

IEEE Italy Section for Industry

Tiziana TAMBOSSO

IEEE Italy Section Chair

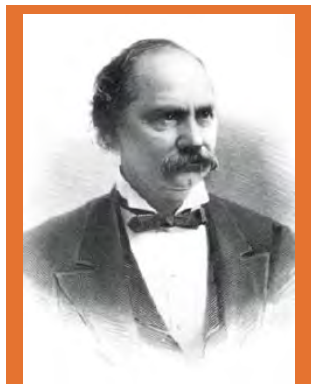


History of IEEE

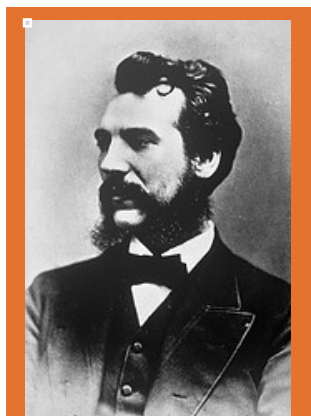
AIEE (1884) + IRE (1912) =

IEEE Jan 1 1963

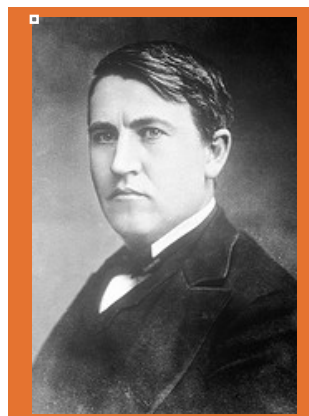
evolution IEEE has been coupled with the **evolution of electrical, electronics and information science and engineering**



Norvin Green
Telegraphy
first AIEE president



A. Graham Bell
Telephony



Thomas Edison
Power systems



Alfred Goldsmith
IRE Co-founder
first journal editor

Institute
of Radio
Engineers

AIEE

American Institute of Electrical Engineers

IRE



IEEE today at a Glance

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity



IEEE and its members inspire a global community to innovate for a better tomorrow. IEEE is the trusted “voice” for engineering, computing, and technology information around the globe.

39 Societies

- Aerospace & Electronic Systems
- Antennas & Propagation
- Broadcast Technology
- Circuits & Systems
- Communications
- Components, Packaging, & Manufacturing Technology
- Computer
- Computational Intelligence (formerly Neural Networks)
- Consumer Electronics
- Control Systems
- Dielectrics & Electrical Insulation
- Education
- Electromagnetic Compatibility
- Electron Devices
- Engineering in Medicine & Biology
- Geoscience & Remote Sensing
- Industrial Electronics
- Industry Applications
- Information Theory


- Instrumentation & Measurement
- Intelligent Transportation Systems
- Magnetics
- Microwave Theory & Techniques
- Nuclear & Plasma Sciences
- Oceanic Engineering
- Photonics
- Power Electronics
- Power & Energy
- Product Safety Engineering
- Professional Communication
- Reliability
- Robotics & Automation
- Signal Processing
- Society on Social Implications of Technology
- Solid-State Circuits
- Systems, Man, & Cybernetics
- Technology and Engineering Management Society
- Ultrasonics, Ferroelectrics, & Frequency Control
- Vehicular Technology

7 Technical Councils

- Biometrics
- Electronic Design Automation
- Nanotechnology
- Sensors
- Superconductivity
- Systems
- RFID


IEEE Membership by Region


Total Membership
421,355


 R1 to 6 — 194,167

 R7 — 17,163

 R8 — 77,883

 R9 — 18,569

 R10 — 113,573

 IEEE Offices



50% work for private industry,
20% in academia,
10% in government,
20% other (retired, self
employed, unemployed ...)

