Executive Summary:
SPIE Charles University in Prague Chapter (the Chapter) was founded in 2011 to publicize optics among many students of Faculty of Mathematics and Physics of Charles University in Prague (FoMP CUiP) as well as among high school students. Most of the members are master and PhD. students of Quantum Optics and Optoelectronics at FoMP CUiP; in recent years we have also members from the Department of Condensed Matter Physics (the same institute) and from Academy of Science (PhD. students of the FoMP CUiP who work there). In total, the Chapter has twenty-one members. Last year, new websites which represent our chapter were created and are available also in English version at http://spie.cz/en/. To spread our chapter and its activities we set up a Facebook page which is available at http://facebook.com/SpieOsaCharlesUniversity. Many activities are organized by the members of the Chapter for different focus groups. Demonstration of Physics experiments on schools, our largest project, impact few thousands elementary and high school students every year.

Contact Information:

For general questions about our chapter, please email our chapter president elect, Lukáš Nowak, at lukas.nowak22@gmail.com.

Website: http://spie.cz/en/
Facebook Page: http://facebook.com/SpieOsaCharlesUniversity
2018 - 2019 Officer Listing:
Three officers were elected again, so we provide their headshots in the part of 2019-20 officer listing.

Lukáš Nowak  
Vice-president  
Lukas.nowak22@gmail.com

Andrej Farkaš  
President  
Andrej.farkas1@gmail.com

Tomáš Maleček  
Communications officer  
t.malecek@gmail.com

Dominika Tanglová  
Secretary  
tanglovar@seznam.cz

Lukáš Beran  
Treasurer  
Beranlu@gmail.com
2019 – 2020 Officer Listing:

Lukáš Nowak
President
1st Year Master’s Student
Lukas.nowak22@gmail.com

Andrej Farkaš
Vice-President
1st Year Master’s Student
Andrej.farkas1@gmail.com

Tomáš Maleček
Treasurer
3rd Year Bachelor’s Student
t.malecek@gmail.com
Vašek Maixner  
Communications officer  
2nd Year Master’s Student  
vaclavaixner@gmail.com

Matúš Hodoš  
Secretary  
3rd Year Bachelor’s Student  
matus.hodos@gmail.com

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**Student and Community Membership**

At the time of this report, there are 21 student members affiliated to the Sample Univ. Chapter and there are currently about 50 students involved in the Sample Univ. Optics Alliance.

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Expected Grad Month/Year</th>
<th>SPIE Membership Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lukáš Beran</td>
<td><a href="mailto:beranlu@gmail.com">beranlu@gmail.com</a></td>
<td>September 2020</td>
<td>9 January 2020</td>
</tr>
<tr>
<td>Andrej Farkaš</td>
<td><a href="mailto:andrej.farkas1@gmail.com">andrej.farkas1@gmail.com</a></td>
<td>September 2021</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Erik Hendrych</td>
<td><a href="mailto:erik.hendrych@seznam.cz">erik.hendrych@seznam.cz</a></td>
<td>September 2020</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Jan Hrabovský</td>
<td><a href="mailto:honza.hrabovsky@gmail.com">honza.hrabovsky@gmail.com</a></td>
<td>September 2023</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Katarína Križanová</td>
<td><a href="mailto:111katkakrizanova@gmail.com">111katkakrizanova@gmail.com</a></td>
<td>September 2020</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Marcel Lamač</td>
<td><a href="mailto:marcel.lamac@email.cz">marcel.lamac@email.cz</a></td>
<td>September 2020</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Kamila Moriová</td>
<td><a href="mailto:morikam@gmail.com">morikam@gmail.com</a></td>
<td>September 2020</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Dominika Tanglová</td>
<td><a href="mailto:TanglovaR@seznam.cz">TanglovaR@seznam.cz</a></td>
<td>September 2020</td>
<td>2 July 2020</td>
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<tr>
<td>Vladislav Wohlrath</td>
<td><a href="mailto:wwohlrath@gmail.com">wwohlrath@gmail.com</a></td>
<td>September 2021</td>
<td>2 July 2020</td>
</tr>
<tr>
<td>Martin Zukerstein</td>
<td><a href="mailto:martinzukerstein@seznam.cz">martinzukerstein@seznam.cz</a></td>
<td>September 2020</td>
<td>5 July 2020</td>
</tr>
<tr>
<td>Miloslav Surynek</td>
<td><a href="mailto:milsur@seznam.cz">milsur@seznam.cz</a></td>
<td>September 2020</td>
<td>5 July 2020</td>
</tr>
<tr>
<td>Zdeněk Kašpar</td>
<td><a href="mailto:zde.kaspar@gmail.com">zde.kaspar@gmail.com</a></td>
<td>September 2020</td>
<td>5 July 2020</td>
</tr>
<tr>
<td>Matúš Hodoš</td>
<td><a href="mailto:matus.hodos@gmail.com">matus.hodos@gmail.com</a></td>
<td>September 2022</td>
<td>9 January 2020</td>
</tr>
</tbody>
</table>
Activities Report

