

Interviews with the IEEE Region 8 Director and Director-Elect

Antonio Luque, Region 8 Director

Why is Region 8 News important to the Region?

A.L. R8News is the flagship publication and it gets delivered to members right in their postal inbox together with Spectrum. Many members still appreciate that they do not have to go and search for news but they are brought to them.

What would you like to see us covering from Region 8 in the future?





A.L. The strength of IEEE lies in its volunteers. Topics that make members in general understand the power of volunteering, the benefits that they would get, and the ways that they can start volunteering for IEEE, would

be interesting for everyone. What are your plans for the future of our region?

A.L. We are in a critical moment because of the pandemic and the shift in ways that people are living working. Members demand new services and we at R8 are starting new initiatives that will allow us to reach many types of members and potential members, like those working in industry, practitioners, freelancers, etc. Given the diversity in our

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Message from the Chair of Region **Publications & Communications Team**



IEEE Region 8 Communication Channels

Dearest r8 Members, Hope you and your families are doing well and keeping safe.

As the Chair of the

Region8 "Publications & Communications" SubCommittee (R8 PnC) and through this short note to I intend introduce ourselves and familiarize you with our committee and its various components - through which we can assist you, in not only promoting your IEEE message but also in sharing your activities/ stories/achievements, with all our regional & global members.

Basically, the PnC is primarily responsible for communicating content and information for the benefit of our R8 members (and beyond) and consists of 5 different communication channels. Each channel has its own dedicated EiC (Editorin-Chief) and associated team members. While each of the 5 channels disseminate information in its own distinctive manner, they all converge and synchronize to the same higher platform. The first 3 mentioned below, belong to our "online" portfolio while the last 2 are hard publications.

1. Region 8 Website/Electronic Communications (R8EC): The region's website is a main repository of information about the region & it is suitable for posting information and resources available in the region. The EiC for this channel is George Michael.

Visit the main Region 8 Website

2. Region 8 Social Media (R8SM): In our region, we continuously strive to stay connected with our followers online using various social media platforms (Facebook, Twitter, LinkedIn etc). This is to ensure better engagement with our members and to provide quick real-time information and messages. The EiC for this channel is Mohammad Hossein Babaee.

Visit R8SM information on our website and following links to visit our respective SM platforms: <u>Facebook</u>, <u>LinkedIn</u>, <u>Twitter</u>, <u>Instagram</u>.

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Message from the Editors



Reloading Region 8 News

My volunteering experience with IEEE started in a quite unusual way. As an Engineer with a budding interest in writing and communication, while I was a visiting Bioengineering PhD student in the United States, I looked for plenty of opportunities to practice Science, Technology, Engineering and Mathematics (STEM) outreach. It was a fortunate experience that my paths

crossed with one of the IEEE Potentials editors and I applied to be an editor as well. I knew of the academic and industry activities conducted by IEEE worldwide and I had even attended one of the IEEE EMBS conferences in Portugal, fresh out of my Biomedical Engineering degree, and was fascinated by the focus on students and young professionals. However, being a communications volunteer has been a whole new level of exposure to the global organization.

From my experience as an editor for IEEE Potentials and promoting content for the Students and Young Professionals audience, then volunteering opportunities in Portugal Section and Region 8 came, all in communications. 4 years after my first encounter with IEEE as a volunteer, I now took on the greatest role of my IEEE volunteering activities as the Editor in Chief of Region 8 News. For someone who dreamed of being a journalist as a young girl, along with a dream of being a scientist in the Biomedical field that became my career path, I can now merge the best of both worlds and it is an honor to serve the Region.

I am aware that this is no small feat. Region 8 News has been dormant for a little over two years now and the editorial board is entirely new, building from the Publications and Communications subcommittee. Also, we are connected to all the other channels (the Region 8 website, Region 8 Today, Social Media, and the upcoming magazine Sigma). We are aware of how much the members of Region 8 miss Region 8 News and how this newsletter can create a sense of unity in such a large region. Additionally, with the constraints we have all faced since 2020 with the COVID-19 pandemic, we hope that the reloading of Region 8 News is an example of the resilience of the members of the Region. We want to showcase the key activities that members have conducted, provide announcements for upcoming events and key global IEEE milestones.

Furthermore, it is impossible to make good content without the collaboration of the members. Please send your announcements to editors@ieeer8.org so that all five Editors in Chief of the Publications and Communications subcommittee are on the loop and also send your feedback so that the first edition after this pilot will be suitable to your needs. Hopefully, we want to create a renewed sense of belonging to the region and showcase the diversity of IEEE.

Let's be together in advancing technology for the benefit of humanity in Region 8 and in communicating our achievements in 2021.



With the digital revolution accelerated by the COVID-19 pandemic, video content has turned out to the most popular medium for sharing information.

IEEE.tv being IEEE's official video platform has gathered momentum too. IEEE.tv is an award-winning, Internet-based television network, producing delivering special-interest programming about technology and engineering for the benefit of IEEE's members and the general public. We are looking for ambassadors to make sure the benefit of IEEE.tv reaches IEEE members across all regions. Do you think you have a passion for video? Join us. We are on the lookout for *Ambassadors* in all 10 Regions

(Regional/Council/Section/StudentBranch/AffinityGroup level) to build communication channels between volunteers who can assist IEEE.tv committee members

Head over to https://volunteer.ieee.org/ and search for 'IEEE.tv Global Ambassador' and check out the opportunity.