IEEE Italy Section: History



IEEE Italy Section Today

- More than **5,000 members** (the third largest in Region 8)

39 Chapters

- Aerospace & Electronic Systems - AES 10
- Antennas & Propagation/Electron Devices/
Microwave Theory & Tech - AP03/ED15/MTT17
- Antennas and Propagation / Microwave Theory &
Tech - AP03 / MTT17
- Biometrics council - BIO
- Broadcast Technology - BT
- Circuits & Systems - CAS04#1
- Circuits & Systems - CAS04#2
- Computer – C016
- Consumer Electronics - CE
- Computational Intelligence – CIS11
- Control Systems – CS23
- Council on Superconductivity – CSC
- Dielectric and Electrical Insulation - DEI
- Education – E25
- Electromagnetic Compatibility – EMC27
- Electron Devices – ED15
- Engineering in Medicine & Biology – EMB18
- Geoscience & Remote Sensing – GRS29
- Geoscience & Remote Sensing – GRS29#2
- Industrial Electronics/Industry Applications/Power
Electronics – IE13/IA34/PEL35
- Industry Applications/Power Electronics – IA34/
PEL35
- Industry Applications - IA34
- Instrumentation and Measurement - IM09

- Information Theory - IT
- Magnetics - MAG33
- Nanotechnology Council - CH08677
- Nuclear and Plasma Sciences - NPS05
- Photonics – PH036
- Oceanic Engineering - OE
- Power & Energy – PE31
- Reliability – RL07
- Robotics and Automation – RA024
- Sensor Council- SCIC
- Signal Processing – SP01
- Solid State Circuits – SSC37
- System Council - SC
- System, Man & Cybernetics – SMC28
- Technology Management – TM14
- Vehicular Technology/Communications – VT06/
COM19

3 Affinity Groups

- Life Members
- Young Professional
- WIE- Women in Engineering

■ **IEEE ITALY SECTION WEBSITE:**
<http://sites.ieee.org/italy/>

IEEE Italy Section SB

20 Active Student Branches, SB-Chapters and Affinity Groups

- - Pavia
SBC- Pavia (MTT)
SBC – Pavia (AP)
AG-WIE
 - Roma La Sapienza
SBC - Roma La Sapienza- IAS
 - Brescia
 - Cagliari
SBC- Cagliari – SMC
 - Genova
 - Politecnico di Milano
AG-WIE
SBC – PoliMI (Computer)
SBC –PoliMI (EMB)
 - Napoli Parthenope
 - Napoli Federico II
 - Pisa
 - Politecnico di Torino
 - Bologna
 - Padova

▪ **Exemplary Student Branch Award 2018**
Politecnico di Milano SB

Most Innovative SB - Pavia Univ. SB (also R8 Exemplary SB Award 2018)

Most Improved SB - Politecnico di Torino SB



Modena, IEEEERTSI2017, Student Branch meeting

IEEE Italy Section Committees

Awards Committee

Conference Committee

Membership Development Committee

Action for Industry Committee

History Activity Committee

Educational Activity Committee

National Association Liaison Committee

Student Activity Committee

Information Management

Professional & Career Development

Young Professional & Student Representatives

IEEE Italy Section

Action for Industry Committee

Coordinator – Pietro Erratico (ex STM manager)
other three members of the committee from industry (two Industry Ambassadors) and the contribution of chapter chairs and other volunteers; **(we are looking for other Industry Ambassadors)**

OBJECTIVE: strengthen the relationship with industries

- increasing the Italian Industry participation in the **R8 Mentor Program** and **R8 Internship Program**;
- organizing informative specific meetings with selected big industries;
- organizing panels and other joint events;
- organizing student visits to industries;
- organizing job fairs during Section conferences;
- establishing new awards or scholarships with Industry financial support

IEEE Research and Technologies for Society and Industry

We had already fourth edition of this International Forum organized annually by the IEEE Italy Section together with an Italian University, with the technical sponsor of: Italy Section Chapters, University Groups (ET, GII, GRIN, GUSEE, GMEE....) and IEEE Societies/Sections. on interdisciplinary topics: like smart energy, smart mobility, smart emerging technologies for industry 4.0, IoT, sustainable technologies for cities and environment...



