

Section Name

Reporting Officer Name

Italy Section Sergio Rapuano

Section Vitality

Please provide information about the date of last Section elections, date of next elections, and do you have the practice of Vice-Chair becoming the next Section Chair. Section ExCom meetings (list them and provide brief summary if appropriate). List the activities carried out to retain and recruit members and the results obtained.

The last Section elections have been held on February 10-13 2021 and the new officers took up service on the 15th, just after the Section ExCo meeting. The current Vice Chair and Treasurer are new officers. The current Section Chair was previously the Treasurer for two terms. The current Secretary has been re-elected for his second term. Each term is two years long. Each officer can be re-elected only once, with a maximum of 4 years in the same role, except the Treasurer, that has no time limitations due to the specificity of the role. Usually the Chair serves for one term only. An ad-hoc committee collects the applications of any Section member that volunteers to serve as officer and forms the slate of candidates at each election. Usually, not mandatorily, the Vice-Chair follows nearly the Chair during his/her service and then applies for the Chair position.

ExCo meetings in 2020-2021 and related most important topics:

- January 28, 2020: approval of the 2020 Section budget, approval of the new Section conferences sponsorship regulation;
- May 19, 2020: approval of the 2019 final balance;
- October 12, 2020: appointment of the Section Nominating Committee;
- February 15, 2021: nomination of the ExCo Committees for the period 2021-2022, approval of the 2021 Section budget.

The History activity committee is working very well. In particular the Italy Section achieved 4 more Milestones in 2020. As a consequence of COVID, Milestone celebrations in program for 2020 have been postponed to the very beginning of 2021. The Milestone program for 2021 is very reach:

- 1) Milestone for the research contribution of Galileo Ferraris together with the Politecnico of Torino: held on 21 January 2021;
- 2) Milestone for the research contribution relevant to the Gravitational Wave Antenna with VIRGO in conjunction with the LIGO projects of the USA: held on 03 February 2021;
- 3) Milestone for the research contribution relevant to STMicroelectronics Multiple Silicon Technologies on a Chip: planned on 18 May 2021;
- 4) Milestone for the research contribution of Giovanni Giorgi together with the University of Roma La Sapienza: date to be defined.

In particular, for Milestone 2 a unique virtual global event has been held, involving the three laboratories Italy and USA, and represented a great opportunity for the whole IEEE, being the first joint celebration of three Milestones, one given to Italy.

The Section has a very rich Award Program (https://italy.ieeer8.org/awards/):

The Honorary Award 2020 was assigned to Federico Capasso "for outstanding and pioneering contributions to the physics of quantum confined photonic systems and their applications, ranging from bandstructure engineering and the invention of Quantum Cascade Lasers to the physics and engineering of metasurfaces". The Honorary Award 2021 will be assigned before September 2021.

Among the other awards the Section assigned: Distinguished Service Award, Awards for the Italian Chapters, Awards for Students Branches, Awards for YPs, Award for Industry, Awards sponsored by Industry. All the awards are visible at the page: https://italy.ieeer8.org/awards/

Italy Section continues to strengthen its relationship with Italian Technical Associations AEIT, and AICA, with which a MOU was signed.

Region 8

The 116th IEEE Region 8 Committee Meeting

Italy Section strongly improved the website in order to further and better inform the members of the recent news about the Section, the Chapters, the Section Committees, the Student Branches, the Affinity Groups, and other activities. See Section website for all the information (https://italy.ieeer8.org/).

The new YP officers have been elected and took up service on 1 November 2020. A renewed YP AG has been created with delegates from the chapters and Industry, in order to support the transition of ex Student and Graduate Student Members towards new professional experiences in the Section.

Students and graduate students are around nine hundred members in the IEEE Italy Section, representing an important basis establishing contact with the new generations. Due to COVID-19 restrictions, the increasing trend in the number of Student Members registered in the last years was not found in 2020. The Student Branches play a very important role to attract new Student Members. The Section promotes and supports their initiative as well as their interaction with the Young Professionals.

Most of OUs replaced in presence events with virtual, online, events, thus keeping contact with the IEEE members interested in the respective areas.

The 5th IEEE Italy Section meeting of Student Branches was scheduled during IEEE RTSI 2020 in Naples and has been postponed to 2021 with the conference (http://rtsi2021.ieeesezioneitalia.it/). The SB chairs receive the financial support from the Section to participate in the meeting.

