

IEEE Photonics Society Sweden Chapter

IEEE Sweden Section Chapter Chair Workshop (CCW) 2023

26-Oct-2023 (rev. A)
Hybrid meeting (Linköping Univ. & Zoom)

Arne Alping, PhD, Docent, IEEE Senior Member
Chapter Board Chair

Member of the IEEE Sweden Section NOM Committee

Member of IEEE PS, MTT-S, ComSoc, and SSCS

Member of IEEE Standards Association (SA)

Member of PhotonicSweden, SOS, EOS, and Photonics21

arne.alping@ieee.org

[Link to IEEE PS-Sweden web site](#)

IEEE Photonics Society

Overview & benefits

- The **Photonics Society** is part of the **IEEE** (400 000+ members). It is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity
- Our vibrant technical community of **100,000+ professionals** is dedicated to transforming breakthroughs in quantum physics into the devices, systems and products we use in our daily lives. From ubiquitous and inexpensive global communications via fiber optics, to lasers for medical and other applications, to flat-screen displays, to photovoltaic devices for solar energy, to LEDs for energy-efficient illumination, there are myriad examples of the society's impact on the world around us.
- The Society provide members with professional growth opportunities, publish journals, sponsor conferences and support local chapter and student activities around the world.
- **IEEE Photonics Society Sweden Chapter**
40 members (65% univ & institutes, 35% companies)

IEEE Photonics Society

- Reduced conference fees
- Open access publishing discount (15%)
- Free full, online access to IEEE-PS journals:
 - IEEE Photonics Journal
 - IEEE Photonics Technology Letters
 - IEEE Journal of Quantum Electronics
 - IEEE Journal of Selected Topics in Quantum Electronics
 - IEEE/OSA Journal of Lightwave Technology
 - IEEE/OSA Journal of Optical Communications & Networking
 - IEEE/OSA Journal of Display Technology
- Free online access to all IEEE PS-sponsored conference proceedings



IEEE Photonics Society – Sweden Chapter

Board members (7)

- Chair: Dr. **Arne Alping**, MWP tech consulting
- Vice Chair: Prof. **Philippe Tassin**, Chalmers Univ. of Tech.
- Secretary: Prof. **László Veisz**, Umeå University
- Treasurer: Dr. **Rafael Puerta**, Ericsson Research
- Webmaster: *Vacant*
- MDO: Dr. **Xiaodan Pang**, KTH
- WIP/WIE: Prof. **Qin Wang**, RISE/KTH
Dr. **Shagufta Naureen**, Coherent Corp.
- PhD Thesis Award: Prof. **Philippe Tassin**, Chalmers Univ. of Tech.
- Newsletter Editor: Dr. **Arne Alping**, MWP tech consulting

- 5-8 Board meetings per year
- All Board meetings are virtual using MS Teams

MDO = Member Development Officer
WIP/WIE = Women in Photonics/Engineering

IEEE Photonics Society – Sweden Chapter

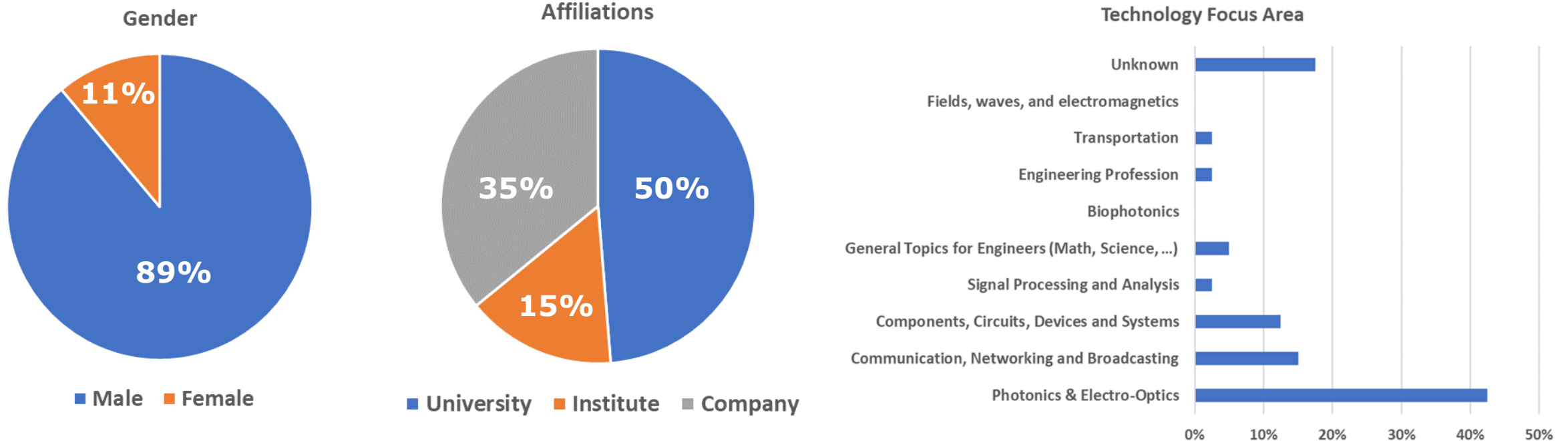
Membership statistics (1/2)

- Membership statistics extracted from “**IEEE OU Analytics**” [2023-10-25]
- Currently the total number of members is **40** [± 0 since last year]; by the end of the year, it is typically a few more members
- Gender: In total 5 female (11%) [± 0 since last year] and
2 of them are Board members (*i.e.*, 30% of the Board)
- Senior members: **16** [± 0 since last year]
- Student members: **2** student members [± 0 since last year] (very few; >300 student members in Sweden)
Note: The two students that the Chapter sponsored a 1-year student membership in 2022 became regular members

