

Vanderbilt University SPIE Student Chapter Annual Report: 2017

1. Chapter officers

	Name	SPIE Membership Number	Email
President	Wilson Adams	3729460	Wilson.adams@vanderbilt.edu
Vice-President	John Jenkins	3700246	J.logan.jenkins@vanderbilt.edu
Treasurer	Oscar Ayala	3246782	oscar.d.ayala@vanderbilt.edu
Secretary	Jennifer Bateman	4006981	Jennifer.n.bateman@vanderbilt.edu

2. List of current student chapter members

Chapter Members

Wilson Adams

Oscar Ayala

Jen Bateman

Andrey Baydin

Ahmet Cakir

Srijata Chakravorti

Mohamed El-Haddad

Jeremy Ford

Mohit Ganguly

Jon Heiselman

Yuankai Huo

John Logan Jenkins

Maryse Lapierre-Landry

Ma Luo

Laura Masson

Kevin Miller

Vishwesh Nath

Christine O'Brien

Joe Sharick

Jianing Wang

Sharon Weiss

Xiaochen Yang

Yiyuan Zhao

Alumni Members

Mathew Keller

Alexander Makowski

Chetan Patil

Kristin Poole

David Santoro

Alex Walsh

Brain Welch

3. Details of chapter activities since last report

We had another busy year full of professional development and outreach events. We continued our optics and photonics seminar series and had a great set of speakers (listed below), both external and internal to Vanderbilt. They highlighted their exciting research during formal presentations open to all researchers at Vanderbilt, and also discussed the problems they face in their research. As a part of hosting visiting speakers, we continued with our informal SPIE student chapter coffee hour sessions where we had an opportunity to ask the speakers questions about their careers, the reasoning behind each speaker's career choices, and sought insights on potential career paths that current graduate students and post-docs in optics and photonics can consider.

Here is a list of the speakers from our Vanderbilt University Biophotonics Seminar Series

Fall 2016

Name	Affiliation	Attendees
Audrey Bowden	Stanford University	43
Kristin Myers	Columbia University	73
Eric Skaar	Vanderbilt University	36
Brian Wong	Beckman Laser Institute	17
Curtiss Marcott	Light Light Solutions	38
Paul Stoddart	Swinburne University	44

Joshua Caldwell	US Naval Research Lab	53
Qi Zhang	Vanderbilt University	34
J. Newton	Vanderbilt University	10
Daniel Palanker	Stanford University	38

Spring 2017

Name	Affiliation	Attendees
Jeffrey Schall	Vanderbilt University	31
William Roach	AFOSR	41
Doug Morgan	Vanderbilt University	NA
Laura Waller	UC Berkeley	43
Lauren Buchanan	Vanderbilt University	54

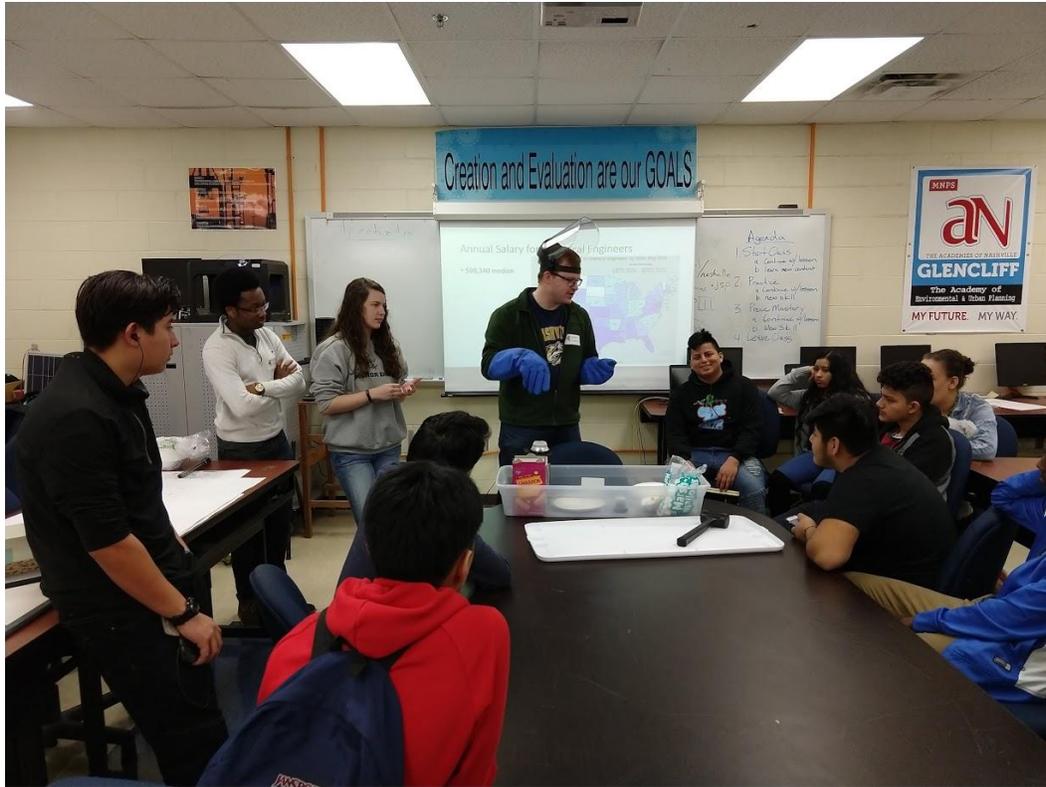
Apart from the seminar series and the corresponding coffee hour sessions, we continued with our tradition of holding weekly meetings with student members and professors to discuss research and chapter activities. Our group is very active in mentoring high school level and undergraduate students to perform independent research. We have continued to hold weekly student journal clubs where we discuss the latest research topics in the field of optics and photonics, not necessarily within the scope of research. This gives us an opportunity to discover other applications of light; inside or outside of biophotonics. Apart from research, we organize the biweekly "fluids labs" where the students socialize and share their research ideas in a relaxed atmosphere.

