2017 – 2018 Annual Report

Elected officers for September 2017 – August 2018

President
Steffen Wittek
swittek@knights.ucf.edu
SPIE ID: 3467460

Vice President
Stefan Gausmann
stefan.gausmann@knights.ucf.edu
SPIE ID: 4005118

Treasurer
Nicholas Cox
Nickcox@knights.ucf.edu
SPIE ID: 4079158

Webmaster
Taiki Kawamori
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SPIE ID: 4083342

Secretary
Sanaz Faryadras
s.faryadras@knights.ucf.edu
SPIE ID: 3651892
Student Chapter Members (50)

Ali Abdulfattah
Yousef Alahmadi
Mahed Batarseh
Sepehr Benis
Ricardo Bustos Ramirez
Israel Castillo
Haiwei Chen
Justin Cook
Nicholas Cox
Jean Carlo Díaz
Sanaz Faryadras
Daniel Franklin
Nicolette Fudala
Kevin Gaj
Stefan Gausmann
Roman Grigorev
Evan Hale
Matthew Kalinowski
Taiki Kawamori
Ali Kazemi Jahromi
Christopher Kelley
Nicholas Kosan
Jitesh Kumar
Yun-Han Lee
Yuzhou Liu
Cesar Lopez Zelaya
Latifah Maasarani
Saad Mehmood
Nafiseh Mohammadian
Robert Nicholas
Patrick Roumayah
Juan He
Jialei Tang
Salimeh Tofighi
Charles Volz
Steffen Wittek
Justin Woodruff
Yuanyang Zhang
Zheyuan Zhu
Nicholas Zollo
Robert Short
Alex Sincare
Austin Singh
Matthew Suttinger
Thamer Tabbakh
Mohammad Jobayer Hossain
Jeffrey Jennings
Guanjun Tan

Alumni Members (36)

Brian Anderson
Adela Apostol
Casey Boutwell
Radu Bunea
Jiyeon Choi
Mark Conlon
Colin Constant
Kristopher Davis
Abdullah Demir
Mohammad Umar Piracha
Mark Ramme
Raymond Rumpf
Alessandro Salandrino
Leo Siiman
John Szilagyi
Andreas Vaupel
David Wayne
Sihui He
Apurva Jain
Clémence Jolivet
Hasan Kondakci
Yi-Hsin Lin
Catheryn
Logan
Christopher Middlebrook
Charles
Middleton
Brian
Monacelli
Alexander Dillard
Derrek Drachenberg
Jeremy Ellis
Matthew Weed
Christina Willis
Simi George
Philip Marraccini
Timothy McComb
Panomsak Meemon
Fenglin Peng
Chapter Activities from August 2017 – August 2018

Educational Outreach

Riverdale Elementary School

The SPIE chapter was invited to the Riverdale Elementary School to take part in a Teach-in. The officers Sanaz Faryadras and Steffen Wittek let a hundred kindergarten kids investigate the emission spectra of various lamps using diffraction glasses.

Optics Day

Optics Day is an annual event in which CREOL, The College of Optics & Photonics, opens its doors to the public. This year there were optics demos, lab tours, and talks from faculty members. 50 elementary school students came to experience the demos and tours in the morning, followed by over 50 attendees from the general public.
Professional Development: Seminars and Workshops

Career Advice for Graduate Students, Post-Docs, and Young Faculty
– Ronald Driggers

October 6, 2017

Dr. Driggers uses his 30 years of leadership experience (Division Head at NRL, ARL, and NVESD) to provide recommendations on managing and pursuing a rewarding career. All of the questions you should be asking will be discussed. How do I get hired above my colleagues? How do I get promoted to Team Lead, Branch Head, or Associate Professor? How will I be evaluated? What can I do to give me an edge? How do I get assigned as journal topical editor or conference committee member? How many papers should I be publishing? Should I write a book? What is “H-Factor?” What is the most effective way to secure external research funding? Questions like these will be discussed as well as the importance of supporting your colleagues, treating others as you would like to be treated, and time management. Optics and Electro-Optics are rewarding careers that can be fun, interesting, fulfilling, but you need to pay attention to your career path and your record.