Count by Region and Grade								
Region	Council	Section	Grade Category	Grade	Total			
R8	Region 8 - No Council	Sweden Section	IEEE Grades	Fellow	3			
				Graduate Student Member	2			
				Life Fellow	1			
				Life Senior	1			
				Member	17			
				Senior Member	16			
				Total	40			
				Total				40
				Total				40
				Total				40
Grand Total					40			

IEEE Photonics Society – Sweden Chapter

Membership statistics (2/2)



- Number of members: **40** (11% female)
Note that, in Sweden for the last 10 years, only 10% are female of the MS students examined in engineering physics and electrical engineering¹⁾
- Number of Board members: **7** (30% female)
- 35% companies and 65% universities/institutes

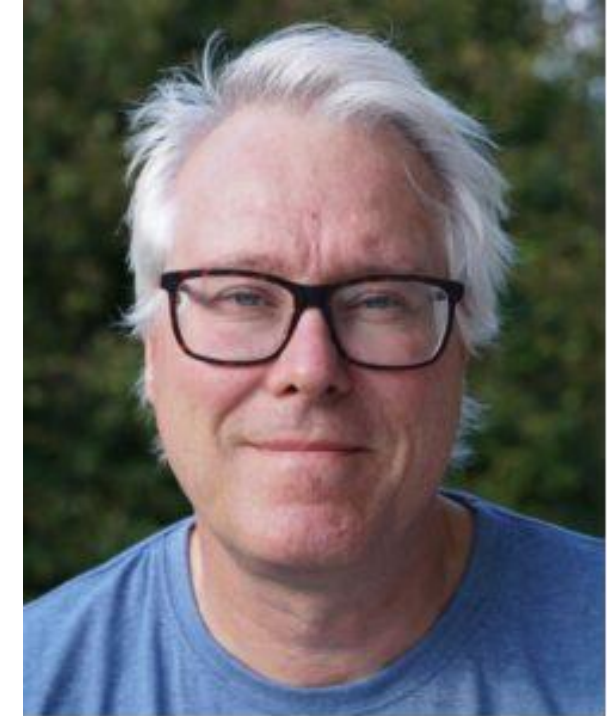
Statistics from IEEE OU Analytics (2023-10-25)

¹⁾ UKÄ report 2020-03-23

IEEE Photonics Society – Sweden Chapter

Chapter member elected IEEE Fellow 2023

- Election to the grade of **IEEE Fellow** is one of the highest honors that can be bestowed upon our members by the Institute in recognition of their technical, educational, and leadership achievements. Only a select few IEEE members earn this prestigious honor. Nineteen IEEE Photonics Society members were elevated to the grade of IEEE Fellow for 2023.
- **Prof. Magnus Karlsson (Chalmers)** was elected to the grade IEEE Fellow for fundamental contributions to the study of nonlinear fiber propagation and advanced modulation formats
- Biography: Magnus Karlsson is professor in photonics, with focus on fiber optics and optical communications. His expertise is wave propagation in optical fibers, polarization effects, nonlinearities, and optical communications. Together with Prof. Peter Andrekson, he leads the fiber optics group at the **Photonics Laboratory**. In 2010 he co-founded the **Fiber Optic communication Research Center** (FORCE) at Chalmers. Besides teaching SSY085, "Wireless and Photonics System Engineering" and MCC046 "Photonics and Lasers" he is Deputy Editor for Optics Express, Assoc. Editor for J. Lightwave Technol., and member in the technical program committee for Conference on Lasers and Electro-Optics (CLEO). He is also vice-head of department at the Dept. of Microtechnology and Nanoscience, with responsibility for research and the graduate school.



IEEE Photonics Society – Sweden Chapter

Mission related activities 2023

➤ Technology areas

- Covering lasers, fiber-optics, bio-photonics, displays, solar energy conversion, LED illumination, ...

➤ Recognitions (Award programs)

– Annual Best PhD Thesis Awards

- 2022: **Dr. Samuel Gyger**, KTH (3 nominations); Award was **10,000 SEK**
- 2023: Nomination period ends 30-Nov-2023; Award is **10,000 SEK**

– Best Poster Awards (3x) at the Swedish annual OPS-2023 conference

- **David Ramos** (IRnova & KTH), **Dr. Patrick Mutter** (KTH), and **Dr. Abida Perween** (SE Univ, Nanjing, China)
- The PhD student is offered a 1-year IEEE student membership

➤ Sponsoring Women-in-Photonics (WIP) events

- Women-in-STEM event at PGC-2023, Kista-Sthlm, with 7 invited speakers

➤ Sharing with Chapter members, Section members, and IPS members

- Through publishing **Chapter Newsletters** and contributions to Section and Society Newsletters

➤ Events to support involvement with local industry, institutes, and universities

- **OptoPub in Stockholm** is co-organized with **PhotonicSweden** (14-Dec-2022 and planning for Nov/Dec-2023)

