2018/2019 Annual Report
31 July 2019
1. Student Chapter Information

**Name:** Aston University Chapter  
**Address:** The Aston Triangle, Birmingham B4 7ET, United Kingdom  
**Established:** 17 August 2012  
**Total Current Member:** 11  
**Other incorporated chapter:** OSA Student Chapter

**Chapter advisor:** Prof. David J. Webb

**Current chapter officers:**

- President: Anastasiia Vasylchenkova vasylcha@aston.ac.uk
- Vice President: Yang Lu luy12@aston.ac.uk
- Secretary: Garba Nasir Bello bellong@aston.ac.uk
- Treasurer: Mahmood Abu Romoh aburomom@aston.ac.uk

**Other chapter members:**

- Abdallah Ali aliaai@aston.ac.uk
- Igor Kudelin bellong@aston.ac.uk
- Marie Zandi zandima@aston.ac.uk
- Namita Sahoo sahoon@aston.ac.uk
- Teerawat Piromjitpong piromjit@aston.ac.uk
- Paulami Ray 170211958@aston.ac.uk
- Sajid Zaki zakis@aston.ac.uk

2.1. Annual Chapter Member Meeting and Party (19 Oct 2018)

**Location:** Aston University, Birmingham B4 7ET, UK

**Type of Event:** Meeting/Networking event

**Participants:** ~12 PhD students

**Details:** We held an annual chapter meeting to celebrate with the members and handovered and introduced new officers to the chapter members. Having such a chapter annual meeting, we summarised all the activities we have organised over the previous year to the members and also inform the coming events. At the end of the meeting, previous officers handovered the duties to newly elected officers and also previous officers (former president: Teerawat Piromjitpong and former treasurer: Steffan Walters ) offered help to overcome the transition period for the chapter events planned in the previous year.
2.2. OSA Travelling Lecturer - Dr Aline Dinkelaker (28 Nov 2018)

**Location:** Aston University, Birmingham B4 7ET, UK

**Type of Event:** Lecture

**Participants:** 30 PhD students and research staff

**Lecture title:** Diode laser systems for microgravity applications

**Details:** With the assistance from former chapter officers and current chapter officers, our student chapter invited Dr. Aline Dinkelaker from Humboldt-Universität zu Berlin to give us a lecture. She kindly shared her research topic and research experiences with our colleagues in AIPT. She shared a totally different working environment with us to test the laser and the application of the laser system. Dr. Dinkelaker was also a chapter officer in her local institute and she shared her advice for the chapter organisation and welcome us to visit her institute in the future.
2.3. Big Bang Fair 2019 (13-16 Mar 2019)

Location: National Exhibition Centre (NEC), North Ave, Marston Green, Birmingham B40 1NT, UK

Type of Event: Outreach

Participants: ~100 young people per day

Details: The Big Bang Fair is a large annual event, attracting thousands of students aged 11-15, for STEM showcases exhibition. Our officer took part in the stand of Aston University, which was themed to STEM superheroes idea: children were gaining superabilities in activities around the stand: strength, levitation, etc.

Chapter President, Anastasiia Vasylchenkova, with colleagues on the Big Bang venue

2.4. IET EngFest (2 Apr 2019)

Location: the IET, 2 Savoy Place, London WC2R 0BL, UK

Type of Event: Outreach

Participants: ~100 young people

Details: The Institution of Engineering and Technology is holding annual IET Engineering festival EngFest, aiming promotion of engineering careers among young people, with a wide range of activities, workshops, etc. Our Officer took part in the event within stand of Aston University, where students have been practicing launching small helicopter, controlled by the power of their brain waves, and have been taking part in the career path quiz.
2.5. Informal research students discussions series of events (16 May 2019 and 25 July 2019)

