

## Italy Section

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**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?**

The activities that work well in Italy Section to foster Industry Relations are:

- 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).
- We have in Florence the fifth edition of IEEE RTSI (Research and Technology for Society and Industry, - 9-12 September, 2019), <http://rtsi2019.ieeesezioneitalia.it/index.html>. RTSI is the annual flag event of the IEEE Italy Section with several initiatives devoted to industries such as: The special event: Special Event with Industries-Leonardo 500 (<http://rtsi2019.ieeesezioneitalia.it/Leonardo%20500.pdf>). This year, the event was for the first time scheduled in plenary session and organized as a round table with the special contribution of R8 Action for Industry coordinator presenting R8 initiatives, a representative of IEEE Croatia Section affiliated to Croatian Transmission System Operator, as well as of a representative officer of Leonardo Company, the CEO of Italcertifier Company, the Head Operation & Maintenance Operation of SNAM Rete Gas, the Dispatching and Operation Director of Terna. A special moment to celebrate the 500th anniversary of the death of Leonardo da Vinci - "artist and engineer" - opened the event.

The Special Session Competence Center: The event was organized as a panel and was aimed at presenting the Competence Centers, conceived as part of the Industry 4.0 Plan, as realities that refer to some Italian universities with the aim of intensifying the relations between research and industry. Universities and companies are little used to interacting and the Competence Centers aim at encouraging this type of collaboration: selected on a national level, they involve excellent university centers and large private players, with the contribution of key stakeholders (research centers, startups etc.) and can rely on government funding. The panel received the contribution of three of Italian Competence Centers.

The Special meeting on innovative startups and entrepreneurs The Entrepreneurship Committee is promoting events in collaboration and developing agreement with startup incubators, accelerators, venture capital, collaborating with R8 and IEEE Entrepreneurship.

During Powertec 2019 (Milan 23-27 June 2019), a plenary panel has been organized on entrepreneurship opportunities and technological trends in the power and energy sector. "Bridging the Gap: Electric Market Trends and Promising Technologies to Bet on in the Next Future" (<https://entrepreneurship.ieee.org/entrepreneurship-powertech-2019/>) has been the focal point right after the opening ceremony, setting the stage for the entire conference. Panelists discussed first the role and the expectation of the general public from the energy sector in the coming decades as well as the support to industry operation, the daily life of citizens and their well-being, the smartness of cities, the society and the environment. The core of the presentations and discussions has been on the various technological aspects offered by the diversified sources of energy from the most traditional to the renewable ones.

During RTSI, the Committee has organized a special meeting on innovative startups and entrepreneurs with the support of IEEE Entrepreneurship: ([http://rtsi2019.ieeesezioneitalia.it/RTSI2019%20Start\\_up.pdf](http://rtsi2019.ieeesezioneitalia.it/RTSI2019%20Start_up.pdf)) which is organized in two panels: The first panel focused on the hot technological areas for entrepreneurs. An introduction provided an overview of the technological areas, the future technological directions and application trends, the worldwide scientific and professional communities interested in these areas, and the support offered by a scientific and professional association like IEEE. Then more specific presentations addressed some technological areas in which efforts are expected to result in opportunity for economic growth; The second panel focused on entrepreneurship supports for success. Funding, organization, management, business strategies and planning, incubators, guidance, mentorship, and institutional supports will be discussed for sustainable and ethic entrepreneurship in the worldwide scenario.

Three panels with industries and academia in the main fields of interest of the forum were scheduled at RTSI: - Industry 4.0: digital products & processes (participants - representatives of TERNA, RSE, ENEL, FREE) - Smart Building and Grids Smart Mobility and Logistics (participants - representatives of Magneti Marelli, Magna Mechatronics, Pure Power Control, VarGroup, TT Tecnosistemi) - Boosting Renewables towards 100 % (participants - representatives of University of L'Aquila, ENEA-STMA, University of Ljubljana, Politecnico of Milan)

The 2019 Industrial Distinguished Lecturer Award (<https://italy.ieeer8.org/ieee-italy-section-awards-2019-winners>) Bruno Cova (CESI) - he will be invited to give lecture on: "Key role of power systems in decarbonizing human activities: how to ensure security and reliability" Antonio Manzalini (TIM) - he will be invited to give lecture on: "Future Internet: a bridge from Artificial Intelligence to Quantum Intelligence"

**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?**

The number of Student Member (Student and Graduate Member) has an increasing trend. 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.

The Exemplary Student Branch Award 2019 (see <http://sites.ieee.org/italy/awards/>) was given to Politecnico di Torino SB, and the most improved SB award was given to University of Roma 1 SB. The Ceremony will be held in Florence in conjunction with the annual conference of the Section IEEE RTSI 2019 (9-12 September 2019) during the gala dinner and award ceremony. The 4th IEEE Italy Section meeting of Student Branches was scheduled during IEEE RTSI 2019 in

Florence ([http://rtsi2019.ieeesezioneitalia.it/technical\\_program.html](http://rtsi2019.ieeesezioneitalia.it/technical_program.html)) with special contribution of the director of IBM Foundation, a representative officer of STMicroelectronics, a members of the History Committee of the Italy Section, as well as IEEE Italy Section Student Activities and Educational Committee Coordinator and the IEEE Humanitarians Activity & Professionals Activities Committee Coordinator;

The SB chairs received 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 2019. IEEE was advertised during the conference (at the reception desk and in a special corner dedicated to IEEE, gadgets and other support material of IEEE was distributed).