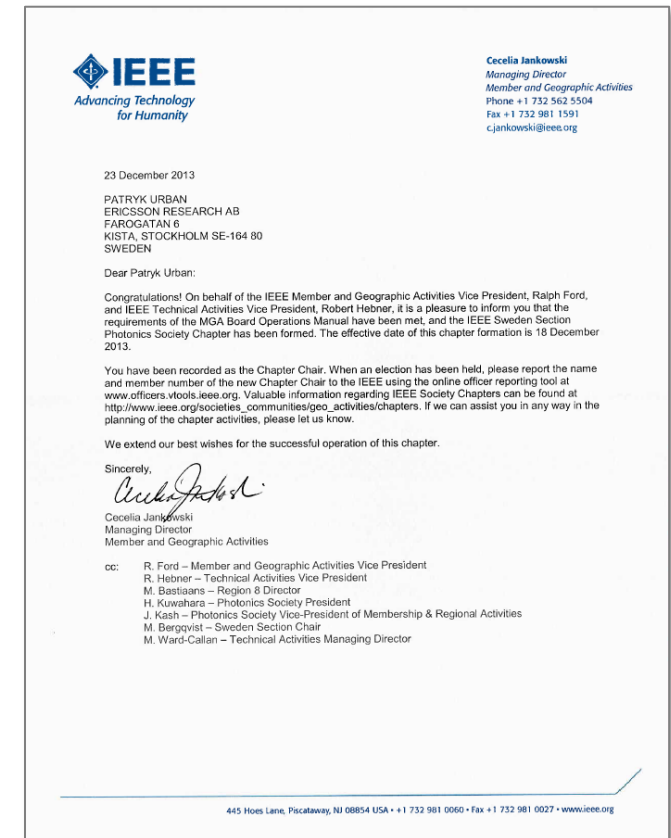
➤ Professional development

- **OptoPub** (physical/virtual & mingle) & **technical webinars** (e.g., newly graduated PhDs)

IEEE Photonics Society – Sweden Chapter

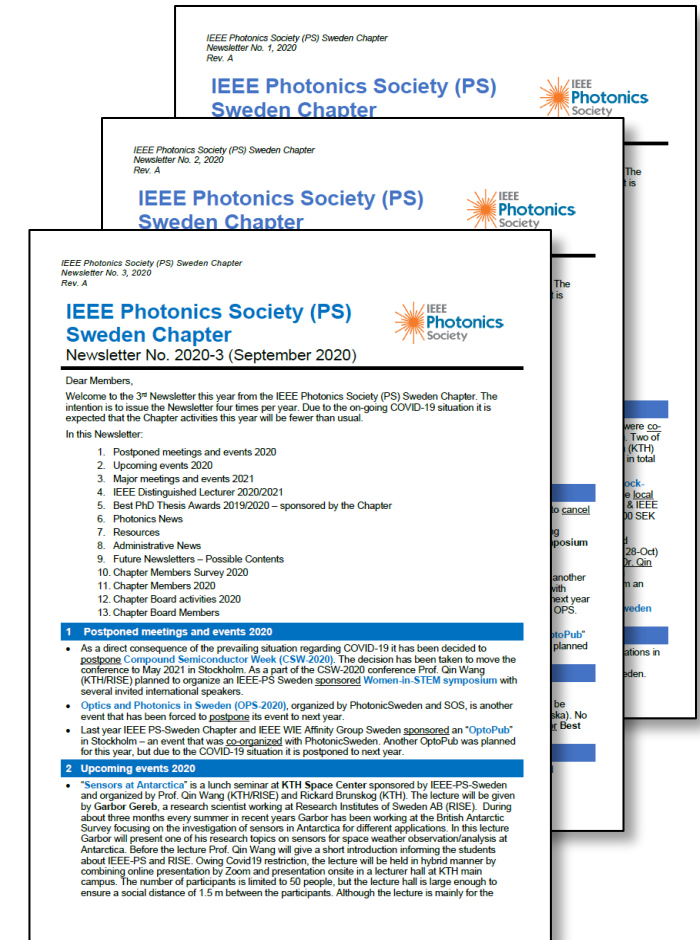
Sweden Chapter 10-Year Anniversary

- On **18 December 2013** the Sweden Chapter was approved by IEEE MGA (Member and Geographic Activities)
- **Dr. Patryk Urban** was the first Chair of the Chapter
(then at Ericsson Research, Sthlm, and now Associate Professor and Head of Optical Reference Network Laboratory at West Pomeranian University of Technology in Szczecin, Poland)
- Ideas for commemoration:
 - Possible dates in Q4-2023 or Q1-2024
 - Extended OptoPub in Sthlm ?
 - Possibility to get extra funding from IEEE Sweden Section ?



IEEE Photonics Society – Sweden Chapter Newsletters

- **Issuing schedule:** Intention is once per quarter (so far **19 issues** since the start in **2019**)
- **Distribution:** To all IEEE-PS-Sweden members
- **Content of current Newsletters**
 - Presentation of IPS-Sweden **events & activities**
 - Presentation of **members lab**, department, company (This is My Lab ...)
 - Presentation of recently **defended PhD theses**
 - Presentation of photonics related **news**
 - Presentation of photonics related **resources**
 - Presentation of the IPS-Sweden Board members
 - Summaries of attended conferences, workshops, meetings, etc.
 - Announce nomination for IPS-Sweden sponsored workshops
 - Announcing & reporting from IPS-Sweden Best PhD Thesis Award
 - Announcing & reporting from IPS-Sweden sponsored workshops, etc.
 - Announcement of upcoming events, conferences, workshops, etc. (not necessarily sponsored by IEEE, but of interest for our members)
- **Possible content in future Newsletters**
 - Presentation of recently started PhD students (photo & short description)
 - Presentation of new faculty and new jobs of IPS-Sweden members

