IEEE Photonics Society
Sweden Chapter

IEEE Sweden Section
Chapter Chair Workshop 2021

29-Oct-2021 (rev. A)
Hybrid meeting (Linköping Univ. & MS Teams)

Arne Alping
Chapter Board Chair
IEEE Senior member
Member of the IEEE Sweden Section NOM Committee
Member of IEEE PS, MTT-S, ComSoc
Member of IEEE Standards Association
Member of PhotonicSweden, SOS, EOS, and Photonics21

Arne.Alping@ieee.org

Link to IEEE PS-Sweden web site
IEEE Photonics Society Sweden Chapter
Board members (8)

- Chair: Dr. Arne Alping, MWP tech consulting
- Vice Chair: Prof. Philippe Tassin, Chalmers Univ. of Tech.
- Secretary: Prof. László Veisz, Umeå University \(\text{NEW}\)
- Treasurer: Dr. Rafael Puerta, Ericsson Research
- Webmaster: Dr. Jochen Schröder, Chalmers Univ. of Tech.
- MDO: Dr. Xiaodan Pang, KTH
- WIP/WIE: Prof. Qin Wang, RISE/KTH
  Dr. Shagufta Naureen, IR-NOVA AB \(\text{NEW}\)
- PhD Thesis Award: Prof. Philippe Tassin, Chalmers Univ. of Tech.
- Newsletter Editor: Dr. Arne Alping, MWP tech consulting

\(\text{MDO} = \text{Member Development Officer}\)
\(\text{WIP/WIE} = \text{Women in Photonics/Engineering}\)
IEEE Photonics Society Sweden Chapter
Membership statistics (1/2)

- Membership statistics extracted from “IEEE OU Analytics” [2021-10-27]
- Currently the total number of members is 40 (-1 from last year, i.e., ~2% decrease)
- Gender: In total 5 female (13%) and 2 of them are Board members (i.e., ~25% of the Board)
- Senior members: 15 (±0 from last year; will promote Senior membership elevation)
- Student members: 2 student members (very few; >300 student members in Sweden)
IEEE Photonics Society Sweden Chapter
Membership statistics (2/2)

- Number of members: 40 (13% female)
- Number of Board members: 8 (25% female)
- 40% companies and 60% universities/institutes
IEEE Photonics Society Sweden Chapter
Mission related activities 2021

➢ Technology areas
  – Covering lasers, fiber-optics, bio-photonics, displays, solar energy conversion, LED illumination, ... 

➢ Recognitions (Award programs)
  – Annual Best PhD Thesis Awards
    – 2020: On-going review – 5 nominations; Award is 5,000 SEK 
    – 2021: Nomination period ends 30-Nov-2021; Award is 10,000 SEK 
  – Best Poster Awards (3x) at the Swedish annual OPS conference *POSTPONED to 2022*
  – Best Student Paper Award at ONDM-2021 conference; Award was 5,000 SEK

➢ Sponsoring Women-in-Photonics (WIP) events
  – WIP/WIE Symposium at the Compound Semiconductor Week (CSW-2021)

➢ 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

➢ Professional development
  – OptoPub (physical/virtual & mingle) & technical webinars (e.g., newly graduated PhDs)
IEEE Photonics Society Sweden Chapter
Newsletters

➢ Issuing schedule: Intention is once per quarter (so far 11 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
  - Presentation of recently defended PhDs 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
Best PhD Thesis Award

- Review Committee Chair:
  - Prof. Philippe Tassin, 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 **5,000 SEK** (2020) and **10,000 SEK** (2021)

- Review questions:
  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 2020** – 5 nominations (1x Lund, 4x Chalmers)
- **Best PhD Thesis Award 2021** – nomination period ends 30-Nov-2021
IEEE Photonics Society Sweden Chapter
WIP/WIE event @ CSW-2021

- **Compound Semiconductor Week (CSW) 2021**
- 9-13 May 2021, Stockholm, Sweden *(postponed from May-2020)*
- Organized by KTH and RISE
- Members of organization committee from IEEE-PS-Sweden Board:
  - Prof. Qin Wang, KTH/RISE

