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Editorial

In the recent IEEE Sweden Section AGM, the IEEE members have approved activities for the past board and elected a new board. We want to use this opportunity to thank the efforts from the past board and the outgoing members.

Though there seems to be a comeback of Covid in some parts of the world, the situation in Sweden is quite stable and Covid is no longer classified as a dangerous sickness. I foresee there will be more activities and more physical events from IEEE Sweden Section and its subordinate chapters and branches.

On this newsletter, we mainly present the details from the AGM meeting in March and the new elected board members. We also have news from some chapters. You can contact me (first.last@ieee.org) if you have news from your section/branch to publish.

Dr. Qinghua Wang, Editor
Rose Mary, Assistant Editor

A message to IEEE Sweden Section members

Dear IEEE Member,

The Annual General Member's meeting took place on March 24th in Linköping in a hybrid format. The materials are available on the Section Website <https://r8.ieee.org/sweden/archive/>

The AGM was preceded by a democratic election where Section members could vote for Board candidates chosen by the Nomination Committee or propose other names.

It is great to see that the current board received full support to continue for 2022. The secretary, information officer and membership development positions were re-newed.

R8 area meeting is planned for April 1-3rd in Warsaw, Poland as a hybrid event with as many as possible on-site participants.

The Section Board met in January and February. The new Fiscal Year 2022 board has scheduled the monthly meetings. We are always welcoming new volunteers to join the Board as stand-by members to learn the operations for future posts.

It is nice to know that now IEEE offers its members complimentary access to Overleaf online editing tool. Check the details here

<https://www.overleaf.com/blog/263-overleaf-collaborates-with-ieee>

Best wishes. Stay safe.



Prof. Andrei Gurtov
Chair IEEE Sweden Section
gurtov@ieee.org

IEEE Sweden Section Annual General Meeting (AGM) 2022

Prof. Andrei Gurtov spearheaded AGM 2022. The focus areas were Annual report FY 2021 and reorganization of the board members. Nominating committee (NomCom) presented proposal and vote counting was done using vtools.

Suleman Khan and Kristian Sandahl were elected as Chair of meeting. Umar Zakir Abdul Hamid was elected as meeting secretary. The meeting secretary smoothly navigated the process (including counting of the votes) with the assistance of Chair of meeting.

AGM 2022 included ratification of the summons and agenda. The summons were already published on the web 4 weeks ahead of the meeting; summons and agenda were accepted by the participants during AGM 2022. Although formal session, AGM 2022 gave platform for first-timers, student members and observers to actively participate and witness the highly competent dynamics.

The much-anticipated Annual Report for FY 2021 was presented. It also included adoption of profit and loss account, balance sheet and Auditor`s report.

AGM elected a nominating committee (NomCom); NomCom was managed by Havel Khadem with help of Samarth Deo and Arne Alping. NomCom designed a democratic process for reorganization.

The elected board members of IEEE Sweden Board for FY 2022 are:

- ❖ Andrei Gurtov, Chair
- ❖ Viacheslav Izosimov, Vice Chair
- ❖ Umar Zakir Abdul Hamid, Secretary
- ❖ Ming Xiao, Membership Development Officer
- ❖ Biswajit Singh, Industrial Relations Officer
- ❖ Christian Bohm, Treasurer
- ❖ Tatiana Andersson, Auditor
- ❖ Qinghua Wang, Information Officer and Newsletter Editor
- ❖ Gerard Duff, Student Activities Chair

A remarkable value-add during AGM 2022 was the inspiring technical lecture "Is there any room for cyber-physical systems in industrial automation?" by IEEE Fellow Prof. Valeriy Vyatkin.

Message from Vice-Chair, IEEE Sweden

Dr. Viacheslav Izosimov (PhD from Linköpings Universitet and Docent from KTH), currently working at Semcon Sweden was re-elected as Vice Chair for the Section.

First, Viacheslav would like to continue the work in increasing attractiveness of IEEE for industry and individuals working for industry. In the opportunities that arise after end of the Pandemic. Physical or hybrid meetings can contribute to networking and creating mutual trust among the individuals in academy and industry meeting in person, and students finding new job opportunities.

Second, Swedish industry need to welcome a new wave of refugees, creating employment opportunities for them in Sweden. In previous waves, connections to VINNOVA and academic institutions were crucial to provide education and funding for adapting the refugees to Swedish job market. Similar, today, involving multiple actors, including IEEE Sweden, should contribute to securing networking and availability of job opportunities to refugees from Ukraine in short and long terms. Both entrepreneurial and educational events need to be coorganized for mutual benefits of industry and new arrivers, Engineering for Humanity.