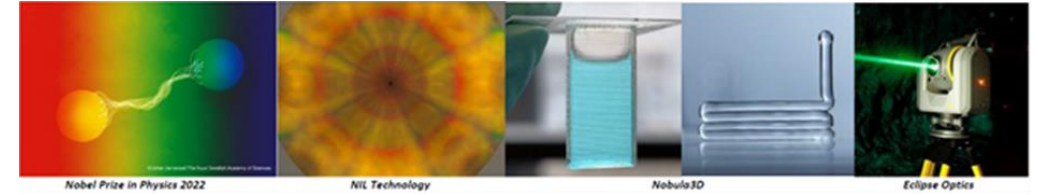


IEEE Photonics Society – Sweden Chapter

OptoPub in Kista/Sthlm

➤ Venue

- Date and time: Wednesday, 14-Dec-2022, at 17:30-21:00
- Location: RISE-Acreo, Electrum at Kista/Stockholm, Kistagången 16 / Isafjordsgatan 22
- Local hosts: **Lennart BM Svensson** (PhotonicSweden) & **Qin Wang** (IEEE/RISE/KTH)
- Attendance: About **45 people** on site (no virtual meeting)
- IEEE-PS-Sweden sponsoring: After the presentations mingle with refreshments



➤ Agenda

- Introduction (Qin Wang gave a short presentation of the IEEE-PS-Sweden)
- Prof. Mohamed Bourennane (Fysikum, Stockholm Univ), "**2022 Nobel Prize in Physics: Entangled photons**"
- Fredrik Mattinson (Senior Optical Designer, NIL Technology ApS, Denmark), "**Latest advancements at NILT on flat metalens based camera modules in near infrared**"
- Prof. Michael Fokine (CSO Nobula3D AB & Applied Physics, KTH-Alba Nova), "**Nobula3D's technology and success story**"
- Lars Rymell (CEO, Eclipse Optics AB, Stockholm), "**Success story for Best Photonics Company of 2022**"



IEEE Photonics Society – Sweden Chapter

Best PhD Thesis Award

- In 2017 the Sweden Chapter established an Award for recently graduated PhD researchers that have written an outstanding doctoral thesis in the general area of optics and photonics and that represents a remarkably impactful contribution to their field
- The thesis must be nominated by the main supervisor
- Award Committee Chair:
 - **Prof. Philippe Tassin, IEEE & Chalmers Univ. Tech.**
- The chair appoints suitable reviewers and based on the review reports, the Review Committee will then select the award winner
- The award consists of **10,000 SEK** and a diploma
- The Award is funded by an IEEE Photonics Society Annual Chapter Grant
- Award criteria:
 1. **Quality and quantity of the research** (e.g., as estimated from bibliometric analysis and degree of contribution)
 2. **Pedagogic quality** (the depth of understanding demonstrated by the candidate and whether the thesis is accessible for the reader or not)
 3. **Context** (as the thesis work been properly situated with respect to existing knowledge and literature?)
 4. **Quality of writing** (Is there a coherent, structured story throughout the thesis?)
 5. **Presentation-technical aspects** (layout, figures, spelling, etc.)
- **Best PhD Thesis Award 2021** – 8 nominations (**LiU**, Chalmers, KTH, GU)
- **Best PhD Thesis Award 2022** – 3 nominations (**KTH**, Chalmers, GU)
- **Best PhD Thesis Award 2023** – nomination period ends 30-Nov-2023



IEEE Photonics Society – Sweden Chapter

IEEE Best PhD Thesis Award 2022

- The IEEE-PS Sweden Chapter's **2022 IEEE Best PhD Thesis Award** in Optics/Photonics was closed for nominations on 30-Nov-2022. Decision on 8-April-2023 and payout on 5-May-2023.
- Three (3) nominations were received from Chalmers, KTH, and Gothenburg Univ.
- The 2022 Award amounted **10,000 SEK** and a certificate. The Award was funded through an **IEEE Photonics Society 2022 Annual Chapter Grant**
- The chair of the IEEE Best PhD Thesis Award Committee was **Prof. Philippe Tassin**, Chalmers
- The Award has been granted to **Dr. Samuel Gyger** (Department of Applied Physics, KTH; now a Postdoc at Stanford University, CA, USA) for his thesis entitled "**Integrated Photonics for Quantum Optics**". The supervisor was **Prof. Val Zwiller**, Applied Physics, Quantum and Biophotonics, KTH
- The Award committee's motivation is: *"This year's Best PhD Thesis Award goes to Dr. Samuel Gyger for his original contribution bridging the fields of integrated photonics and quantum optics. His thesis starts with an interesting overview of single-photon emitters and detectors and continues with describing the clever use and experimental validation of different materials to generate, manipulate, and detect single photons in integrated optical devices. The original fabrication processes and measurement tools that Dr. Gyger developed demonstrate his in-depth knowledge of the field and the rigorous methodology and originality displayed by his work. The committee enjoyed reading this well-structured thesis that presents complex ideas and concepts in a way that is both engaging and easily understandable".*
- The Awards committee also hopes that this thesis can serve as good examples for doctoral students in the early stages of their own thesis writing.



