chapters, but also show what the University of South Carolina can offer. South Carolina Delta Tau would also like to congratulate the graduating class of 2017 (shown on the next page) and wish them well in future endeavors.