
1. Elected Officers:

President: Daniel Grunden, dtgrunden@gmail.com
Vice-President: Felipe Zambrano, zambrafe@tamu.edu
Secretary: Felipe Zambrano, zambrafe@tamu.edu
Treasurer: Haley Marks, hmarks@neo.tamu.edu
Outreach Chair: Madeleine Durkee, madeleine.simonne@gmail.com
Webmaster: Cory Olsovsky, colsovsky89@gmail.com
Advisor: Alvin Yeh, avyeh@tamu.edu

2. Current Members of Student Chapter:

Member Roster: Babatunde (Tunde) Agboola, Folami Alamudun, Joel Bixler, Madeleine Durkee, Rodrigo Cuenca Martinez, Elias Gonzalez, Daniel Grunden, Taylor Hinsdale, Andrea Locke, Haley Marks, Scott Mattison, Zhaokai Meng, Albert Mencach, Dawson Nodurft, Fatemeh Nooshabadi, Cory Olsovsky, Casey Pirnstill, Jose Rico, Sebina Shrestha, Maria Troyanova-Wood, Sergio Waqued, Felipe Zambrano
Alumni Roster: Tony Akl, Shuna Cheng, Brian Cummins, Holly Gibbs, Joey Jabbour, M. Ibrahim Khatkhatay, Sandra Bustamante Lopez, Paritosh Pande

3. Details of Chapter Activities:

The Texas A&M student SPIE chapter focuses its efforts in optics demos and our weekly journal club. All funding received from SPIE goes to supporting these two programs. We use part of the money from our student activity grant to replenish our supplies for the optics demos we preform, as well as developing new demos. This past calendar year, we presented optics demos at the following events:

❖ NSF BioPhysics Saturday outreach to middle and high school age girls (audience of 30 high school students per session for 5 sessions)
A faculty member at TAMU, Dr. Andreea Trache, has an NSF-funded grant to develop an outreach program for middle and high school aged girls that included five Saturday sessions on campus. The attendees first listened to a lecture by a professor from Texas A&M and then rotated through five 15 minute hands on sessions. Dr. Trache invited our chapter to run one sessions each Saturday. All of the demos that our chapter has prepared were presented at one of the Saturday sessions. Many students attended multiple sessions, so the total number of students reached is approximately 50-60.

❖ Aggieland Saturday (audience of 400 high school students and parents)
Texas A&M University has an annual recruitment day called Aggieland Saturday and the TAMU student chapter of SPIE was requested to provide demonstrations to represent the optics and instrumentation track to prospective undergraduate students and their families. We presented our more visually stunning demonstrations, including fish tank optics with a graded index at the bottom, optical activity, birefringence, ray optics of corrective lenses for near and far, and the optical transmission of audio signal to sixteen groups of approximately twenty-five people. These demos tried to high light the career opportunities available to those who pursue a degree in biomedical engineering.

❖ Elementary School Science Night Demos
The Texas A&M University student chapter of SPIE has given ray optics and diffraction demos for multiple elementary school science nights. At each event, we are set up at a booth where children and parents are welcome to come up and view hydrogen and argon gas lamps with diffraction glasses to gain a
better understanding of light diffraction. We also demonstrate how glasses and other lenses work with plastic magnetic lenses that focus parallel rays on different parts of a picture of an eye or a picture of a camera. These demonstrations are meant to inspire interest in young children about how light affects everyday life and encourage them to explore these interests both in and out of the classroom.

**Weekly Journal Club**

Finally, we continue to host a departmental optics Journal Club. Journal Club provides graduate students with the opportunity to select and present on a scientific article related to their research to a group of peers in an informal setting. In effort to increase the attendance and quality of the presentations, we use portions of the student activity grant funding to provide snacks and refreshments at each meeting, as well as providing a dinner for all speakers once a year. We encourage biomedical engineering faculty to attend these presentations and engage in the discussion about the paper presented. These weekly meetings not only provide practice at preparing and delivering an oral presentation, they also provide students with exposure to current research in other areas of optics outside their own focus.

4. **Details of Planned Future Activities:**

We are currently organizing a large number of demonstration booths for the Texas A&M Physics Festival in late March. These demonstrations include the experiments listed above, as well as laser mazes, laser graffiti, and polarization demos. The festival brings thousands of elementary through high school age students from across the state, and even some from other parts of the country. We are using these demonstrations not only to educate children and adults in the optical sciences, but we are also promoting the 2015 International Year of Light initiative.

In addition to the outreach events we have discussed, we also plan on working closely with other graduate student organizations in the hard sciences to bring fun and educational optics demonstrations to other parts of the community, as well as maintain a working relationship with many of the high schools and elementary schools in the area to discuss optics, biomedical application of optics, and career paths involving optical sciences and other STEM fields.

5. **Financial Information**

Our beginning balance prior to receiving last year’s chapter activity grant was $452.47. We received $1100 from the 2014 SPIE Chapter Activity Grant. The SPIE Chapter Activity Grant was used to provided refreshments and pizza for our weekly Optics Journal Club, and to purchase supplies for building new optics demonstrations for outreach events and the upcoming Physics Festival. Our current balance is $1,046.21.