IEEE Photonics Society – Sweden Chapter

IEEE Women-in-STEM event @ PGC-2023

- **More Women-in-STEM for a Greener World**
- 23-Aug-2023 12:00 – 13:00 at the **Photonic Global Conference (PGC-2023)**, KTH AlbaNova Campus, Sthlm (around 100 participants)
- Organizers: **Prof. Qin Wang** (IEEE/RISE/KTH) and **Dr. Shagufta Naureen** (IEEE/Coherent Corp)
- Panelists: (1) **Åsa Claesson** (RISE), (2) **Prof. Lena Wosinska** (Chalmers), (3) **Prof. Katia Gallo** (KTH), (4) **Hedda Malm** (Alfa Laval Technologies), (5) **Prof. Xiaoyi Bao** (Univ. Ottawa), (6) **Dr. Marie Delmas** (IRnova AB), (7) **Dr. Elena Vasileva** (Cobolt AB)
- IEEE-PS-Sweden sponsored the lunch (wraps and mineral water) with funding from an IEEE Photonics Society WIP/WIE Grant [\$2,500 USD]
- About 75 participants



Prof. Qin Wang
RISE/KTH
IEEE-PS-SE Board



Dr. Shagufta Naureen
Coherent Corp – Sweden
IEEE-PS-SE Board

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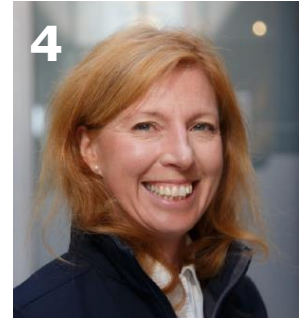
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IEEE Photonics Society – Sweden Chapter

Optics & Photonics in Sweden (OPS-2023)

- **Optics & Photonics in Sweden (OPS-2023)**
- Dates: 17-19 Oct 2023
- Venue: KTH-Electrum, Kista-Stockholm, Sweden
- Organizers: PhotonicSweden and KTH
- General Chair: Prof. Mattias Hammar (KTH)
(*Prof. Laszlo Veisz (IEEE/Umeå Univ) was a member of the program committee and he was also a keynote speaker*)
- Around **180 participants**; focus is on networking
- Since 2016 the IEEE-PS Sweden Chapter has sponsored the **Best Poster Awards** [5,000 SEK]
 - 1x Best Poster Award (3,000 SEK) and 2x Best Poster Distinctions (1,000 SEK each)
 - A 1-year IEEE Student membership will be added for the Awardees being students
 - This year funded through the IEEE Photonics Society 2023 Annual Chapter Grant [\$500 USD]
 - Was announced on (1) OPS-2023 web site, (2) the IEEE-Sweden web site, (3) IEEE vTools-Events, and (4) in IEEE-PS-Sweden Newsletter
 - Award Committee:
Chair: **Prof. Qin Wang**, RISE/KTH/IEEE,
Prof. Mattias Hammar (KTH)
Åsa Claesson (RISE)



 **PhotonicSweden**
The Swedish Technology Platform in Optics and Photonics



IEEE Photonics Society – Sweden Chapter

IEEE Best Poster Awards @ OPS-2023

- Since 2016 the IEEE-PS Sweden Chapter has sponsored the Best Poster Awards at the annual Optics & Photonics Conference (OPS). The Awards were funded through an **IEEE Photonics Society 2023 Annual Chapter Grant**
- This year there were 15 posters presented and the evaluation criteria included poster design (clarity and appearance), the scientific-technical merit and impact of the work, and the oral presentation of the poster
- A summary has been published on **LinkedIn**

➤ Best Poster Award recipients

1. **David Ramon** (IRnova AB & KTH) [3 000 SEK]: "**Optical concentration effect in fully delineated mid-wave infrared T2SL SWaP HD detectors arrays**" [+15 co-authors]
+ 1-year IEEE student membership
2. **Dr. Patrick Mutter** (Laser Physics, KTH) [1 000 SEK]: "**The first backward wave optical parametric oscillator waveguide**" [+3 co-authors]
3. **Dr. Abida Perveen** (Southeast Univ, Nanjing, China) [1 000 SEK]: "**Self-powered and highly efficient ion-diffused MAPbBr₃ single crystal-based UV-Vis photodiode**" [3 co-authors and 2 universities]

➤ Awards Committee

- Chair: **Prof. Qin Wang** (IEEE and RISE/KTH),
- **Prof. Mattias Hammar** (KTH)
- **Åsa Claesson** (RISE)