Third, Sweden Section need to look for possibilities to enable student branches at the universities. More than 10 universities exist in Sweden, while only 3 student branches are currently active, in Linköping Universitet, KTH and Chalmers. Also, Högskolor can also start their student branches, e.g. Blekinge Högskolan, Dalarna, Mälardalen. Being part of IEEE will strengthen position of each university and attractiveness for international students, as well as will make Sweden more visible as country of engineering disciplines. Currently, students starting the branches will be eligible to get free IEEE membership sponsored by the Section. That action from Section together with administrative support should facilitate new student branches.

Message from membership officer, IEEE Sweden

Dr. Ming Xiao (scholar from KTH with 280 publications in the areas of communications and AI, IEEE Senior Member since 2011) has been elected as the new board member for membership development. The following is his preliminary plan for coming year.

1. Sponsor member to upgrade to senior grade, either through section or help to find suitable individual references.
2. Strengthen the activities at student branch, first re-connect to IEEE KTH student branch and then sponsor some events to increase visibility of IEEE at student branch.
3. Looking for industry events within Sweden and co-sponsor and increase visibility (e.g., present IEEE).

Message from secretary, IEEE Sweden

Dear IEEE Member,

It is a pleasure and honour for me to be appointed as the new secretary of the IEEE Sweden Section. Thereby, it would be sensible for me to briefly introduce myself. Below is my biodata in *italic*.

A PhD holder, Umar Zakir Abdul Hamid has been working in the future mobility (connected and autonomous vehicle) field since 2014 with various teams in different countries and continents. Previously, he led a team of 12 engineers (of 10 different nationalities) working in the Autonomous Vehicle Software Product Development with Sensible 4, Finland. Umar is one of the recipients of the Finnish Engineering Award 2020 for his contributions to the development of all-weather autonomous driving solutions with the said firm. With more than 30 scientific publications as an author and editor under his belt, Umar actively participates in global automotive standardization efforts where he is a Secretary for the Society Automotive Engineers (SAE) Committee. Since the end of Summer 2021, Umar has been working as the Lead of Strategic Planning for CEVT AB in Sweden.

I wish to learn more from fellow colleagues and networks in IEEE Sweden, as well as hope that my addition will bring fresh insights to IEEE Sweden activities based on my previous diverse experience in industry and academia. In 2022, perhaps IEEE Sweden Section and Chapters can also organize activities like career guidance in emerging technologies for undergraduates and postgraduates, or even events that will bridge the gap between academia and industry, highlighting the challenge that we are currently facing in the context of the Fourth Industrial Revolution. I am happy to participate in the organization of such events.

Thanks and have a great year ahead!

Umar Zakir Abdul Hamid, PhD
Lead of Strategic Planning, CEVT AB, Gothenburg
Secretary of IEEE Sweden

IEEE recognizes Dr Celestine Iwendi as Brand Ambassador

Our past newsletter editor at the Sweden Section is now made an IEEE Brand Ambassador as a recognition of his services in IEEE Sweden, China and helping to form two IEEE student branches, one in Changsha China and the other in Bolton UK.



IEEE Computer Society Sweden Chapter

The computer chapter had the yearly co-arranged workshop on Model-Based Cyber-Physical Product Development (MODPROD) 1-2 February 2022. The theme this year was Model-based engineering for remote collaboration. We had three keynotes on modelling in distance work, digital twins of factories, and sustainable systems engineering. For more details see:

<https://modprodblog.wordpress.com/>

Prof. Kristian Sandahl, Chapter Chair

IEEE Photonics Society (PS) Sweden Chapter

On 17-Feb-2022 IEEE-PS Sweden Chapter organized a webinar with the invited IEEE-PS Distinguished Lecturer Prof. Salah Obayya (Zewail City of Science and Technology, Egypt) giving a talk on “**Computational Nanophotonics: Basics, Challenges and Future Perspectives**”. More info. On [IEEE DL webinar – Computational Nanophotonics : vTools Events](#)

In 2017, **Prof. Victor Torres Company** at the [Ultrafast Photonics Laboratory](#), MC2, Chalmers, received a prestigious 5-year Consolidator Grant from the European Research Council (ERC) for his research on developing high-speed laser technology. Now, the ERC has granted him a Proof-of-Concept grant with the aim to bring his research closer to the market. Victor Torres Company's research regards the developing of a "chip scale frequency comb", a special type of ultra-fast high-precision laser with a wide range of different application areas.

