

Vanderbilt University SPIE Student Chapter Annual Report
August 2014

1) Chapter Officers:

	Name	SPIE ID #	Email
President:	Christine O'Brien	3298669	christine.m.obrien@vanderbilt.edu
Vice President:	Amy Shah	3390102	a.shah@vanderbilt.edu
Treasurer:	Melanie McWade	3570292	melanie.mcwade@vanderbilt.edu
Secretary:	Joe Sharick	3569304	joseph.t.sharick@vanderbilt.edu

2) List of Current Student Chapter Members:

Student Members
Asman, Andrew
Ayala, Oscar
Conley, Rebekah
Dockery, Mary
Ford, Jeremy
Gil, Daniel
Hu, Shuren
Lapierre-Landry, Maryse
Liu, Yuan
Makowski, Alex
McWade, Melanie
Nguyen, John
O'Brien, Christine
Pence, Isaac
Poole, Kristin
Ricks, Zane
Shah, Amy
Sharick, Joe
Tucker-Schwartz, Jason
Walsh, Alex
Wu, Yifei
Xu, Zhoubing
Zhao, Yiliang

Alumni Members
Cayce, Jonathan
Keller, Matthew
Welch, Edward
Patil, Chetan
Santoro, David

3) Details of Chapter activities since last report:

Our membership has increased to 23 student members and we have had a very busy year. We initiated the Vanderbilt University Biomedical Photonics (VUBP) Seminar Series and hosted eight incredible external speakers and four internal speakers from Vanderbilt University:

External Speakers:

Bruce Tromberg, UC Irvine
Alexander Oraevsky, TomoWave Labs
Wolfgang Becker, Becker & Hickl GmbH
Justin Baba, Oak Ridge National Labs
Changhuei Yang, Cal Tech
Aydogan Ozcan, UCLA
Ricky Wang, University of Washington
Nimmi Ramanujam, Duke University

Internal speakers:

Jeff Davidson, Vanderbilt University
Wellington Pham, Vanderbilt University
Anne Kenworthy, Vanderbilt University
Jim Wynn, Vanderbilt University

In addition to the seminars themselves, we organized coffee hours with our external speakers which were reserved for graduate students to talk with the speakers and ask them questions about their research and careers.

We have continued holding weekly meetings with student members and professors to discuss research and chapter activities. Our group has continued to mentor high school-level and undergraduate-level students on independent research projects and many of these partnerships have resulted in authorship on posters and journal publications. Each week we organize a student-run journal club aimed at discussing new research topics outside of our areas of expertise. Outside of the workplace we have organized monthly “fluids labs” where our students can socialize and network with optics and photonics students.

Our group has been working with the Vanderbilt Biomedical Engineering Graduate Student Association to perform outreach activities with high school students from a Metro-Nashville Public High School. These students are traditionally under-represented in the fields of optics and photonics, and our main goals have included exposing these students to light-based technologies and careers in the hopes that they will pursue high education in light-related fields. We have also done outreach activities with a variety of student groups that tour Vanderbilt University such as the Governor’s School, a group of highly talented high school students throughout the state of Tennessee that engage in a summer program that exposes them to cutting edge research and facilities.

The chapter grant funding received this past year from SPIE was spent on putting on the seminar series. We used the funds to pay for the speakers to travel to Vanderbilt and stay the night in a hotel. The funds were also used towards providing lunch during the talks.

4) Details of planned activities for the future:

We are planning to continue our seminar series and have already booked the SPIE President, Dr. Philip Stahl, and Dr. Paul Campagnola from the University of Wisconsin to present. We plan to continue having weekly research meetings, “fluid labs”, and our journal clubs. We are working on expanding our outreach activities and developing new sessions with an emphasis on hands-on

learning of complex methods such as Raman spectroscopy and optical coherence tomography for a variety of ages and levels of expertise. Finally, our members are writing blogs for the International Year of Light discussing applications of light on the medical field.

5) Financial Information

- a. Beginning balance -\$149.11
- b. Funds raised and expended (indicate amounts and source/destination)
 - Funds raised-
 - \$900- SPIE student chapter funds
 - \$750- Princeton Instruments
 - \$500-Vanderbilt Graduate Student Council co-sponsor
 - Total= \$2150
 - Funds Expended-
 - \$205.89- Wynn Seminar
 - \$627.94- Yang Seminar
 - \$150.63- Ozcan Seminar
 - \$373.48- Wang Seminar
 - \$65.47- SPIE gathering
 - Total= \$1423.41
- c. Details of SPIE funding received- We received \$900 in SPIE student chapter funds
- d. Other sources (please specify)- Princeton Instruments and the Vanderbilt Graduate Student Council
- e. Ending balance= \$875.70