IEEE Photonics Society – Sweden Chapter

Sponsoring IEEE Student memberships

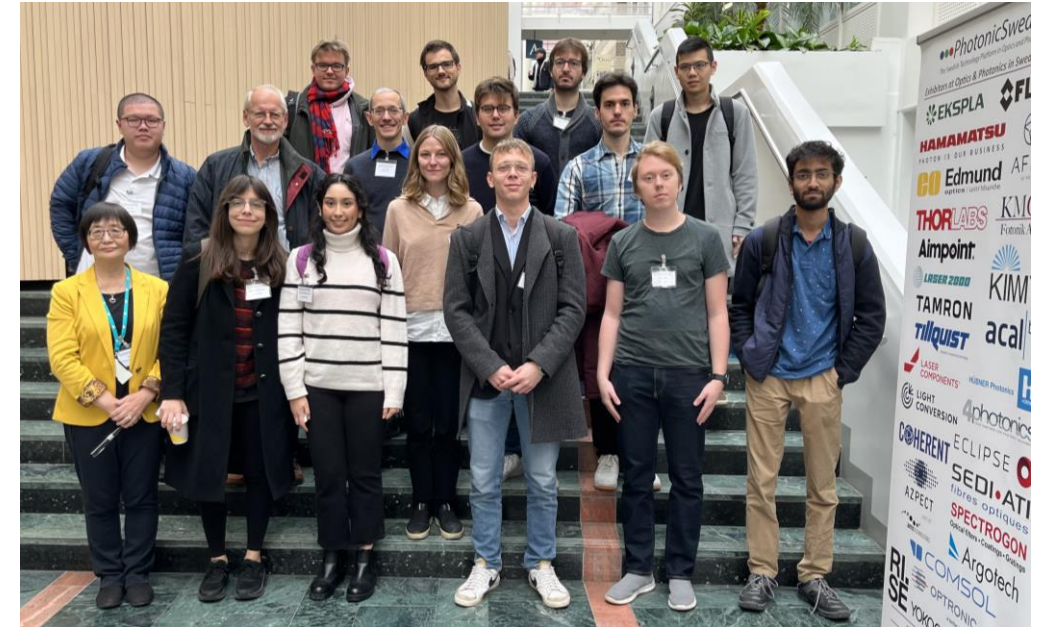
- The intention is to increase the number of students being members of our Society with the hope that they will stay as regular members when they enter their professional career
- The sponsoring of a **1-year IEEE student membership fee** will be used, *e.g.*, as an add-on to our Best Paper/Poster Awards
- **Some restrictions:**
 - Recipients should not be a Photonics Society student member
 - The student needs to be enrolled at a Swedish university
 - The student will get this gift only once
- **The process:**
 - The cost is **\$37.00 USD** (*i.e.*, **406 SEK**) per student membership (2023) (*IEEE membership: \$27.00 USD and IEEE Photonics Society membership: \$10.00 USD*)
 - However, it should be reimbursed **retroactively**



IEEE Photonics Society – Sweden Chapter

Sponsoring IEEE Student memberships 2023

- IEEE Best Poster Award at OPS-2023
 - **David Ramon** (IRnova AB & KTH)
"Optical concentration effect in fully delineated mid-wave infrared T2SL SWaP HD detectors arrays"
- Best Master Thesis awarded at the OPS-2023
 - **Saga Westerberg** (Lund University)
"Spectral broadening of 4 mJ femtosecond pulses using a bulk multi-pass cell"
 - **Julia Lövgren** (Lund University)
"Discharge and flame chemistry in lithium-ion battery vent gases"
- Up to 10 Master & PhD students in photonics may apply for a sponsored 1-year IEEE student membership fee if applied before 1-Dec-2023
 - Invitation mainly directed to students at OPS-2023
 - An invitation has been published on **LinkedIn**
 - **Thor Labs Sweden** sponsored 10 undergraduate students free admission for OPS-2023 (worth 1,875 SEK each)



IEEE Photonics Society – Sweden Chapter

Plans for 2024+

➤ Continue successful activities:

- Select winner of **2023 Best PhD Thesis Award** & nomination to the **2024 Best PhD Thesis Award**
- Sponsoring/organizing **Workshops, Seminars** and **Webinars** on Photonics (e.g., OptoPub)
- Sponsoring/organizing **Women in Photonics (WIP)** events
- Sponsoring **Best Poster/Paper Awards**
 - Optics & Photonics in Sweden (OPS-2024)
- Continue publishing an IEEE-PS-Sweden quarterly **Newsletter**
- Update & develop the IEEE-PS-Sweden **web site**
- Continue creating **guidelines** for yearly activities (not inventing the wheel every time)

➤ Recruiting more members to the IPS-Sweden Board (?)

- Possibly adding some more to diversify geographic location and technology areas

➤ Increase the number of members (especially student members)

➤ Improve IPS-Sweden administration

- Create a common document repository (for MoM, guidelines, templates, etc.)

➤ Continue improving interaction with IEEE-PS-Sweden members

- Newsletters, web site, meetings, surveys, etc.

➤ Continue interactions with other Swedish photonic organizations

- Swedish Photonics Leadership Forum (PhotonicSweden, SOS, EOS)

➤ Investigate possibilities of joint activities

- with other Swedish Chapters: (1) IEEE Women in Engineering (WIE) Affinity Group Sweden, (2) IEEE MTT (microwave photonics), (3) IEEE COM (optical networks)
- Joint Nordic Chapter: Denmark, Norway, Finland, and possibly Baltic countries

Additional slides

History (1/4) – Major Milestones

- **2013 – The IEEE Photonics Society Sweden Chapter was established**
 - Founded by Dr. Patryk Urban
- **2015 – The first Board was elected**
- **2015 – 1st Outreach event showcasing photonics to the general public**
 - Introduce a Girl to Photonics
- **2015 – 1st Women-in-Photonics (WIP) event**
- **2016 – 1st event with an invited IEEE Distinguished Lecturer**
- **2016 – Swedish Photonics Leadership Forum started**
 - A collaborative effort including PhotonicSweden, Swedish Optical Society (SOS), and European Optical Society (EOS) in Sweden
- **2016 – 1st Best Poster Award at Optical & Photonics in Sweden (OPS)**
- **2017 – 1st Best PhD Thesis Award** (in optics & photonics)
- **2019 – 1st IEEE-PS-Sweden Quarterly Newsletter**
- **2019 – 1st OptoPub event** (in collaboration with PhotonicSweden)
 - Events to support involvement with local industry, institutes, and universities
- **2020 – 1st Webinar**
 - Events to support “professional development”
- **2022 – 1st Webinar with an invited IEEE Distinguished Lecturer**
- **2022 – 1st presentation of the Chapter in the IEEE-PS Global Newsletter**