Prof. Philippe Tassin is the Chair of the 2021 Best PhD Thesis Award Committee, which is currently reviewing 8 nominated theses.

On 4-Feb-2022 **Korbinian Mühlberger** (Laser Physics, Applied Physics, KTH) defended his PhD thesis on “*Temperature measurements on silicon core fibers during CO₂ laser processing*”. The public defense was performed as a hybrid event (on-site and on-line) with Prof. Valerio Pruneri, ICFO, Spain, as faculty opponent. Assoc. Prof. Michael Fokine, Laser Physics, was the supervisor.

On 25-Feb-2022 **Hui Chen** (Wallenberg Wood Science Center, KTH) defended his PhD thesis on “*Light Scattering Effects in Transparent Wood Biocomposites*”. The faculty opponent was Prof. Mikael Sjö Dahl, and the supervisors were Prof. Lars Berglund (Wallenberg Wood Science Center, KTH), Ass. Prof. Ilya Sychugov (Photonics, Applied Physics, KTH) and Docent Max Yan (Photonics, Applied Physics, KTH).

On 31-March-2022 **Dr. Ali Elshaari** (Quantum Nanophotonics Group, Applied Physics, KTH) had a docent lecture on “*Integrated Quantum Photonic Circuits*”

Dr. Arne Alping, Chapter Chair

IEEE Reliability Society, Joint Sweden and Norway Chapter

Membership fees have been reduced this year for joining IEEE Reliability Society! If you are already an IEEE member, you will enjoy the recently reduced RS membership rates. Here is the link:

<https://www.ieee.org/membership-catalog/productdetail/showProductDetailPage.html?product=MEMRL007>

Welcome to follow 2022 IEEE International Conference on Prognostics and Health Management (ICPHM 2022), Detroit, Michigan, June 6-8, 2022; which is organized by IEEE RS. Here is the link: [Welcome to PHM Conf 2022](#)

We have started our linkedin Webpage, and please try to connect and introduce it to people who may also need the new platform: <https://www.linkedin.com/company/ieee-sweden-and-norway-reliability-society-joint-section-chapter/?viewAsMember=true>

Please help us to introduce this new Chapter to anyone who may be interested (and other IEEE members can add RS when other IEEE members renew their membership). Please forward this link to others. <https://rs.ieee.org/membership.html>

Dr. Janet Lin, Chapter Chair

Upcoming events



Joint Section Chapter

SWEDEN & NORWAY

WEBINAR

MAY 16, 2022; 13:00 PM -14:00 PM (UTC+2)

ZOOM MEETING ID: 902 728 5345; PASSWORD: 167528

Agenda

- 13:00 - 13:05 Welcome & Photo session
- 13:05 - 13:35 Talk 1 Prof. Sanjay K. Khattri (Professor at Western Norway University of Applied Sciences, Haugesund, Norway): Optimization of tunnel fire emergency systems through computational fluid dynamics
- 13:35 - 13:55 Talk 2 Dr. Frank (Feng-Bin) Sun (Technical Lead and Principal Manager of Reliability Engineering at Tesla Inc.): Introduction to Fractional Failure and Its Application in Reliability Engineering
- 13:55 - 14:00 End
- More questions after 14:00

THIS EVENT IS FREE AND WELCOME TO JOIN US BY ZOOM (ID: 902 728 5345; PASSWORD: 167528) !
FOR ANY QUESTION PLEASE CONTACT: Janet Lin (janet.lin@ltu.se) or Yiliu Liu (yiliu.liu@ntnu.no)



OPS-2022: The **Optics and Photonics in Sweden** (OPS-2021) conference is organized by IEEE Photonic-Sweden and Umeå University. The venue is Umeå University with the general chair, Prof. Ove Axner, Department of Physics, Umeå University on 5-October to the 6- 2022. IEEE Photonics Society Sweden Chapter will sponsor the Best Paper and Best Poster Awards.