Tutorials and plenary events are free, this was done with the aims of attracting Student participation at RTSI 2021.

In collaboration with the University of Padua and the technical co-sponsorship of five Italian Chapters, the IEEE Italy Section is organizing the Summer School of Information Engineering that will be held in Brixen, in July 16-18 2021. The technical program is available at http://ssie.dei.unipd.it/technical-program-2021/.

In collaboration with ABB and sponsored by ABB, it was defined the ABB award "New Challenges for Energy and Industry" for the years 2020, 2021 and 2022. The award ceremony 2020 has been held virtually in September. The award ceremony 2021 will be held during the gala dinner of RTSI 2021 or virtually, depending on the conference.

During Melecon 2020 a series of Tutorials was organized and freely accessible to all University students. A series of Tutorials has been scheduled at RTSI 2021 and participation is free, this with the aim to attract student participation and let them knowing the activities of IEEE.

In 2020 we celebrated the IEEE Day in conjunction with the IEEE Switzerland Section online. We had a joint meeting of the LM and History Groups from both the Sections on the theme "The microchip revolution" that involved also a multinational corporation. The Students and YP from both the Sections had a joint meeting with a research pitch competition. The format joining past and future is aimed at creating the best conditions for fruitful exchanges of ideas.

The Section is fully supporting the Membership Development Committee to form a working group in order to better diffuse the knowledge of the possibility offered by joining IEEE. This in order to enforce the number of volunteers dedicated to this key activity.

IEEE is also advertised during the many conferences (at the reception desk and in a special corner dedicated to IEEE, gadgets and other support material of IEEE was distributed). In particular, this is done to all the events organized by the Section. Italy is at the first place in terms of number of IEEE conferences and this represents a strong point by the Italy Section. Due to this particular situation, we interact with IEEE to receive every Monday an update of the conferences scheduled in Italy in order to possibly better choice possible dates or locations of future events.

Students

List of Student Branches (SB) in your Section, the newly formed or dissolved SBs, if any since the last meeting reporting (Oct 2020). List the student meetings held and Section activities addressed to Students and Young Professionals.

Through the Student Activities and Educational Committee, coordinated by Prof. Paolo Maresca, the Section is carrying on an important effort aimed at supporting, and therefore increasing, the SBs activities. In particular, we are trying to help them to establish and enforce their network with other SBs as well as with YP AG and Chapters. In particular, we are trying to involve past-chairs of SBs in a working group of the Italy Section YP AG, with the aims of increasing the cross-activities between SBs and the YP AG, giving major continuity to the contribution of our young members, and increasing also the activities of the YP AG.

We have 21 SBs and 6 SB Chapter and 3 SB WIE AGs. No SB or SB Chapter has been dissolved recently.



In collaboration with Industry, the Section grants various awards for MSc degree and for PhD degree students. This year ABB granted the awards for 2021 and 2022, and we are confident to receive other contributions from Industry in favor of our IEEE Student Members.

The 6th October 2020, we celebrated the IEEE Day by a virtual meeting. The event was organized and promoted in conjunction with the IEEE Switzerland Section. Two sessions were promoted: 1) "The microchip revolution" organized by the LMs AG of the two Sessions with the participation of the invited speakers Luc-Olivier Bauer and Marshall Wilder authors of the book "The Microchip Revolution: A brief historyStudents" and Bruno Murari of STMicroelectronics; The ieee.tv recording can be found here https://italy.ieeer8.org/ieee-day-2020/; 2) "My research in 5 miuntes" with an award for the best presentation organized by the SBs and YP AG coordinators to which Students and YPs could participate sending a pitch of their research and answering to possible questions by the audience. The event was very successful and LMs and Students and YPs were together to celebrate this important date facing the older and younger generation of IEEE.



Joint IEEE Day Celebration Italy & Switzerland Section 2020: The Microchip Revolution



Published on October 9, 2020

■ IEEE Day #Semiconductor History

Affinity Groups

List of Affinity Groups (YP, LM, WiE, SIGHT, etc.), list of SB AGs, newly formed or dissolved AGs/SB AGs, if any since the last meeting reporting (Oct 2020). List the activities intended to support affinity groups.

