

**Vanderbilt University SPIE Student Chapter Annual Report (1048963)**  
 September 2013

1) Chapter Officers:

	Name	SPIE ID #	Email
President:	Isaac Pence	3299143	isaac.pence@vanderbilt.edu
Vice-President	Christine O'Brien	3298669	cobrie5@gmail.com
Treasurer	Jason Tucker-Schwartz	3384875	jason.tuckerschwartz@vanderbilt.edu
Secretary	Oscar Ayala	3246782	oscar.d.ayala@Vanderbilt.Edu

2) List of Current Student Chapter Members:

<b>Student Members</b>	
Ayala	Oscar
Conley	Rebekah
Delisi	Mike
Dockery	Mary
Gaur	Girija
Jarrett	Christopher
Makowski	Alex
McCormack	Devin
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
<b>Alumni Members</b>	
Cayce	Jonathan
Duke	Austin
Keller	Matthew
Welch	Edward
Patil	Chetan
Vargis	Elizabeth
Santoro	David

### 3) Details of Chapter activities since last report:

Since beginning to rebuild the VU Chapter, our group has been quite active. The membership of the chapter has increased over the past year to include several students from new optics and imaging laboratories. Over the past year, the chapter has continued to hold weekly meetings to discuss member research with fellow students and photonics mentors and expose the students to work beyond the scope of their own research. The group has participated in mentoring several high-school and undergraduate students performing photonics research on the VU campus, helping to familiarize these young students with research methods, the principles of biophotonics, and develop skills regarding analysis and publication. The chapter has also participated, in collaboration with the Biomedical Engineering Graduate Student Association, to mentor under-privileged high school students in Nashville through regularly scheduled visits to familiarize the students with principles of engineering and expose them new avenues and career paths.

The chapter also organized a Biomedical Photonics Mini-Symposium (July 17-19<sup>th</sup>) at which two visiting speakers (Dr. Bruce Tromberg, and Dr. Alexander Oraevsky) gave keynote talks, followed by presentations from active Photonics faculty teams at VU covering ongoing research. Along with a student poster session and lunch, this symposium was aimed to bring together the members of the VU working with photonics to share resources and ideas to establish an active, collaborative community.

Continuing with the momentum for intellectual exchange promoted by the mini-symposium in July, the VU SPIE student chapter has organized the Vanderbilt University Biomedical Photonics (VUBP) seminar series for the fall and spring semesters at VU. The expanding audience includes over 40 PIs and labs from physics, engineering, and medicine that develop, study, or use optical or imaging techniques. Thus far we have scheduled visits from 2 external speakers for 2013 (Dr. Wolfgang Becker- Becker & Hickl, GmbH & Dr. Justin Baba- ORNL) and have scheduled 3 visiting speakers for the spring: Dr. Aydogan Ozcan (UCLA), Dr. Ricky Wang (Washington), & Dr. Changhui Yang (CalTech), for whom we hope to use the Visiting Lecture fund. These speakers along with the VU community speakers will further establish this VUBP seminar for upcoming years and we hope to continue to entice leaders in the photonics fields to come and speak.

The chapter has also held social gatherings every other week over the past summer to unwind at the week's end and meet with other researchers from around the Vanderbilt University campus at a regularly scheduled "fluids lab."

The chapter did hold elections and appointed 4 members to the previously listed positions. The officers have been working together with the faculty advisor to organize the chapter, participants, and plan for upcoming speaker events, as discussed below. Several chapter members have also participated in grant and publication writing courses, programming courses, and attended research symposia and guest lecture series to stay current with cutting-edge research in the biomedical fields.

One of our officers, Jason Tucker-Schwartz, also received a 2013 Photonics West Newport Research Excellence Travel Award to present his work on Photothermal Optical Coherence Tomography.

Finally, the VP of the VU SPIE chapter, Christine O'Brien, attended the Optics+Photonics 2013 conference and Student Chapter Leadership Workshop. While at the workshop Christine also participated in "Lunch with Lasers" at the 2013 SPIE Optics Outreach Games where her demonstration took 3<sup>rd</sup> place. The optics kit that she was awarded is intended to be included in the optics and engineering outreach program in the upcoming months.

### 4) Details of planned activities for the future:

As previously mentioned, the VU student chapter has been primarily composed of members from a few labs at VU. One goal for this upcoming year is to expand the student chapter to include members from several other optics, photonics, laser, and imaging research labs from around campus. By expanding our student chapter to be more comprehensive, we hope to encourage cooperation between researchers, improved networking, and sharing of resources.

Another plan for the upcoming year is to continue hosting the bi-weekly VUBP seminar series. To achieve this, our chapter is currently in the process of obtaining corporate sponsorships so that we have the resources necessary to bring in multiple speakers each semester and expose our students to recent research advances and promote networking and professional development. The other meetings will allow researchers

here at Vanderbilt University to share findings, including students, faculty, and medical personnel. The chapter plans to use the visiting lecturer funds to bring in one of the three previously mentioned speakers to kick off the seminar series and is currently organizing the events for the upcoming months. The chapter will also utilize the chapter activity grant obtain supplies for our proposed outreach program and to support our members attending SPIE conferences.

5) Financial Information

The chapter has to this point not used any SPIE chapter funds. External commitments for corporate sponsorship have been promised, but are yet to be finalized. The VU SPIE student chapter is also seeking funding from Vanderbilt University as an on campus student organization in addition to the application for the SPIE Student Chapter Activity Grant that we have submitted.

Further questions can be directed to:

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