- As a part of the CSW-2021 **Prof. Qin Wang** (KTH/RISE/IEEE) was organizing a **Women-in-Photonics/Electronics symposium** with a number of invited international female speakers. Virtual event – 54 people attended.
- The event is sponsored by the **IEEE Photonics Society Sweden Chapter** *(32 kSEK through IEEE Photonics Society Chapter Grants)*
- The symposium was part of the **UNESCO International Day of Light (IDL)**
IEEE Photonics Society Sweden Chapter
OND-M-2021

- 25th Internat. Conf. on Optical Network Design and Modelling (ONDM 2021)
- Dates: 28-June – 1-July 2021
- Venue: Gothenburg, Sweden (virtual event)
- General Chairs: Paolo Monti and Marija Furdek (Chalmers)
- Members of the organization committee from IEEE-PS-Sweden:
  - Prof. Jiajia Chen (Chalmers), Prof. Paolo Monti (Chalmers), Prof. Lena Wosinska (Chalmers)

IEEE-PS Sweden Chapter sponsor an IEEE Best Student Paper Award through an IEEE Photonics Society Chapter Grant [5,000 SEK]

Award Committee:
- Chair: Dr. Xiaodan Pang, KTH/IEEE
- Members: Prof. Lena Wosinska, Chalmers, Sweden
  Prof. Slavisa Aleksic, HTL, Germany
  Prof. Carmen Mas Machuca, TU Munich, Germany
  Prof. Hiroshi Hasegawa, Nagoya University, Japan
  Dr. Aleksejs Udalcovs, Ericsson, Sweden
  Dr. Jelena Pesic, Nokia, France

Awardee: Sandip Das, Trinity College, Univ. of Dublin
(among 6 shortlisted contributions)
IEEE Photonics Society Sweden Chapter
OptoPub in Sthlm

- Event co-organized with PhotonicSweden (local host: Lennart BM Svensson)
- IEEE-PS-Sweden will sponsor the event with 5,000 SEK (partly funded by the IEEE-PS Annual Chapter Grant 2020)
- The event is planned to Thursday 4-Nov-2021
- Venue: Room Knuth at RISE, Electrum, Kista (Electrum Elevator B, Floor 6, meeting at RISE reception)
- Tentatively it will be a hybrid event (both on-site and virtual)
- IEEE-PS-Sweden is providing two speakers
- Tentative agenda
  17:30 Presentation of PhotonicSweden & IEEE-PS-Sweden
  17:40 Dr. Rafael Puerta [Ericsson Research]  
  "Analog fronthaul for cell-free MIMO networks"
  18:00 Dr. Xiaodan Pang [KTH]  
  "Ultrahigh-speed THz wireless transmissions enabled by photonics"
  18:20 Q&A
  18:30 OptoPub – mingle with refreshments sponsored by IEEE-PS-Sweden
IEEE Photonics Society Sweden Chapter
Optics & Photonics in Sweden (OPS-2022)

➢ Optics & Photonics in Sweden (OPS-2022)
➢ Dates: Oct 2022 [postponed from 2020 & 2021]
➢ Venue: Umeå, Sweden
➢ Organized by PhotonicSweden, SOS, and Umeå University
➢ General Chair: Prof. Ove Axner (Umeå Univ.)

➢ 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 Awardees being students

➢ Award Committee:
  Chair: Prof. László Veisz, Umeå University/IEEE,
  + TBD members (min. 3 people in total)
IEEE Photonics Society Sweden Chapter

Plans for 2022+

➢ Continue successful activities:
  - Select winner of 2021 Best PhD Thesis Award & nomination to the 2022 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
    - Optical & Photonics in Sweden (OPS-2021)
  - 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
  - For example: (1) IEEE Women in Engineering (WIE) Affinity Group Sweden, (2) IEEE MTT (microwave photonics), (3) IEEE COM (optical networks)
Additional slides
IEEE Photonics Society Sweden Chapter
UNESCO – International Day of Light (16-May-2021)

➢ Overview:
  – The International Day of Light is a global initiative that provides an annual focal point for the continued appreciation of light and the role it plays in science, culture and art, education, and sustainable development, and in fields as diverse as medicine, communications, and energy.