History (2/4) – Organized/sponsored activities

Year	Organized/sponsored event	Remarks
2014	<ul style="list-style-type: none"> • 18th Conference on Optical Network Design and Modelling (KTH) [May] • "<i>Transformation Optics</i>" (Chalmers) [Nov] 	Technical sponsor Seminar, Co-organizer
2015	<ul style="list-style-type: none"> • "<i>Frontiers and Challenges in Optical Communication</i>" (Chalmers) [Sept] • "<i>Introduce a Girl to Photonics</i>" (RISE) [Oct] • Optics and Photonics in Sweden (OPS) (KTH & PhotonicSweden) [Oct] • IEEE Nordic Congress (IEEE Section Sweden) [Nov] • Women in Photonics (RISE) [Dec] 	Workshop, co-organizer, financial sponsor Co-organizer, sponsor Technical sponsor, media partner Technical sponsor Co-organizer, technical/financial sponsor
2016	<ul style="list-style-type: none"> • Workshop on "Vertical Cavity Lasers" (Chalmers) [May] • "<i>Photonics and Electronics for School Children</i>" (RISE) [June] • Workshop on "Micro-structured Optical Fibers" (Ericsson) [Sept] • OPS-2016 (LiTH & PhotonicSweden): Best Poster Award [Nov] 	Co-organizer, technical/financial sponsor Co-organizer, technical sponsor Co-organizer, technical/financial sponsor Financial sponsor, media partner
2017	<ul style="list-style-type: none"> • Workshop on "Road to 5G and Photonics for 5G Mobile Networks" and "Women's Leadership in Science and Technology" at ECOC-2017 [Sept] • OPS-2017 (KTH & PhotonicSweden): Best Poster Award [Nov] • IEEE-PS Best PhD Thesis Award 2017 [Oct] • "<i>IEEE Nordic Nano-Photonics Workshop</i>" (Chalmers) 	Organizer, technical/financial sponsor (venue was Gothenburg, Sweden) Financial sponsor, media partner Organizer, financial sponsor Co-organizer, financial sponsor

History (3/4) – Organized/sponsored activities

Year	Organized/sponsored event	Remarks
2018	<ul style="list-style-type: none"> • Workshop on “<i>Micro-resonator Frequency Combs</i>” (Chalmers) [April] • “<i>Women Leaders in Science and Technology</i>”, QSIP-2018 (RISE) [June] • ICAIT-2018 (KTH): Best Paper/Poster Awards [Aug] • NOP-2018 (KTH, PhotonicSweden): Best Poster Award [Sept] • IEEE-PS Best PhD Thesis Award 2018 [Oct] • “<i>Swedish workshop on Li-Fi technologies</i>” (SEA, Ericsson, IEEE) [Dec] 	Co-organizer, IEEE DL Co-organizer, financial support IEEE Conference TCS, financial support Award organizer, financial sponsor Organizer, financial sponsor Co-organizer
2019	<ul style="list-style-type: none"> • Workshop on Information Optics (WIO-2019) (KTH/RISE) [July] • OptoPub in Sthlm (PhotonicSweden, IEEE) [Sept] • OPS-2019 (LTH, PhotonicSweden): Best Poster Award [Oct] • IEEE-PS Best PhD Theis Award 2019 [Oct] • “<i>Women in Innovation and Sustainability</i>”, NMDC-2019 (RISE) 	Co-organizer, financial support Co-organizer, financial support Award organizer, financial sponsor Organizer, financial sponsor Co-organizer, financial support
2020	<ul style="list-style-type: none"> • “<i>Women-in-STEM symposium</i>” (CSW-2020) (RISE) [Postponed] • OptoPub in Sthlm (PhotonicSweden, IEEE) [Postponed] • OPS-2020 (Umeå-U, PhotonicSweden): Best Poster Award [Postponed] • IEEE-PS Best PhD Thesis Award 2020 [Oct] • “<i>Sensors at Antarctica</i>”, seminar at KTH Space Center (RISE/KTH) [Nov] • “<i>Metamaterial in Photonics</i>”, webinar (Chalmers/RISE) [Dec] 	Co-organizer, financial support Co-organizer, financial support Award organizer, financial sponsor Organizer, financial sponsor Co-organizer, financial support Organizer

History (4/4) – Organized/sponsored activities

Year	Organized/sponsored event	Remarks
2021	<ul style="list-style-type: none"> • “Women-in-STEM symposium” (CSW-2021) (IEEE/RISE/KTH) [May] • ONDM-2021 (Chalmers): IEEE Best Student Paper Award [June/July] • OPS-2021 (Umeå-U, PhotonicSweden): Best Poster Award [Postponed] • OptoPub in Sthlm (PhotonicSweden, IEEE) [Nov] • Nominations for IEEE-PS Best PhD Thesis Award 2021 [Nov] 	Co-organizer, financial support Award organizer, financial sponsor Award organizer, financial sponsor Co-organizing, financial support Award organizer, financial support
2022	<ul style="list-style-type: none"> • “Computational Nanophotonics” (IEEE DL webinar) [Feb] • OPS-2022 (Umeå-U, PhotonicSweden): IEEE Best Poster Award [Oct] • Nominations for IEEE-PS Best PhD Thesis Award 2022 [Nov] • OptoPub in Sthlm (PhotonicSweden, IEEE) [Dec] 	Organizer Award organizer, financial sponsor Award organizer, financial sponsor Co-organizing, financial support
2023	<ul style="list-style-type: none"> • Women-in-STEM event at PGC-2023 (IEEE/KTH) [Aug] • OPS-2023 (KTH, PhotonicSweden): IEEE Best Poster Award [Oct] • Nominations for IEEE-PS Best PhD Thesis Award 2023 [Nov] • OptoPub in Sthlm (PhotonicSweden, IEEE) [planning] 	Organizer Award organizer, financial sponsor Award organizer, financial sponsor Co-organizing, financial support