**Physics into our own hands**

**Organizer:** Whole chapter  
**Date/Time/Location:** Multiple dates – we visited 9 schools in Czech republic and 2 in Slovakia  
**Participants:** Around 1300 children  
**Cost:** $1800 (with help from our OSA funding and university)

This year we have managed to visit 11 schools, which is one more than planned, because we were able to bring on new bachelor students to help us. At every school we showed interesting experiments to at least 4 classes (120 children) with maximum 6 classes (180 children). Depending on the age we choose between two models. For younger children (up to 15 years of age) we are doing our presentation in form of experimental stops. Usually we divide our experiments into 4 posts - Optics, Magnetism and superconductivity, Thermal capacities (fire) and low temperatures (liquid nitrogen). We are trying to show them as many experiments as possible with providing basic theory and understanding. Every presentation is finished by preparing ice cream for the whole class using liquid nitrogen. For older children (high schoolers) we have prepared more theoretical presentation. We are still showing them a lot of experiments, but we are providing more in depth look at the physical mechanisms behind them. We are also adding more optical experiments and more complex (like manipulating band gap of a semiconductor LED). We are also trying to engage them in helping us with experiments so they can try as many things as possible with their own hands (as per our project name).

Our program is free for schools, are not payed and we are doing all of this as voluntary work.
Other outreach events
Organizer: Whole chapter
Date/Time/Location: 4 separate dates – Gaudeamus fairs in Brno and Prague, Night of science and Festival of Science in Prague
Participants: These events were attended by more than 30 000 members of the public
Cost: $150 (with help from our OSA funding and university and respective organizers of the events)

Similar to our Physics into our own hands series we are showing interesting physics phenomena on public events in Prague and in Brno. We have been invited to four of these events during 2019. We have given lectures, but mostly we were choosing form of interactive experiments.
Social and recruitment events
Organizer: Officers
Date/Time/Location: 4 events – Christmas party (December 2018), LaserGame (April 2019), BBQ (June 2019) and elections (November 2019)
Participants: These events were attended by almost all chapter members.
Cost: $0 (paid from our OSA funding)

We organize at least 4 yearly events – Christmas party, some activity, BBQ and elections with pizza party. All of these events are for our members and also to recruit new members. This year was quite fruitful for new students as you will see in coming weeks with new membership registrations. We will be submitting bulk membership form after Christmas.
## Treasurer’s Report

<table>
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<tr>
<th>Date</th>
<th>Description</th>
<th>Notes</th>
<th>Credit (Income)</th>
<th>Debit (Expense)</th>
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<td>Anticipated End of Year Balance</td>
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*Anticipated funding amounts based on chapter budget and last year’s costs/incomes.

## Conclusions and Recommendations

We have visited over 11 schools and 4 public events with total number of visitors in tens of thousands! We also recruited new students to our chapter. This year we have been visited by SPIE leadership, we explained our activities and showed them one of the laboratories our members are involved in. Our chapter President also attended SPIE optics and photonics in San Diego and worked on our networking.

![Image of chapter members]

Next year, we want to continue our outreach program, start new bachelor project award (something similar to best poster award for younger students). We also want to branch out more to personal development and industry connection type events. We would like to visit few manufactures of optical components such as Meopta in Přerov. One big event we want to do is joint conference with OSA chapter in Brno and OSA chapter at Czech technical university using all of our lecturer grants.