

Rose-Hulman Institute of Technology  
SPIE Student Chapter  
Annual Report 2018-2019



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## I. Membership

Position	Member Name	Contact	Member Number
President	Audrey C. Brand	<a href="mailto:brandac@rose-hulman.edu">brandac@rose-hulman.edu</a>	<b>3723037</b>
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	Michael Butler		
	Zac Chen		
	James Dilts		
	Tayler Evans		
	Gavin La Rue		
	Margaret Luffman		
	Zachary Masner		
	Matt Schneider		
	Rebecca Su		
	MacKenzie Lewis		
	Jacob Murray		
	Simon Tsaoussis		
	Michael Wojcik		
	Sydney Wilson		
	Rebecca Swertferger		
Advisor			
	Dr. Sergio Granieri		

## **II. Official Meetings**

Rose-Hulman operates on a ten week quarter system, with three terms during the school year and one summer term. During the three school terms, the chapter met at least once a month, with other optional events in-between. Officer meetings were held at least once a month as well to set the goals of the chapter. This schedule provided the flexibility for each member to participate in meetings without taking time away from their studies. Members were held accountable to attend at least two meetings per quarter.

This year, our focus was on outreach to our community and to our student body as opposed to a project based series. Our lab demo series from professors engaged students on campus and gave them a chance to ask questions. We did this in place of inviting a speaker this year due to scheduling conflicts.

Meeting times were used for completing projects and answering questions regarding academics, internships, and jobs. Resume critiques and interview readiness meetings were scheduled around Rose-Hulman's three career fairs. Snacks were provided at several meetings to facilitate a friendly, casual atmosphere between members.

The ultimate goal of this chapter is to spread awareness of optics to others while providing a support platform for students who are already optics majors or planning to join the field.

### **New Member Recruits**

Members are recruited via the Activities fair - which is organized by Rose-Hulman as an opportunity for clubs to advertise to new students - and avocation within the Physics and Optical Engineering Department. Completed projects are also displayed during the Activities Fair.

### III. Completed Activities

#### **Rose Expo**

The Rose EXPO is held to provide an opportunity for students involved in professional clubs and organizations to personally connect with hiring personnel prior to the fall Career Fair. This opportunity also allowed companies to see the involvement of students outside of academics, along with the student's application of academic knowledge to a professional club setting. Several officers represented the SPIE chapter at this event to inform many company representatives of Optical Engineering at Rose-Hulman.

#### **Community Outreach – Garden Volunteering at Sugarcreek Elementary**

SPIE members represented SPIE and the PHOE department by volunteering with the local Sugarcreek Elementary to build a garden. SPIE members got their hands dirty planting flowers and talking about natural light!



#### **Lab Demo Series – Student Body Outreach**

SPIE hosted a Lab Demo series to get more Rose-Hulman students curious about optics and photonics. Professors from the Physics and optical engineering department would give students a tour of their labs and then an interactive demo. These events proved engaging because the professors were able to share what makes them passionate about optics. Events ranged from acoustics with Dr. Maloney, to lasers with Department Head, Dr. Duree.



### **LED Throwies**

This project was the first project completed as a club. LED Throwies simply consist of a battery, LED, and magnet taped together; the result is a magnetic, lit LED. The purpose of this project was to teach basic electric circuit and optical theory to the underclassmen, as knowledge in both are crucial for optics.



### **International Day of Light Activities**

Rose-Hulman is excited to receive a SPIE micro-grant for IDL. Our theme this year is “Light Up Your World” to focus on lighting and the environment while doing community and campus outreach. We have been prepping for our giant pinhole camera by building smaller replicas out of cardboard. This gives the members a chance to be hands on in meetings, pitch ideas, and use engineering principles. We will be displaying our giant pinhole camera on the quad, running our 2nd annual photo contest, and chalking up the quad with optics figures and facts!

## **IV. Future Activities**

With two more months remaining in this school year, the SPIE chapter is planning multiple activities! We have a movie night series planned where members do homework while watching a physics-related movie.

The chapter has also been in touch with the local Terre Haute Children's Museum for a garden optics outreach event for International Day of Light. We will be exploring the world of natural light, rainbows, and color! The chapter will also inform the students about experiences in the STEM field and answer any questions they have.

Furthermore, we are looking forward to participating in the Blue Key event at the end of April with our displays - including the waterfall waveguide and demos from the previous years - in order to spread awareness of optics to students. This year, the chapter will provide simple hands on projects such as LED throwies and holograms for the students.

Finally, the chapter will participate in the International Day of Light (IDL) in May. We are grateful to be selected to receive an IDL grant for \$500. This event will be a joint effort with the OSA chapter at Rose Hulman. Currently, activities such as operating a giant pin-hole camera and a photography contest spread awareness of SPIE and optics on campus.

## V. Financial Report

Chapter money was used primarily on meetings (projects and snacks). The remaining money in the budget will be used for outreach and projects for the remainder of the year.

<b>Date</b>	<b>Description</b>	<b>Debit (\$)</b>	<b>Credit (\$)</b>	<b>Remaining Balance (\$)</b>
9/1/2018	Carried over from last year		2041.07	2041.07
10/18/2018	Pizza for Meeting	44.00		1997.07
1/11/2019	Parts for LED Throwies	60.12		1936.95
1/11/2019	Pizza for meetings	39.81		1897.14
2/7/2019	IDL Grant		500.00	2397.14
3/28/2019	Pizza for Meeting	44.26		2352.88
Pending	Snacks for movie night	10.00		2342.88
Pending	IDL temporary tattoos	65.00		2277.88