IEEE PS Sweden – Board meeting

Contribution to IEEE-Photonics Society Newsletter

➤ Background

- This article has been requested by IEEE Photonics Society office
- The Newsletter reaches more than 100,000 professionals
- Published in the [April 2022 issue](#) of the IEEE-PS Newsletter

➤ Content

- General presentation of the Chapter
- Example of annual activities/awards organized by the Chapter
- The Chapter's sponsoring of WIP events
- Events showcasing photonics to the general public
- Involvement with local industry, institutes, and universities (mainly collaboration with PhotonicSweden and the sponsoring of OptoPubs)
- Presenting the Chapters quarterly Newsletter
- Contribute to dissemination of technical knowledge, as well as professional development through continuing education, *i.e.*, workshops, seminars, and webinars organized by the Chapter
- Honoring the good relationship with the staff of the IEEE Photonics Society

Membership

Chapter Best Practice: IEEE Photonics Society Sweden Chapter

The IEEE Photonics Society Sweden Chapter is a community of photonic professionals working in Sweden. The Chapter was founded in 2013 and has members all over Sweden. Although having only about 40 members we are very active. About 40% of the members are from the industry and the rest is from universities and research institutes. Half of the members are Senior grade or Fellows. However, the number of student members are few and therefore we have several activities that we hope will attract more students. The Chapter board has 8 members and 25% of them are women.

The Chapter organizes several annual activities. In autumn we invite the academia to nominate a recently graduated Ph.D. student for the annual "Best Ph.D. Thesis Award" in optics and photonics. Usually, we receive 5-8 nominations each year and the awards committee have a hard time to make a selection among these excellent theses. The monetary part of the award has recently been increased to 10,000 SEK (around \$1,100 USD) thanks to support from the IEEE Photonics Society Annual Chapter Grant. Since 2016 we are sponsoring the "IEEE Best Poster Award" at the annual Optics & Photonics in Sweden (OPS) conference, which is organized by PhotonicSweden. Since it has been very difficult to select only one best poster, we actually have three awards one being the best poster and two others are best poster distinctions. Unfortunately, due to the COVID-19 situation the conference has been postponed two times, but we are expecting it will come back in October this year. Occasionally, we are also sponsoring "Best Paper" and "Best Student Paper" awards at international conferences organized by Swedish universities. Last year we had a "Best Student Paper Award" at the 25th International Conference on Optical Network Design and Modelling (ONDM-2021) in Gothenburg, Sweden (unfortunately it was an online event).

Since 2015 we have frequently (almost every year) sponsored IEEE Women in Photonics events. The events are usually organized as a symposium with a number of invited international female speakers and being a part of a larger international conference in Sweden. The most recent WIP event was in May last year at the Compound Semiconductor Week (CSW-2021) in Stockholm. The symposium aimed to promote personal and professional growth for women in Science, Technology, Engineering and Mathematics (STEM) and to inspire young professionals and Ph.D. students to embrace the new technology leap in the STEM fields. The IEEE Women in Photonics symposium had eight distinguished international female speakers giving presentations at two sessions. The organizers were honored to have Ayodeji Coker, Science Director from the USA Office of Naval Research Global, as the chair of this symposium. This was sponsored by the IEEE Photonics Society Sweden Chapter through an IEEE Photonics Society Chapter Grant. The symposium was also a part of the UNESCO International Day of Light 2021. Most of these IEEE Women in Photonics



At the OptoPub event in Stockholm, Sweden, Dr. Rafael Puerta gave an introduction to IEEE and its Photonics Society with assistance by Prof. Qin Wang.

events has been organized by Prof. Qin Wang (KTH/RISE), a member of the Sweden Chapter board. For more info about the IEEE Women in Photonics symposium see the December issue of the IEEE Photonics Society Newsletter. Sometimes, we also sponsor events jointly with the Women in Engineering (WIE) Affinity Group Sweden.

Occasionally we have also organized outreach events showcasing photonics to the general public. A few examples are the "Introduce a Girl to Photonics" during the International Year of Light 2015 and "Photonics and Electronics for School Children" in 2016. Both in collaboration with RISE/Acreo (the Research Institute of Sweden).

Involvement with local industry, institutes, and universities is one of the goals for the Chapter and almost from the founding of the Chapter we have had a fruitful collaboration with PhotonicSweden. It is a technology-oriented association and photonics cluster that provides advocacy and networking for the Swedish photonics industry with a focus on Small- and Medium-size Enterprises (SMEs). An example of joint activities are the OptoPubs, which are a combination of a technical seminar and an "after work" event. These events are open to anyone in the photonics community. In November last year two members of the Sweden Chapter board provided the talks, including a presentation of the Chapter, as an opportunity to enroll new members. It was a hybrid event (both on-site and online), but after the presentations the on-site participants were invited to mingle with refreshments sponsored by IEEE Photonics Sweden Chapter. This event provided an opportunity to professional networking, as well as for the photonics veterans to meet old colleagues. These events are very much appreciated. Furthermore, the Chapter occasionally host a Swedish Photonics Leadership Forum that gather representatives of PhotonicSweden, Swedish Optical Society (SOS), and the Swedish branch

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Maybe a one-page presentation of each Chapter would be something for the Sweden Section Newsletter