**Location:** Aston University, Birmingham B4 7ET, UK

**Type of Event:** Meeting/Seminar

**Participants:** ~15 attendees per event (PhD research students and postdoc research fellows)

**Details:** So far, we have organised two informal PhD research student discussions. The voluntary speak is agreed to give a 20-minute presentation about their research topics and works. The session consists of a presentation and Q&A afterwards. Having such seminar/informal meeting, not only enhancing the opportunity for the research knowledge exchange but also the opportunity for the speaker to excel their presentation skills. The chapter will usually advertise the event and location/time one or two weeks before and the speaker also have plenty of time for the preparation and we also attract quite a lot of post-docs to our event and they provide a lot of useful tips for the research topics and methods.
2.6. Unifest at Aston University (9 July 2019)

**Location:** Aston University, Birmingham B4 7ET, UK  
**Type of Event:** Outreach  
**Participants:** 31 students

**Details:** The Unifest is an event organised by Aston University for local schools in order to promote higher education and, in particular, career path in engineering. During several days students are taking part in different workshops and getting a taste of university life. Our Officer took part in one of the workshops, where students were guided through the process of Arduino microcomputer programming, and controlling devices and sensors connected to it. In this group students were given a set of exercises with increasing complexity, and our Chapter Officer in the group of other teachers has been providing the technical and pedagogical support for the learning process on this workshop.
2.6. Become a PostDoc workshop (12 July 2019)

**Location:** Aston University, Birmingham B4 7ET, UK

**Type of Event:** Workshop

**Participants:** 21 PhD Students and Early-Career Research Fellows

**Details:** Aiming the professional development of our Chapter Students, we found it beneficial to run “Become a PostDoc” workshop, where more senior colleagues from our institute and visiting researchers shared their views on the process of early career in academic sector. The covered topics included writing proposals and applications for individual fellowships, difference between individual and group project funding, personal care and mental health issues during the position search and choice.

![AIPT PhD Students and Research Fellows during the event](image1.jpg)

2.7. OSA Travelling Lecturer - Dr Robert Woodward (18 July 2019)

**Location:** Aston University, Birmingham B4 7ET, UK
Type of Event: Lecture
Title: Pushing fibre laser technology into the mid-infrared - recent breakthroughs, outstanding challenges and the route to practical applications
Participants: 28 PhD Students and Research Fellows
Details: Dr Robert Woodward was invited via OSA Travelling Lecturer programme by initiative of one of our active Student Chapter members Igor Kudelin. Dr Woodward is working in Toshiba Research Europe, located in Cambridge, UK. In his lecture he presented a comprehensive and deep review of the mid-infrared laser industry and research, what was his topic during his previous work at Macquarie University, Australia. During his visit Chapter Officers and members have also organised a lab tour for Dr Woodward in AIPT research facilities. During informal discussions Dr Woodward also shared his experience of being Student Chapter Officer and working in R&D in industry.
**Future pre-agreed events**


**Location:** San Diego, the USA  
**Type of Event:** Conference and Leadership workshop  
**Representatives:** Nasir G Bello, Mahmood N Abu-romoh  
**Details:** Two chapter officers will be attending the SPIE OPTICS + Photonics Student Chapter Leadership workshop on the 10th of August. Planned networking with other vibrant chapter members from around the globe to share ideas that will be brought back to our Chapter to augment our activities and events. A Chapter poster will also be presented at the Conference.

2.9. Informal research students discussions series of events (monthly)

**Location:** Aston University, Birmingham B4 7ET, UK  
**Type of Event:** Meeting/Seminar  
**Participants:** 21 PhD Students and Early-Career Research Fellows  
**Details:** As a way to encourage PhD students and early stage researchers at Aston institute of photonic technologies (AIPT) to present their work in front of their colleagues, we initiated a series of monthly informal meetings. The series aims to give PhD students and early stage researchers the chance to improve their presentation skills in a relaxed and casual environment where they will be given 15 to 20 mins to show the audience a brief on their research topic and their recent updates and results. The presentation is usually followed by a friendly discussion while serving snacks and refreshments. Each one of the audience is given the chance to ask further questions, give constructive suggestions and valuable inputs and sometimes offer collaboration opportunities if possible. The series showed a great success and wide participation amongst AIPT members.