LM AG is active and each year has an annual meeting. Between 2020 and 2021 the AG added several virtual meetings. In the second part of 2020 we had a joint action by the LM and History Committee in conjunction with the colleagues of the Switzerland Section to celebrate the IEEE Day. There was an online meeting between the LM and History Committee and the Students and YPs. The LM AG contribution was critical to the success of the many Milestones received by the Italy Section and to the new initiative of the Section History Committee: a series of notes about history of IEEE in Italy. The first note "History of IEEE in Italy in the first Sixties" has been published and can be downloaded for free here: https://italy.ieeer8.org/la-storia-della-sezione-italiana-apre-la-collana-di-note-di-storia-curate-dallhistory-activity-committee/.





The Italy Section is proud to have supported and encouraged the formation of a very active YP AG group. Recently, four new officers were elected and together with them other 20 members distributed over the Italian territory. In order to exploit their network and stimulating their activity, we promoted a series of meetings with other representative officers by the Italy Section as well as a meeting with the History committee, the Industry committee. In particular, we strongly promoted the interaction and exchange between the YP AG and the SBs. In addition, practically all the 20 active YPs are distributed in the various committees of the Section, even just to be informed by the committee activities and to share the relevant initiatives to the YP AG group and viceversa.

IEEE Italy Section WIE Affinity Group is still fast increasing its activity. This thanks also thanks to the financial support by the Section and to the cooperation with other Italian Association and Industrial firms having the same purposes. The meetings and actions of the WIE AG can be visited directly at https://site.ieee.org/italy-wie/. In particular, the WIE AG coorganizes and supports every year the Pinkamp initiative with the University of L'Aquila. The main objective of Pinkamp is to bring girls closer to the STEM disciplines, to remove barriers and prejudices, to bring today's students closer to the professions of the future and to contribute to the development of new technologies with competence, creativity and sensitivity.



The Italy Section formed a Humanitarian Activity Committee that organized a joint meeting with YPs on January 15, 2021. The meeting provided an overview of the IEEE Humanitarian Committee Activities (HAC) sketched by John Funso, past Chair of Region 8 HAC. Then, a round table focused on the humanitarian experiences in R8 followed by an introduction to the humanitarian activities in Italy Section for 2021. The next steps include the formation of a SIGHT AG in Italy.

Chapters

List of Chapters and SB Chapters in your Section, the newly formed or dissolved Chapters, if any since the last meeting reporting (Oct 2020). Indicate how many have reported on time and received rebate. Highlight some of the activities.

Chapter activities are well organized. The Chapters receive financial support from the Section for their technical activities. From Jan. 1 2020, the OUs of the Italy Section organized 288 events, 102 from Oct. 20 2020 to today. For this extraordinary amount of activity the Chapter Activity coordinator is crucial as well the treasurer efficiency. Currently, we have 41 Chapters and 6 SB Chapters: the new chapter of ITS Society just started its activities. The interaction among Chapters is increasing also through the formed basis of YPs presented in the previous points. 25 Chapters received the rebates from IEEE. No Chapter has been dissolved recently. No new Chapter and SB chapters have been formed during 2020.

Industry

List the activities carried out to foster relations with Industry and the results obtained.

The 116th IEEE Region 8 Committee Meeting



The activities that work well in Italy Section to foster Industry Relations are mainly carried out by means of two Committees: the Industry Relation Committee and the Entrepreneurship Committee.:

The Industry Relation Committee works to establish direct dialogue with industry firms, to facilitate engagement of industry firms in IEEE initiatives, to increase the number of industrial companies participating in the R8 Programs (Mentor and Internship) and Italy Sections Programs (forum, panels, workshops, job fairs, awards, Student Branch initiatives, special meetings)

In 2020, the Italy Section assigned the "Industrial Distinguished Lecturer Award" to Dr. Enrico Maria Carlini of Terna Rete Italia with the lecture "Terna's strategy and best practices to operate the Italian power system with high share of renewables". Invitations are advanced by several SBs and Chapters. This still confirms the interest and the importance of this activity to enforce the dialogue with industry, especially for our students and YP.

The Entrepreneurship Committee has the aim of analyzing the Italian Entrepreneurship scenario, promoting events in collaboration with the world of entrepreneurship and developing agreements with startup incubators, accelerators, venture capital, collaborating with R8 and IEEE Entrepreneurship. During Melecon 2020, the committee promoted two successful special events for startups and entrepreneurs: "Best Entrepreneurship Activity Pitch Presentation" - a video competition devoted to entrepreneurs to illustrate their innovative and successful entrepreneurship idea with a 5 minute video; "Special meeting on innovative startups and entrepreneurs" - a special meeting structured in two panels dedicated to entrepreneurship financial and institutional supports and to some examples of successful startups. The second event was scheduled as a plenary session of the conference to be held in live streaming.