4TH INTERNATIONAL FORUM
ON RESEARCH AND TECHNOLOGIES FOR SOCIETY AND INDUSTRY

INNOVATION TO SHAPE THE FUTURE

Polytechnic School of the University of Palermo
9 | 10-13 | 2018
h 9 am > 5 pm
Viale delle Scienze
Palermo, Italy

IEEE Italy Section

RTSI 2018 – Innovation to shape the future

Three main area, three panels with industries on:

Sustainable development
for cities and environment

Smart emerging
technologies for Industry 4.0

ICT for future
networks

The main purposes of the event are:

- to promote and to strengthen **partnerships and cooperation between academia and industry**;
- to discuss **inter-disciplinary** ideas and to promote cross-fertilizing cooperation between researchers working in different research areas;
- to increase the public understanding and awareness of how engineering and technology can positively affect people quality of life;
- to promote discussion between the research community and related government bodies about effective and successful research policies;
- to disseminate recent advancements, research/technology solutions, and novel applications

RTSI 2018 – special events

- Tutorial
- **Panels with industries**
- Meeting with Industry
- **Special meeting on Innovative enterprises in Italy**
- IEEE Young Professional demo competition
- IEEE Student Branch meeting and student special events (with a workshop on wearable systems and a short course on how to make an effective presentation)
- **Start-up/spinoff and industry exhibition**
- WIE event – Steering girl to STEM
- Awards ceremony with: Industrial Distinguished lecturer and **awards sponsored by industry**

Special meeting on Innovative enterprises in Italy

IEEE RTSI 2018

Special meeting on Innovative start up and entrepreneurs

12 September 2018 - Aula Magna, Polytechnic School, University of Palermo

Nowadays, innovation processes are characterized by an experimental approach, where start-ups, innovatives SMEs and large companies are experiencing new opportunities of cooperation. Open innovation culture and models are emerging, asking for new regulations and access to finance. Specialized actors as incubators, associations and foundations promoting start-ups and innovative enterprises can help in nurturing a favourable ecosystem toward an altruistic model of economy.

Programme

14:30 - **Welcome to the participants**

Vincenzo Di Dio - University of Palermo, Tiziana Tambosso - IEEE Italy Section Chair

14:45 - **Keynote speech: Exploring the culture of Open Innovation. Towards an altruistic model of economy**

Piero Formica

Winner of the Innovation Luminary Award 2017

Senior Research Fellow at the Innovation Value Institute, Maynooth University, Ireland

Founder of the International Entrepreneurship Academy Network

15:15 - **1st panel: How to start, survive and grow in a rapidly changing world**

Chair: **Fabio Maria Montagnino** - Managing Director, Consorzio ARCA, Palermo

- **Anders Nilsson** - partner growITup
- **Chiara Maiorino** - Education and Regional Manager South Europe - EIT Health InnoStars
- **Giovanni Perrone** - President PNI Cube
- **Gianmarco Troia** - CEO Qwinco Ltd

16:15 - **Coffee break and networking time**

16:45 - **2nd panel: Open innovation in large companies: an opportunity for innovative Startup**

Chair: **Pietro Erratico** - IEEE Italy Section

- **Antonio Biondi** - Manager of ENEL Innovation Hub Italy - ENEL S.p.A.
- **Roberto Candela** - CEO Prysman Electronics

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- **Viviana D'Alto** - ST Microelectronics
 - **Marco Zaccaria** - Open innovation specialist - Terna S.p.A

17:45 - **3rd panel: The rise of the solvers: towards challenge-driven startups and innovative SMEs**

Chair: **Umberto La Commare** - President, Consorzio ARCA, Palermo

- Idea - [Filippo Paredes](#) (SME cooperating with ENEL)
- M2D - [Davide Marano](#) (startup cooperating with ENEL)
- OCORE - [Francesco Belvisi](#) (startup winner of PNI 2017)
- Safety Engineering - [Giuseppe Ragonese](#) (startup finalist of NextEnergy challenge by Terna)
- Site Assistant - [Gregorio Russo](#) (startup finalist of NextEnergy challenge by Terna)
- TemLab - (Distretto Meccatronica Sicilia - P.R.I.M.S.) - [Manuela Ceraulo](#)

18.45 - 19:00 - **Q&A**

IEEE Italy Section Activities

Awards

- Best PhD Thesis/Best Master Thesis/Best paper Awards of the chapters
- Exemplary Student Branch Award
- YP Demo Award
- Best Chapter Award
- Honorary Award
- Distinguished Service Award
- Industrial Distinguished Lecturer Award
- Awards sponsored by industries for Master or PhD Thesis

IEEE Italy Section Honorary Award

this Award is assigned to candidates that have provided **exceptional contribution to the science and technology state-of-the-art** or outstanding service to humanity in the IEEE's designated fields of interest.