2.10. Co-organising ML-Photonics Workshop networking activities with University of Belgrade Student Chapter (26-27 Aug 2019)

**Location:** University of Belgrade, Belgrade, Serbia  
**Type of Event:** Activity  
**Estimated participants:** ~100 PhD Students and Early-Career Research Fellows  
**Details:** Our Chapter took an invitation from the organisers of Machine Learning workshop, which will take place during the Photonics conference, in Belgrade, Serbia. We are now in touch with our colleagues from the University of Belgrade Student Chapter, working on ideas of informal networking and ice-breaking activities, which can be carried out during the workshop.

2.11. Rutherford Appleton Laboratory visit (beginning of Sept 2019)

**Location:** Rutherford Appleton Laboratory, Harwell Campus, Didcot, OX11 0QX
Type of Event: Laboratory visit
Participants: ~10-12 PhD students
Details: The chapter is planning to have a laboratory visit to Rutherford Appleton Laboratory, one of the national scientific research laboratories in the UK, at the beginning of September. Currently, an initial contact for a group visit request to the laboratory is made and waiting for a positive reply and we are keen to get all our members involved for this event. The visit will bring so many benefits such as to understand the principles of science and physics and also know about what research they are currently undergoing. It is also our first time as a chapter to organise a visiting event outside of the university. Organising such events will also enhance the binding between the university and other research parties.

2.12. Neural Networks in optics and photonics workshop (11 Sept 2019)
Location: Aston University, Birmingham B4 7ET, UK
Type of Event: Workshop
Participants: ~15 PhD Students and Early-Career Research Fellows
Details: Dr Oleksandr Kotlyar, MSC Research Fellow from AIPt kindly agreed to give an introduction workshop to the powerful machine learning technique - neural networks. In particular, during the workshop participants will have an opportunity to get practical skills in training neural networks, preparing data for training and testing and optimising the network parameters.

Location: Aston University, Birmingham B4 7ET, UK
Type of Event: Workshop
Participants: ~15 PhD Students and Early-Career Research Fellows
Details: Lunch with professional is one of the future activities which the chapter is currently arranging. This will be a series of friendly meetings over lunch meal supported by the chapter in a monthly basis. The chapter will invite one of the professors from the department to have lunch with PhD, master in research students and early stage researchers. The aim of the series is to give research students the opportunity to have a casual talk with highly ranked lecturers and researchers from the department, listen to their stories of how they started their career and the difficulties they faced in their way to reach their current position. Our guests will also be willing to give guidance and advice to students who are planning to pursue similar career routes.

2.14 SPIE Visiting Lecturer (Oct 2019)
Location: Aston University, Birmingham, UK
Type of Event: Lecture
Participants: 25 PhD research students and staff
Details: Our Student Chapter will organise a talk of the visiting research via SPIE Visiting Lecturer programme according to the interests and demand of the researches in AIPT. We plan to carry out this event in October in order to promote SPIE and chapter membership among new-coming Master students.

2.15. Annual Chapter Member Meeting and Party (Nov 2019)
Location: Aston University, Birmingham B4 7ET, UK
Type of Event: Meeting/Networking event
Participants: ~12 PhD students
Details: The chapter will hold annual member meeting in November which will be both informative and fun filled. The chapter activities will be discussed with members and an election will be held for a new chapter officers. A brainstorm session to generate and suggest new ideas for the chapter will follow suit. Finally there will be music, karaoke, dancing and music performance by our beautifully voiced SPIE Chapter President. All of these will be accompanied with pizzas and light drinks.

3. Financial Details

Income

Previous years remaining budget
399.36 £

SPIE 2019 activity grant
383.79 £

Spent

Visiting lecturer catering
89.05 £

PhD informal meetings snacks and refreshments
31 £
Annual chapter meeting (Pizza)  91.9 £

Balance  571.2 £