We have continued to organize another 'Optics Day' at the Adventure Science Center in Nashville. The day-long event consisted of booths showing how various light phenomenon (scattering, absorption, optical fibers, prisms, optical illusions, etc.) are used in biomedical applications. The event was attended by more than 500 people of all ages. In addition, our plans also include continuing the monthly photonics education outreach events at a local high school (Glencrif High School, Nashville). Student groups that are under-represented in the field of optics are exposed to various outreach activities.

Members of SPIE student chapter at the Adventure Science Center for the Optics Day 2017



Glencrif High School Young Engineers



We initiated a new professional development opportunity we have called "departing coffee hour". In this initiative, recently graduated students are invited to the campus, and are encouraged to talk to about their graduate school experience, their job search techniques, and general do and don'ts of grad school. We believe that an honest conversation in a relaxed setting will help both early career and mid-career graduate students alike. We have had two such sessions so far and they both have been immensely successful and appreciated. We plan to hold more such sessions as more students graduate and slowly plan to open it up to students outside the group to benefit a larger community within Vanderbilt.

4. Details of planned activities for the future

We plan to continue our excellent seminar series. A tentative list of expected series speakers for the fall of 2017 is as follows:

Speaker	Affiliation
Anthony Daniels	Vanderbilt University
Jeff Brooker	Thorlabs
Sunney Xie	Harvard University
Peter So	MIT
Joseph Izatt, Cynthia Toth	Duke University
Bruce Tromberg	U.C. Irvine

In addition to the seminar series, we will continue with the journal clubs, "fluids labs", "departing coffee hours" and the weekly meetings. We plan to hold another "Optics Day" event at the adventure science center in March 2018, and continue with the outreach events at the local high schools.

One of the initiative that we want to undertake this year is an inclusion of more students in the student chapter. This includes students who are not necessarily members of the Vanderbilt Biophotonics Center but are nonetheless optics and photonics researchers at Vanderbilt. This will help us in enhancing the footprint of the chapter in the university and contribute to the intellectual diversity of the chapter, thereby helping us organize more outreach events and other innovative events. We plan to increase our reach into the undergraduate community in the campus and encourage them to participate in the chapter's activities and get them interested in the chapter's activities. For this purpose, we plan to appoint an undergraduate liaison to coordinate our outreach activities and plan to participate in the various organizational fairs held in the fall semester to attract the new undergraduates in the campus.

5. Financial Information

a. Beginning Balance - \$1,185.33

b. Funds raised and expended (indicate amounts and source/destination)

Funds Raised:

\$2,000 – 2016 SPIE Education Outreach Grant

\$700 – 2016 SPIE Activity Grant

\$300.25 – SPIE Visiting Lecturer Grant

\$1,000 – Vanderbilt Student Activity Fee Sponsorship

Total: \$4,000.25

Funds Expended:

\$215.97 – Bowden Seminar

\$285.13 – Wong Seminar

\$279.00 – Stoddart Seminar

\$84.00 – Zhang Seminar

\$199.89 – Palanker Seminar

\$192.96 – Caldwell Seminar

\$194.66 – Newton Seminar

\$275.44 – Schall Seminar

\$221.94 – Morgan Seminar

\$16.90 – Wilmlink Seminar

\$1,825.61 – SPIE Student Chapter Outreach (Supplies)

Total: \$3,906.70

c. Details of SPIE funding received – We received \$2,000 for a 2016 SPIE Education Outreach Grant for our Chapter’s community outreach activities and \$700 for the SPIE Activity Grant. \$300.25 is from the Visiting Lecturer Grant for Dr. Palanker.

d. Other sources (please specify) – Vanderbilt Student Activity Fee Sponsorship for student organizations on campus. We are actively looking for industrial partners to sponsor our educational and sponsorship events.

e. Ending balance: \$1,278.88