

Switzerland Section

Maria-Alexandra Paun

List the activities carried out to foster relations with Industry and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help your Section in your industry-related activities?

1. Luca Dalessandro, Chair of Swiss Industrial Electronics Society Chapter (IES) For your information, as regards the annual European PhD School event and most probably also the IES Chapter event /annual workshop there will be in future most probably virtual events.

2. Heinz Wipf, Chair of Swiss Aerospace and Electronic Systems Society Chapter (AESS) The Swiss Institute of Navigation ION-CH, in collaboration with IEEE AES and the Time and Frequency Laboratory of the University of Neuchâtel and CSEM, organized the following seminar: Precision Timing in Navigation on September 8, 2020 in Neuchâtel. Neuchâtel has a long and illustrious role in the history of timekeeping and chronometry and represents the ideal venue for this inaugural edition of a series of seminars dedicated to the PNT community. Speakers from academia, associations and industry contributed to the event. For example, there were present representatives from: Université de Neuchâtel, CSEM, Syderal, SpectraTime / Orolia Switzerland, Oscilloquartz SA and Association EspaceTemps.

3. Heinz Mathis, Chair of Swiss Industrial Relations For 2020, we had to change our yearly event (autumn seminar) organized by Prof. Heinz Mathis from FAEL CH into an online event, for a description of which can be found here. This event was partly sponsored by IEEE Switzerland Section. Blockchains are all about hard-earned cryptocurrencies, all about Bitcoin. But they are much more than that. What exactly the basics of decentralized security and distributed trust entail and which typical applications are possible in addition to electronic currencies will be explained on this evening. Prof. Dr. Roger Wattenhofer from ETH Zurich will explain the basics to us before two other experts present their areas of application to us. Other speakers from industry delivered the following talks: "MODsense - Tracking and Monitoring with Blockchain" by Dr. Thomas Bocek, Modum LivingPackets and "THE BOX - IoT and Blockchain in a smart, reusable packaging box for the future of shipping" by Niklas Leck, LivingPackets.

4. Mohammad Azadifar, Chair of Swiss Joint Chapter on Antennas and Propagation, Electromagnetic Compatibility and Microwave Technology and Techniques (AP/EC/MTT)

They have organized the following event titled "Protecting Power, Signal, and Data Lines from Adverse EMI/EMP Effects". On Wednesday, October 14, the EMC/AP/MTT chapter Switzerland, Germany, Los Angeles and the EMC Laboratory of EPFL organized an IEEE EMC webinar. More than 100 attendees and 200 were registered for this webinar worldwide. The first speaker was Dr. Sergio Longoria, talked about various aspects of EMP, HEMP, and IEMI. He further discussed about the protection and mitigation strategies against those threats. The second speaker was Dr. Dave Giri talked about the R, L, C model of components for both HV and HF regime and explained the challenges to design simultaneously for both HV and LV. It is well known that high-frequencies and high-voltages impose conflicting requirements. High-voltage applications require increased inter-electrode distances, while high-frequency operation requires dimensions to be small. If we consider the feed point of an antenna, high-voltage argues for more space, while high-frequencies require smaller spaces. Furthermore, we require R, L and C elements for many HPE applications such as elements of pulse-shaping networks and terminators for transmission lines. They are also needed in the design of high-performance EMC filters. In this presentation, we discuss how R, L and C elements can be built for both high-voltage and high-frequency applications. More than 132 attended this webinar worldwide.

List the activities addressed to Students and/or Young Professionals and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your students and YP-related activities?

An important event that our Section organized this year is described in the following.

1. IEEE Day 2020 celebration After the success of its first edition in October 2019 at Alessandro Volta Fondazione in Como Italy, the tradition was continued for the second year with joint event for celebrating IEEE Day between Italy and Switzerland Section. On this occasion Italy and Switzerland Section together with organisation unit prepared for you a program bridging the past and the future. The session was brought up by the Life members, discussing semiconductor technology leverage over 60 years span. Unfortunately, due to coronavirus pandemic, this event took place this year online via Zoom platform on 6th of October 2020. There was a great interest from the audience for this event, with approximately 200 people registered. More details can be found at <https://events.vtools.ieee.org/m/239910>.

Welcoming was done by Chairs of Switzerland and Italy section followed by interesting programs on: 1) The microchip revolution with guests Luc-Olivier Bauer and Marshall Wilder authors of the book "The Microchip Revolution: A brief history" and Bruno Murari of ST-Microelectronics with contribution on BCD technology entitled Multiple Silicon Technologies on a Chip, and 2) IEEE Student Branch & Young Professional Pitch: 5 Minutes For My Research (8 videos by Italy and Switzerland sections Student and Young Professionals where they pitched their research topic), Bridging the past and the future. The best presenter was voted by the audience and a 100 EUR/CHF prize was offered from the section where the winner belonged to. A video for the first session on Microchips of our event was recorded and was submitted to IEEE.tv, which can be found at the link: <https://ieeetv.ieee.org/video/joint-ieee-day-celebration-italy-and-switzerland-section-2020-the-microchip-revolution>

As a follow-up, Bernardo Tellini, Chair of Italy section has shared with us their best practices, such as an initiative promoted by their Young Professionals Affinity Group in Italy who are organizing a virtual Meet Up next to the workshop/conference that they are organizing and kicking-off for the first time, with the topic on artificial intelligence.

List the activities carried out to retain and recruit members and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your membership-related activities?

Obviously face-to-face meetings were no longer possible as often as we used to do them in the past due to coronavirus crisis. Therefore, membership recruitment suffered by the lack of in person meetings and the chance to have a physical booth at

various events. However, IEEE Switzerland Section adapted quickly and well to do online meetings/events and still managed to organize a few events in person with all protective measures in place.

On June 22nd 2020, our section held its first in 60 years of existence Annual General Assembly AG online via IEEE-provided WebEx platform. A total of 16 events were recorded in vTools for Switzerland section in March-October 2020 (3 were fully prepared but had to be sadly cancelled due to ongoing coronavirus pandemic).

More details can be found at the link: https://events.vtools.ieee.org/events/search?utf8=%E2%9C%93&_sub=true&q=&ou=R80007+-+Switzerland+Section&d=Recent&commit=Search

List the activities intended to support chapters, affinity groups, and student branches and the results obtained. List the related initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your support to chapters, affinity groups, and student branches?

IEEE Switzerland Section fully supports its chapters, affinity groups, student branches, technical activities; humanitarian activities, by offering personal advice and financial contributions to their events. We have at least 5 different meetings of ExCom every year and we communicate via e-mail and phone in between these meetings. Every request for financial sponsorship of different events is analyzed by ExCom.

We are actively looking for new volunteers to join us in ExCom and in this way we were able to find most recently a new Webmaster. Recently, in April 2020, after trying for a few years, we managed to establish our Swiss SIGHT group with Ms. Ning Wang as Chair, an active volunteer.

We are confident that we will continue to organize and propose interesting events to our membership, owing to a dedicated team of volunteers within our ExCom.

Challenges (with a focus on what support is required from Region 8)

We would like Region 8 to support sections with interesting events and ideas.