In collaboration with the University of Padua and the technical co-sponsorship of five Italian Chapters, the IEEE Italy Section organized the Summer School of Information Engineering (AI and Machine Learning for ICT Applications) which was held in Bressanone from July 8th to the 12th, 2019. The technical program is available at <http://ssie.dei.unipd.it/technical-program-2019/>. The School was very successful with the participation of more than fifty registered Students and Non-IEEE members.

In collaboration with ABB and sponsored by ABB, it was defined the ABB award 2019 "New Challenges for Energy and Industry", with a participation of 35 candidates for the Master Thesis Award (two Awards) and 46 candidates for the PhD Thesis Award (two Awards). The award ceremony will be held during the gala dinner of RTSI 2019 (<http://rtsi2019.ieeesezioneitalia.it/Award%20Ceremony>).

This year, it was announced the first call of the Italian PES Scholarship Plus Initiative. Three awards are financially sponsored by Schneider Electric, Terna and IEEE Power and Energy Society for the IEEE PES Italy Scholarship Award 2019 (<http://rtsi2019.ieeesezioneitalia.it/Award%20Ceremony@%20RTSI%202019.pdf>).

A series of Tutorials was scheduled at RTSI 2019 and participation is free, this with the aim to attract student participation.

This year, we will celebrate the IEEE Day in conjunction with the IEEE Switzerland Section. The event will take place on October 1, 2019 by the Como lake in Italy. There, we will have a joint meeting of the LM and History Groups from both the Sections as well as of the Students and YP from both the Section. The Volta milestone will be celebrated during the event and a Student and YP session with interactive discussion is aimed at creating the best conditions for a fruitful exchanges of ideas.

To increase the number of students that maintain the IEEE membership after last graduation (usually Master or PhD) a special discount for YP membership should be discussed. Helping Students and YP to increase their networking is one of the main aims of the IEEE Italy Sections. Help Students and YP to enter in contact with industrial company is important. Support in such directions would be welcome.

**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?**

IEEE Italy Section is operating to increase the networking among students and YP. The recruitment of Students and YP is strongly related to the presence of active Student Branches and YP AG. To this purpose, we are planning a series of activities through which to establish a distributed network in Italy of active Students and YP volunteers. In particular, the Section will strongly support them during this phase and is planning events with Students and YP protagonists together with industry. The number of Students and graduated Students is significant in the Italy Section (with about 1000 members) and we operates to increase it further.

We are in contacts with big Italian companies to try to involve them always more in our initiatives (the RTSI 2019 was a success in this sense) and to recruit members and possibly new industry ambassadors from their staff. We believe their presence is important to attract new members also from the medium and small companies as well as from startups, spin-off.

We take care that IEEE is advertised during our conferences and other events (at the reception desk or in special corners dedicated to IEEE, distributing gadgets and other support material of IEEE). To be noticed the important growth of membership in the Women in Engineering during these last three years.

**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?**

The Chapter and AG activity is well organized. They receive financial support by the Section for their technical activities, whose number is increasing every year. Currently we have 40 Chapters.

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 same purposes. The third WIE meeting will take place in Florence the next September 11 and it is organized in collaboration with AICA, AEIT and WWE with the Panel Session "The Commitment Chart: The Youth Perspective" and the Poster Session Geneva (Gender Equality in R&Esearch and innoVation) ([http://rtsi2019.ieeesezioneitalia.it/RTSI\\_WIE\\_Italy\\_event2019\\_v4.pdf](http://rtsi2019.ieeesezioneitalia.it/RTSI_WIE_Italy_event2019_v4.pdf)).

YP Affinity Group promotes each year a YP Demo Competition during the RTSI forum and a special event together with the Student Branch. This year, these events will take place during RTSI 2019 on Tuesday 10, September ([http://rtsi2019.ieeesezioneitalia.it/technical\\_program.html](http://rtsi2019.ieeesezioneitalia.it/technical_program.html)). These events are important because they put together Students and YP from different regions of Italy and establish important network among them. The Section aims at improving such networking among Student Branches and YP, with the support of the Chapters. This is a central activity by the Section during this period. This should help also to increase the number of Student and YP memberships.

The History activity committee is working on two new milestones: for the research contribution of Galileo Ferraris together with the Politecnico of Torino; for the research contribution of Giovanni Giorgi together with the University of Roma La Sapienza. The History group is also working on the Milestone proposal for the Gravity Wave Antenna in conjunction with USA.

The Section has a very rich Section Award Program (<https://italy.ieeer8.org/awards>): The 2019 Honorary Award was given to Roberto Padovani "For pioneering innovations in mobile packet-switched Internet access, central to third- and fourth-generation

cellular networks". The award will be officially announced during the award ceremony of RTSI 2019 in Florence, on September 11, 2019. A plaque will be given to the Roberto Padovani on February 6, 2020 in Pisa, during a special event organized at University of Pisa. The 2019 Distinguished service awards are given to Silvano Donati and Vincenzo Piuri for their exceptional contributions and service for the benefit and advancement of the Section. Four awards are assigned this year to the best four chapters and two awards for the two Best Student Branches.

The 2018 Best PhD Thesis Award of Computer chapter and of Computational Intelligence chapter is assigned during RTSI2019 in Florence.

Italy Section continues to strengthen its relationship with Italian Technical Associations AEIT, and AICA, with which it was signed a MoU. Italy Section continues collaboration with other Sections, as shown by the technical co-sponsorship for the RTSI 2019 o UK&Ireland, Israel, France, Switzerland, and Croatia. UK&Ireland, and Israel are sister Sections of the Italy Section.

Italy Section is currently improving the website in order to further and better inform the section members about the recent news of the Section, the Chapters, Section Committees, Student Branches, Young Professional, other activities, announcements. See Section website for all the information (<https://italy.ieeer8.org>).