Annual Report 2015

The National University of Ireland, Galway & University of Limerick (NUIG-UL) SPIE student chapter was established by postgraduate students from the Tissue Optics and Microcirculation Imaging Group, Applied Optics Group, National Centre for Laser Applications of NUI Galway and the Physics Department of University of Limerick. The aim of the chapter is to bring together people with common interests in the fields of optics and related disciplines, to organise events and activities, and to promote optics in the universities and the wider community.

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Chapter Advisor

Officers

Jim McGrath
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President

Kai Neuhaus
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Vice-President

Gillian Lynch
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Secretary

Sean O’Gorman
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Treasurer
<table>
<thead>
<tr>
<th>Name</th>
<th>Join Date</th>
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<tr>
<td>Aedán Breathnach</td>
<td>12 November 2015</td>
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<tr>
<td>Adam Collins</td>
<td>15 October 2015</td>
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<td>Mark Coughlan</td>
<td>26 May 2016</td>
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<td>Duraibabu Dinesh</td>
<td>24 April 2016</td>
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<td>Roshan Dsouza</td>
<td>4 October 2015</td>
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<td>Niamh Fitzgerald</td>
<td>13 July 2016</td>
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<td>Sean Gorman</td>
<td>26 November 2015</td>
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<td>Cerine Lal</td>
<td>12 April 2016</td>
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<td>Gillian Lynch</td>
<td>2 March 2016</td>
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<td>James McGrath</td>
<td>25 December 2015</td>
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<td>Kai Neuhaus</td>
<td>29 July 2016</td>
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Chapter Activities

SPIE Photonics West 2015 (Travel Grant Activity)

Kai Neuhaus successfully applied for the SPIE travel grant to attend Photonics West 2015 in San Francisco, California. During his time in SF he attended different workshops for chapter officers. The Student Chapter Leadership Workshop was a unique chance to meet not only with other officers from all over the world and to learn about the challenges they have to face in their chapters, but also to meet the SPIE Student Chapter co-ordinators Tasha Chicovsky and Dirk Fabian.

The officer workshops were a great way to communicate in a relaxed atmosphere and learn about different activities to improve chapter management. This also included events such as meeting with professionals from industry during “Lunch with Experts” in a question and answer session to give direct feedback about their experiences and challenges they had to face to become successful. The take away from those sessions is not only to learn from the experiences of those experts but also that success is built on accepting failure and being prepared to carry on.

Other workshops included lectures about presentation and writing skills, which are another great chance to get in contact with participants of the Photonics West event. As well as that, they are enjoyable and the lectures are eye opening and enriching.
Also other SPIE members from our chapter (Aedán Brethnach, James McGrath, Roshan Dsouza, and Adam Collins) were participating in the Photonics West conferences. They obtained funding from the College of Science from the National University of Ireland, Galway, and using the opportunity to present their work (see images below).

Roshan presenting results about the use of correlation mapping OCT to monitor the settling characteristics of dental cement.

Adam Collins presenting results about laser cutting of glasses at PW 2015.

Aedán presenting results about the for photoacoustic imaging.

Casual meeting at PW 2015 with Adam Collins, Aedán Breathnach, Dr. Hrebesch Subhash, and James McGrath.
Visiting Lecturer 2015 (Prof. Virgil-Florin Duma)

The SPIE visiting lecture event was considered to be a great success and was met with great interest from members all over the college. Virgil was very pleased with the atmosphere at the college and gave hands on sessions and agreed to on-to-one discussions student members. The SPIE visiting lecture event was advertised in collaboration with the college’s media office on public TV screens which appeared to be a good solution to raise awareness.