➢ Swedish Nodes:
  – Ann-Marie Pendrill, National Resource Centre for Physics Education
  – Petra Bindig, PhotonicSweden

➢ Events in Sweden:
  – WIP/WIE Symposium during CSW-2021 [10-May]
  – Webinar about circadian lighting (in Swedish) [19-May]
IEEE Photonics Society Sweden Chapter
History (1/3) – 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 – 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”
# IEEE Photonics Society Sweden Chapter
## History (2/3) – Organized/sponsored activities

<table>
<thead>
<tr>
<th>Year</th>
<th>Organized/sponsored event</th>
<th>Remarks</th>
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| 2014 | • 18th Conference on Optical Network Design and Modelling (KTH) [May]  
      • "Transformation Optics“ (Chalmers) [Nov] | Technical sponsor  
                                             Seminar, Co-organizer |
| 2015 | • “Frontiers and Challenges in Optical Communication” (Chalmers) [Sept]  
      • “Introduce a Girl to Photonics” (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 | • Workshop on “Vertical Cavity Lasers” (Chalmers) [May]  
      • “Photonics and Electronics for School Children” (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 | • 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 Nordic Nano-Photonics Workshop” (Chalmers) | Organizer, technical/financial sponsor  
                                                                  (venue was Gothenburg, Sweden)  
                                                                  Financial sponsor, media partner  
                                                                  Co-organizer, financial sponsor |
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| **2018** | • Workshop on “Micro-resonator Frequency Combs” (Chalmers) [April]  
• “Women Leaders in Science and Technology”, QSIP-2018 (RISE) [June]  
• ICAIT-2018 (KTH): Best Paper/Poster Awards [Aug]  
• NOP-2018 (KTH, PhotonicSweden): Best Poster Award [Sept]  
• “Swedish workshop on Li-Fi technologies” (SEA, Ericsson, IEEE) [Dec] | Co-organizer, IEEE DL  
Co-organizer, financial support  
IEEE Conference TCS, financial support  
Award organizer, financial sponsor  
Co-organizer |
| **2019** | • Workshop on Information Optics (WIO-2019) (KTH/RISE) [July]  
• OptoPub in Sthlm (PhotonicSweden, IEEE) [Sept]  
• OPS-2019 (LTH, PhotonicSweden): Best Poster Award [Oct]  
• “Women in Innovation and Sustainability”, NMDC-2019 (RISE) | Co-organizer, financial support  
Co-organizer, financial support  
Award organizer, financial sponsor  
Co-organizer, financial support |
| **2020** | • “Women-in-STEM symposium” (CSW-2020) (RISE) [Postponed]  
• OptoPub in Sthlm (PhotonicSweden, IEEE) [Postponed]  
• OPS-2020 (Umeå-U, PhotonicSweden): Best Poster Award [Postponed]  
• “Sensors at Antarctica”, seminar at KTH Space Center (RISE/KTH) [Nov]  
• “Metamaterial in Photonics”, webinar (Chalmers/RISE) [Dec] | Co-organizer, financial support  
Co-organizer, financial support  
Award organizer, financial sponsor  
Co-organizer, financial support  
Organizer |
| **2021** | • “WIP/WIE symposium” (CSW-2021) (IEEE/RISE/KTH) [May]  
• ONDM-2021 (Chalmers): Best Student Paper Award [June/July]  
• OPS-2021 (Umeå-U, PhotonicSweden): Best Poster Award [Postponed]  
• OptoPub in Sthlm (PhotonicSweden, IEEE) [Nov] | Co-organizer, financial support  
Award organizer, financial sponsor  
Award organizer, financial sponsor  
Co-organizing, financial support |