Mathematica – Nicholas Cox & Roy Choudhury

November 11, 2017

The SPIE Student Chapter will be holding a short Mathematica workshop on 11/17 from 3-4 PM in Room 103. It will be led by Professor Roy Choudhury of the math department. We would like to focus on ways we can use Mathematica for easily solving optics problems that may be tedious to do by hand.
Apps Grad Students Should love - Sandy Avila  
November 22, 2017

This workshop will show which apps to use in order to get more organized, work more efficiently in teams and to manage references for a e.g. thesis.

A guide to publishing your work in peer-reviewed journals –  
David J. Hagan and Ronald Driggers  
February 2, 2018

The SPIE student chapter is hosting a workshop lead by Dr. David J. Hagan and Dr. Ronald Driggers on how to write and publish research papers in peer reviewed journals on Thursday Feb. 15th

Career Planning: An Academic Leader’s Perspective –  
Daniel M. Litynski  
May 4, 2018

Where will we be in five, ten or twenty years? What do we want to do (Vision), where do we want to go (Mission), and how do we get there (The Plan)? Will we be in industry, government, academia, or an entrepreneur (or do more than one)? Will we lead, follow, make a difference…? What are decision makers looking for when they hire someone? Dr. Dan Litynski will share his perspective and experience of over forty years as a leader in university and government organizations responsible for hiring, managing, and evaluating hundreds of personnel and for budgets worth millions of dollars.
Professional Development: Industry tours

BRIDG imec
February 23, 2018

BRIDG is the world’s first industry-led smart sensor consortium. They are a non-profit organization created to support research and commercialization for industry and academic customers. Their primary focus is the development of advanced smart sensor technologies in their state-of-the-art cleanroom facilities. BRIDG is currently home to imec Florida, which will be included in the tour. Imec is a global leader in nanotechnology research and development.

Luminar
March 30, 2018

The SPIE Student Chapter will be holding a tour of the Luminar facilities in Research Park, UCF on Friday, 3/30/18 10:00am-12:00pm. Luminar claims to have seen the future of transportation, let's see for ourselves what LIDAR is all about and what realization of it they want to launch to the market.
Novel laser systems using digital wavefront shaping - Juergen Czarske

Recent advances in digital control of coherent light enable paradigm shifts. Light scattering is exploited using adaptive optics and wavefront shaping. I will present novel adaptive laser systems for different application areas: Mode conversion in multimode fiber transmission lines, tiny lens-less endoscopes smart microscopes.

100 days in Antarctica - Sönke Wittek

In this talk I will share my experiences from my recent 4-month long stay at the German Neumayer Research station on the Antarctic shelf ice. While I was supporting the efforts to prepare the station for the Antarctic winter, I was also exposed to ongoing research, wildlife and the daily whereabouts of human life below 70 degree latitude.
Dr McManamon will talk about lidar technology and systems. He is just completing a second book in the area. He will talk about various lidar types and applications, and about components that make up lidar. The main lidar components are a laser, a receiver, and aperture, and processing. Some interesting types of lidar are range only lidar, 2 dimensional lidar, 3D lidar, and laser vibrometer. The most popular current application of Lidar is the driverless car. Luminar, right in Orlando, is one of the contenders in that area. It will be a huge market. 3D mapping is another commercial application. I believe lidar will be very useful exploring for, and extracting, fossil fuels. Lidar is a revolutionary sensor that is coming into its time.
Social Events

CREOL Social Hours

The SPIE Student Chapter, along with collaboration from other CREOL student chapters, host social hours throughout the year to bring students together. These include snacks, beverages, board/card/video games, and a relaxed atmosphere. We also utilize these social hours to inform students of SPIE’s activities and garner new members or volunteers for events. The CREOL/SPIE Social Hours are a long-standing favorite for the close-knit graduate student community at CREOL, with well over 40 attendees at each event.

September 26, 2017
March 09, 2018

Elections for new officers

August 24, 2018

Fall Picnic

The CREOL annual Fall Picnic is a big event put on by the various student chapters at CREOL. Outdoor games, grilling food, and enjoying the fall weather! Undergraduate students, graduate students, faculty, and staff all came out for a great time with the CREOL family.

November 7, 2017
## Financial Records from September 2017 – July 2018

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