The collaboration with ABB has become stable. The corporation sponsors annually the RTSI conference and two Italy Section & ABB award "New Challenges for Energy and Industry"

The established links and collaboration with big companies such as ABB, TERNA, STMicroelectronics, ITALCERTIFER of the Italian Railways Group, Leonardo, ENEL, IBM, FRESENIUS Medical Care, are very important and consolidated. This is an important basis to go ahead involving novel big companies as well as small and medium enterprises.

On December 10 2020, the Section organized for the first time a special meeting involving SYP and Industry members. It has been structured in three parts. In the first part IEEE and IEEE Italy Section activities for industry have been presented with a special sight on IEEE SYP contribution to industry relation development. Then, three distinguished speakers of the industry presented the vision of their company about the future developments in the hot topic of Artificial Intelligence. The meeting was completed with a panel where industry speakers and Students/YP had the chance to exchange mutual visions and ways to collaborate and synergically interact.

Activities since the last report

Highlight some of the activities in your Section, with special attention to the things that work well, and things that don't, so that your acquired know-how can be used by other Sections.

The celebrations of the Milestones 1) "Galileo Ferraris" and 2) "Gravitational-Wave Antenna" of 2021 were great successes. In particular, the celebration of Milestone Ferraris included a series of interventions on the figure and contribution of Galileo Ferraris by Marco Mezzalama Emeritus Professor at Politecnico, Paolo Ferraris past professor at the Politecnico, Michele Tartaglia past professor at Politecnico, and Gerard Capolino professor at University of Picardie "Jules Verne". (https://italy.ieeer8.org/ieee-milestones-program-milestone-galileo-ferraris-january-21-2021/).



Galileo Ferraris Milestone plaque discovery



The Milestone on Gravitational Wave Antenna was a three-Milestone joint event held for the first time. It has been sponsored by (i) IEEE USA, (ii) international research centers on gravitational waves EGO-Virgo, LIGO, KAGRA; (iii) National Research Councils as NSF of USA, CNTS of France, INFN of Italy, NWO of Netherlands, Science Council of Japan; (iv) the Italian Ministry of University and Research; (iii) several international universities as University of Pisa, Massachusetts Institute of Technology, California Institute of Technology, Universitè de Paris, Universidad de Sevilla. The event was partially live an partially pre-recorded and transmitted in streaming and included, among the speeches a Nobel Laureates' Conversation involving four Nobel prizes (https://www.gwamilestone.com/).



Gravitational Wave Antenna joint Milestone plaque discovery

IEEE Italy Section signed a MoU with the UK&Ireland in order to facilitate collaboration in a mutually beneficial manner. Some example of cooperation are: (i) Organizing joint conferences, workshops, seminars, etc. (Technical Sponsorship), (ii) Performing joint projects and undertaking joint studies, (iii) Inviting and exchanging scholars, researchers, and experts. Other types of activity that may be agreed on a case-by-case basis.

Planned activities

Highlight some of the future activities and initiatives in your Section.

Following the success of the Milestone on Gravitational Wave Antenna the Italy Section co-organized, with the University of Naples Federico II, a series of seminars on Gravitational Waves that will be held in June 2021 and will start with a lecture of the Nobel Prize Rainer Weiss

We are going to celebrate the Milestone "Multiple Silicon Technologies on a Chip" on 18 May 2021 at the STMicroelectronics site of Agrate Brianza (MB). The planning of the event is already in progress. Then we will celebrate the Milestone for the research contribution of Giovanni Giorgi at the University of Roma La Sapienza. We expect that the events will be a success as for the previous ones.

We will have the RTSI conference in 2021, either in presence or online. We think that the usual attendees cannot miss the conference for more than one year. RTSI became internationally-organized as we involved as technical co-sponsor: UK&Ireland, France, Croatia, Israel and Switzerland Sections. In the next two years RTSI will be organized in France, and in UK. The interested Sections supported a proposal to elevate the conference at Region 8 flagship one.

We are going to publish the second note of the History Activity Committee. We strongly believe that the historical notes will spread the knowledge of IEEE in the technical fields, even beyond the engineering ones.





How Region 8 can be of help to your Section, members, and activities

List any challenges you Section is facing and what support is required from the Region 8. Please, also, give us your suggestions for agenda items that you want to be discussed during the R8 Committee meeting.

Any other issues of interest