- **Honorary Award 2017**
Leonardo Chiariglione
for the significant contribution
in the development of MPEG
international standards

- **Honorary Award 2018**
Federico Faggin
for his outstanding contributions to the self aligned
MOS silicon gate theory & technology and to the
development of the first microprocessor



Industrial Distinguished Lecturer Award

Purpose:

This award is for recognizing IEEE Italy Section distinguished member of industry who is an excellent speaker and have made high quality technical contributions on advanced topics that are of primary importance to the industry and to IEEE Italy Section community.

With this award IEEE Italy Section promotes the diffusion of cutting-edge knowledge with emphasis on industrial challenges and perspective, for the benefit of its members. At the same time, the speakers and their employing companies are given the opportunity to make a strong impact on IEEE Italian community

Ultimately, **this award aims to strengthen the ties between IEEE members and industry leaders.**

Description: Distinguished lecturer travel to various locations in Italy to give from a minimum of three to a maximum of six lectures per year. They shall be invited by Chapter, AG or SB Chairs who will organize lectures at their Universities/Research Centers but also at Conferences, workshops and other technical events organized by IEEE Italy Section.

Awards for Industry

- **Industrial Distinguished Lecturer Award 2017**
Benedetto Vigna (STM)
Innovation in big companies: the MEMS in STM

three speeches in: **University of Bologna (28 June 2018),
Politecnico di Torino (26 Oct. 2018) and University of
Pavia (15 Nov. 2018)**

- **Industrial Distinguished Lecturer Award 2018**
Enrico Ragaini (ABB)

**Not only smart grid: the many links between electronics,
software and power systems**

Innovation in Big Companies

Politecnico di Torino
October 26, 2018 - 11.00

FREE ENTRY

Benedetto VIGNA

STMicroelectronics
President, Analog, MEMS and Sensors Group
Industrial Distinguished Lecturer



Bio

Benedetto Vigna is STMicroelectronics' President, Analog, MEMS and Sensors Group, and has held this position since January 2016. He is a member of ST's Executive Team.

Vigna joined STMicroelectronics in 1995 and launched the Company's efforts in MEMS. Under his guidance, ST's MEMS sensors established the Company's leadership with large OEMs in motion-activated user interfaces. Vigna has piloted ST's successful moves into microphones, e-compasses, and touch-screen controllers, as well as environmental sensors, micro-actuators, industrial and automotive sensors, and low-power radios for IoT. Vigna's mandate was further expanded with analog ICs and RF products (2011) and smart-power devices for OEMs and mass market (2016). ST's Imaging division moved under his management in the fourth quarter of 2017.

Abstract

The process for promoting innovation will be discussed in details, with specific reference to the practical case of MEMS in STMicroelectronics. Innovation starts with a good idea, but it can only go forward if the corresponding product roadmap can quickly adapt to the market evolution. The role of the people involved in the process, and not only that of the technology is key for the success of innovation..



Politecnico di Torino
IEEE Student Branch



IEEE Industrial
Distinguished
Italy Section Lecture



IEEE PES Italy Scholarship Award

The IEEE Italy PES Chapter has instituted the “IEEE PES Italy Scholarship Award (IPISA)” with the aim of attracting bright & meritorious students to the Electrical Engineering, and in particular the power engineering stream.

Recognizing four recipients in 2017 (two of them sponsored by Schneider Electric)



in 2018 two new awards will be published – industrial sponsor Terna and IEEE PES

IEEE Italy Section Awards with industrial sponsor



**IEEE Italy Section 2018 Master Thesis Award on
New Challenges for Energy and Industry**

**IEEE Italy Section 2018 PhD Thesis Award on
New Challenges for Energy and Industry**

54 candidates from 21 Italian Universities. 18% of candidates were women
The thesis covered a large field of interest such as: microgrid and smart grid, renewable energies, robotics, cyber security, wireless sensors for industry 4.0 and many others.