Since 2016 the IEEE-PS Sweden Chapter has sponsored the **Best Poster Awards** at OPS. This year it will be three (3) Awards: 1x Best Poster Award (3 000 SEK) and 2x Best Poster Distinctions (1 000 SEK each). The Chair of the Awards Committee is Prof. László Veisz, Umeå University

Technical lecture "Is there any room for cyber-physical systems in industrial automation?" by IEEE Fellow Prof. Valeriy Vyatkin

The term cyber-physical systems has invaded the domain of industrial automation about a decade ago. In this talk, we will discuss, to which extent the term brings any essential meaning, and in which is just another label for the things known for long time. The discussion will be put in the context of the recent research work of the speaker.

The presentation slides are now available on <https://r8.ieee.org/sweden/archive/>



Bio: Research interests of Valeriy Vyatkin include various aspects of information technology application in industrial automation, such as and industrial informatics; software engineering for industrial automation systems; artificial intelligence, distributed architectures and multi-agent systems applied in various industry sectors, including smart grid, material handling, building management systems, data centres and reconfigurable manufacturing. Valeriy Vyatkin received the Candidate of Science (Ph.D.) degree in applied computer science from the Taganrog Radio Engineering Institute (TREI), Russia, in 1992, the Dr. Eng. degree in electrical engineering from Nagoya Institute of Technology, Japan in 1999, the Dr. Sc. (Eng.) degree in information and control systems in 1999 from TREI, and Habilitation degree from the Ministry of Science and Technology of Sachsen-Anhalt, Germany in 2002. He works on joint appointment as Full Professor of IT in Industrial Automation in Finland (Aalto University) and Chaired Professor of Dependable Communications and Computations in Sweden (Luleå University of Technology). He is also co-director of the international research laboratory of Computer Technologies at ITMO University, St. Petersburg, Russia. Previously he has been with Cambridge University, U.K., as a visiting scholar, (2012-2013), and on permanent academic appointments with The University of Auckland, New Zealand (2005-2013), Martin Luther University of Halle-Wittenberg, Germany, (1999-2005) and with Taganrog State University of Radio Engineering (1991-2002), and postdoc at Nagoya Institute of Technology, Japan (1994-1999). Prof. Vyatkin has been active volunteer of IEEE IES for the last 16 years: in 2003 he co-founded OONEIDA initiative as a joint

project of IES and Intelligent Manufacturing Systems international consortium. Prof. Vyatkin organized 16 special sessions and served 22 times as track chair at IES conferences. He has been special sessions chair of 4 major IES conferences, as well as tutorials chair and publicity chair. In 2019 Prof. Vyatkin successfully organized INDIN'19 as general chair. He co-organised 8 special sections at IEEE Transactions on Industrial Informatics and one in IEEE Transactions on Industrial Electronics as a guest editor. Since 2010 he serves as an Associate Editor of IEEE Transactions on Industrial Informatics. Valeriy is author of over 380 scientific publications, 53 of which are in IEEE Transactions and journals. 19 times Prof. Vyatkin was invited to give keynote presentations at international conferences, congresses and workshops. His H-index is 43 (Google Scholar), 34 (Scopus). In 2012 he has been awarded Andrew P. Sage award for best transactions paper. Prof. Vyatkin supervised to completion 17 Ph.D. students. Currently he supervises 11 Ph.D. students. He has been the principal investigator of many research projects funded by different agencies in EU, Japan, USA, Russia, New Zealand, Germany, Sweden and Finland. In 2016-2019 Valeriy has been the chair of IES technical committee on Industrial Informatics. During two terms of service he succeeded in attracting to the TC of 95 new active volunteers, which resulted in boosting the TC performance in IES conferences and journals. In 2020-2021 he served as a representative of the ICT cluster of technical committees in AdCom of IES. He has been also an active member of TC Standards, TC Industrial Agents and TC on Cyber-Physical Systems. Currently Valeriy serves as Vice-President for Technical Activities of Industrial Electronics Society of IEEE.

Sites for Success:

IEEEXplore: <http://ieeexplore.ieee.org>

IEEE ResumeLab http://www.ieee.org/membership_services/membership/resumelab

IEEE Job Site <https://jobs.ieee.org>

IEEE Student scholarships, grants and fellowships:

<https://www.ieee.org/membership/students/scholarships-grants-and-fellowships.html>

IEEE Membership

<https://www.ieee.org/membership/index.html>

IEEE Women in Engineering

<https://www.facebook.com/ieewomeninengineering>

IEEE University Partnership Program:

<https://www.facebook.com/ieee.upp>

IEEE Member and Geographic Activities Operations Manual

<https://mga.ieee.org/board-committees/operations-manual>