Election of Officers - 2015/2016

The elections of the new officers were conducted by anonymous ballots and the new chapter officers are:

- President: James McGrath
- Vice-President: Kai Neuhaus
- Secretary: Gillian Lynch
- Treasurer: Sean O’Gorman

The election results were made public to all members of our SPIE chapter and were accepted during a followup meeting.
Chapter Outreach 2015

The Chapter contributes to the outreach program of the university every year, this year had particular significance as we celebrated the international year of light 2015. Several of the chapter members were heavily involved in a coordinated Photonics based outreach effort. This was organised by a consortium of 8 universities and was called the GoPhoton! initiative. In particular, members of our chapter were involved in the development and promotion of apps which harness the power of the ubiquitous smartphone as a Photonics device (http://gophoton.eu/kits-and-apps/). The creation and promotion of these Apps across Europe at PhotonicSplash events by our members was fantastic for our University and our Chapter. Chapter members James McGrath and Sean O’Gorman travelled to Imperial College London to attend the LIGHTtalks “The Future is Bright Conference” and presented our apps at the Imperial Festival. This was a fantastic opportunity to meet people from the Photonics industry including members of SPIE chapters from across the UK.

Dublin Maker Festival 2015 (Outreach Event)

With the initiative of James McGrath we organized an outreach event in Dublin at the “Dublin Maker 2015” festival. Here, under the banner of our SPIE Student chapter we presented many simple Photonics demos including interferometry, smartphone apps and a simple blood perfusion medical imaging system made from a standard digital camera and laptop. A great thanks goes to all contributing members, Cerine Lal, Sean O’Gorman, and Kai Neuhaus. During this event the OSA
student chapter from NUI Galway and UCD was present as well. It was a great opportunity to exchange ideas and just having a chat, also with the president of the SPIE chapter of the UCD, Laura Tobin. Our SPIE chapter was demonstrating a variety of optical experiments and providing different optical handouts for children and adults. The response from visitors was extraordinary and it was a great joy to see the interest of people in optical science and physics.
Dublin Spire illumination marking the start of the International Year of Light in Ireland

The illumination of the world's tallest sculpture, the Spire of Dublin, was organized by Prof. Martin Leahy to raise awareness of optical technologies and the importance of light in one everyday's life in collaboration with the UNESCO International Year of the Light 2015.

Jame McGrath and Kai Neuhaus were attending this event to support the philosophy and ideals of the event and to meet with other chapters, including Prof. John Sheridan from UCD.

Meeting with other student chapters during the illumination of the Dublin Spire.  
Impression of the light show in action.

Chapter meeting with OSA chapter NUIG

Kai prepared a first introductory meeting with members of the NUI Galway OSA Chapter, calling for more collaborative activities. He presented ideas and suggestions he learned from the SPIE Officer Leader Workshop in SF and suggested to enhance gradually to engage with students from other chapters. Kai and James are now also members of the NUI Galway OSA Chapter.
Social Activities

Bowling: James McGrath (NUIG-UL SPIE president), Gillian Lynch (NUIG-UL SPIE secretary), Felicity McGrath (Imperial College London SPIE vice-president)

Dinner after bowling with members of the NUIG-UL SPIE chapter.

Planned Activities

Further activities planned are the visit of the University of Limerick and the communication of chapter activities at NUI Galway.

Preparations for student workshops to encourage students to join SPIE are planned and in preparation. We aim to hold our first event for students here in NUI Galway in October 2015.

Following the success of our attendance at the DublinMaker festival in July we plan to attend again in 2016 and also to organise similar outreach to promote Photonics at other science and maker festivals, including the local Galway Science and Technology festival which is due to be held in November 2015.

Another major event will be the attendance of Photonics West 2016 in San Francisco again.
Financial Information

Dedicated Chapter Bank Account

Sean O Gorman organized a dedicated bank account for our student chapter, which should simplify the financial management of our activities in the future.

Officer Travel Grant

The officer travel grant was used by Kai and shared with Roshan.

Activity Grant

Initial amount: 250.00 EUR
Amount spent: 200.00 EUR for social activities, preparation and contribution to outreach events, material for printing handouts for SPIE applications.
Available amount: 50 EUR