Thesis were evaluated according to: degree of innovation in the proposed methodology or technology; potential for application in real-world situations; potential effectiveness.

6 awards were assigned in 2018

The so positive outcome of this competition motivates ourselves to proceed on the same way and re-propose, annually, this kind of award, always with industry cooperation.

<http://abbaward2018.ieeesezioneitalia.it>





4th International Forum on Research and Technologies for Society and Industry

Innovation to shape the future

Palermo, Italy, 10-13 Sep 2018

Organized by the IEEE Italy Section and University of Palermo
<http://rtsi2018.ieeeesetioneitalia.it>

Young Professionals competition

The IEEE Young Professionals (YP) program focuses on young people, i.e. up to fifteen years from the first degree and with an option to participate beyond the fifteen-year span. YP is an international community of enthusiastic, dynamic and innovative members and volunteers and IEEE is committed to helping YP evaluate their career goals, polish their professional image, and create the building blocks of a lifelong and diverse professional network.

The 4th RTSI'18 forum (<http://rtsi2018.ieeeesetioneitalia.it/>), bringing together leading representatives from politics, industry and academia to foster technological innovation and excellence in all the fields of primary interest for IEEE, including power systems, electronics, informatics, automation, and computer engineering, offers a great opportunity to YP to be on the stage showing advancements in their fields.

Hence, the RTSI'18 forum includes a YP competition that consists of presenting a Poster and a Demo related to the YP research activities. This competition can be considered as a forum for showcasing the state of the art in a broad range of fields that include all the themes belonging to RTSI. The focus will be on innovative prototype implementations, systems and technologies in this research fields.

Demos can be considered as real, practical, and interactive proof of the presenters' research ideas and scientific or engineering contributions, with the goal of offering YP the opportunity to discuss systems, applications, prototypes, or proofs-of-concept with Senior researchers and people from industry. In addition, YPs are requested to give a 3-minute speech to convey the most important ideas and findings related to the proposed research activity.

An evaluation committee will score posters/demos/speeches to award the best one with a 500 EUR prize sponsored by the IEEE Italy Section. Demos will be primarily judged on originality, execution, and illustration of the core research ideas. In addition, four YPs will be awarded with a development kit (<http://www.st.com/en/evaluation-tools/steval-stkit01v1.html>) sponsored by STMicroelectronics. The award ceremony will take place on September 12, 2018.

Please submit a short demo description using an abstract format (max. 1 page in English) describing the scientific or engineering concepts behind the work, the novelty of the work and how the work differs from existing systems/techniques.

At the conference, demonstrators will be given a table and a power outlet. Demo presenters are expected to bring with them everything that is needed for their demo (hardware, laptops, sensors, PCs, etc.). Participants are required to present also a poster illustrating the scientific research that lies behind the demonstrator.

The **new** deadline to submit proposals is **May 7, 2018**. To submit a contribution, please send an email to demo.ieeertsi@gmail.com with the following information:

Title of the contribution

Authors with affiliations

Presenter (must register to the forum)

Demo requirements (e.g. internet connection, space needs)

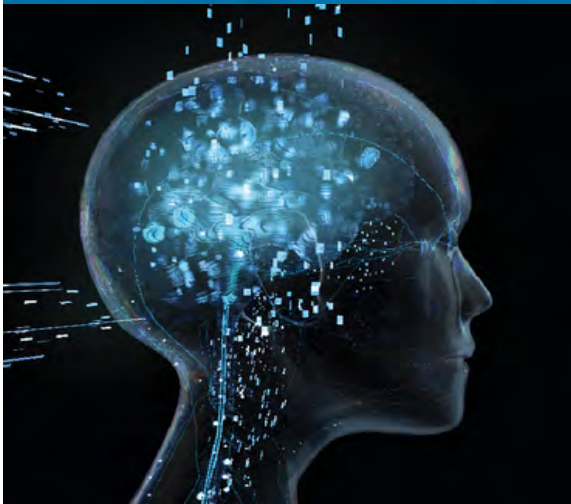
A PDF file with the short demo description in the extended abstract format

Young Professional Demo competition with the sponsorship of IEEE Italy Section and ST Microelectronics





Thank you!



<http://sites.ieee.org/italy/>