Interviews with the IEEE Region 8 Director and Director-Elect

Region it is very important that everybody feels welcome in IEEE and can find the right tools for their career.

Vincenzo Piuri, IEEE Region 8 Director-Elect

Why is Region 8 News important to the Region?

V.P. I believe that IEEE Region 8 News is essential to keep our scientific and professional community updated on the major activities which are happening in our Region, to timely recognize the efforts and achievements of our volunteers, and to share the strategic directions of activities of our Region and our Sections, SubSections, Chapters, Student Branches, Student Branch Chapters, and Affinity Groups. It is a fundamental forum to give a comprehensive view of what we are doing in the various units of our Region, a stimulus for attracting volunteers and show them the value of what there are doing for the community, an opportunity for engaging with the entire scientific and professional community in our geographical area.

Due to the publication schedule, Region 8 News can publish only information valid and useful in the medium-long term, while the very short term information need to use other communication channels with a shorter time from submission to dissemination (like social networks, email, web). This is why it is important to integrate the various communication media in a holistic and synergic perspective. What would you like to see us covering from Region 8 in the future?

V.P. Strategic plans for our region, best practices, more recognition of the volunteers' efforts.

What are your plans for the future of our region?

V.P. To identify flexible and sustainable membership models, with fees proportional to the average income in our field in each Country, personalized membership benefits, and more focus on the young generations. To continue to be the trusted source for high-quality knowledge, by nurturing technical activities and conferences, focusing on emerging technologies, providing practical knowledge for professionals, and expanding continuing education. To support underserved groups and geographical areas, by facilitating the access to knowledge and education, promoting soft skills and mentoring services, supporting entrepreneurship, expanding services for professionals and industry, and cooperating with Societies/Technical Councils and national associations.

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Short Region 8 Highlights

- A workshop with industry leaders was held on "Motivations and Reservations: The Barriers and Benefits of Adopting Trustworthy AI," including representatives from Siemens, Bosch, Telefonica, Otto, and Atos. This was the first of a series of three workshops being supported by IEEE SA and appliedAI, which is part of the largest innovation centers in Europe, focusing on the application of AI technology.
- The IEEE European Public Policy Committee (EPPC) adopted two Position Statements
- o "Renewable Energy Systems in the European Union: strengthening European leadership in achieving climate and energy goals" that will also serve as a basis to set up bilateral meetings with European Union (EU) policymakers on the topic of renewable energy sources.
- o "Cybersecurity for a stronger and more resilient digital Europe," that will also serve as a basis to explore opportunities for collaboration with both EU institutions and the wider policy stakeholder community on the topic of cybersecurity and associated matters.
- The EPPC and IEEE SA submitted a joint response to the European Commission's public consultation on the review of the NIS Directive, the first piece of EU-wide legislation on cybersecurity.

Message from the Chair R8 PnC ...

3. Region8 Today (R8T): This is the online News Portal of Region 8 with the main aim to quickly share current news and the great work being done by our members. In addition to that, it also aims to provide a networking opportunity for newcomers and social media links for better understanding IEEE. The EiC for this channel is Hazar Oklah.

<u>Visit</u> R8T information on our website and the main R8T webpage. 4. Region 8 News (R8N): This is our main newsletter, published

quarterly to keep IEEE members within the Region, updated on programs, initiatives, events and activities. The EiC for this channel is Cátia Bandeiras.

Visit R8T information on our website.

5. Region 8 Sigma Magazine (R8Sig): This magazine is recently being introduced mainly as a medium to highlight and showcase people, their achievements, projects, technology, etc. which are emanating from our Region 8. The EiC for this channel is Christopher James

Visit Sigma information on our website.

We are always seeking information and content and would love to hear from you. Hence, in order to facilitate our correspondence, we have created two separate mechanisms through which you can reach us:

- Through editors@ieeer8.org email address: This is the dedicated email address and your request will go to all the 5 EiC's, who will in turn review and action it and place the content in the relevant place, if deemed appropriate.
- Through this online form (also available at https://ieeer8. org/pnc/), that we have created for your convenience. Again, the request will go to all the 5 EiC's, who will in turn review and action it and place the content in the relevant place, if deemed appropriate.

Furthermore, our teams from specific channels (R8T, R8N, R8SM, R8Sig) will also be individually approaching their counterparts within the various OU's to solicit content, stories and information. Hence, liaise with your respective OU officers (section, society, SB, AG etc.) and kindly collaborate with them, so we may be able to support you efficiently.

Besides the above, should you have any other questions, concerns, ideas or feedback etc, please feel free to reach out to me directly at adeelsultan.ieee@gmail.com.

You may also contact the entire PnC Subcommittee at pnc@ ieeer8.org or you may visit us at our main website https:// ieeer8.org/pnc/

Moreover, for recent news, you may go to our main news webpage: https://ieeer8.org/news/

Finally, save this message for future reference, don't forget to get in touch with us and especially don't forget to "subscribe" to our social-media handles. Make use of this excellent facility to promote your IEEE stories, events, activities &

Look forward to hearing from you all soon.

Adeel Sultan Chair, R8 PnC



region8news

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IEEE Region 8 News is our quarterly newsletter, published by Region 8 Committee to keep IEEE members within the Region updated on programs, initiatives, events, and activities. The printed edition is distributed free with IEEE Spectrum to IEEE members throughout the Region and the electronic version is distributed via email to IEEE Region 8 members, and downloadable from the Region 8 News website as well. IEEE Region 8 News is produced by

IEEE Region 8 website ieeer8.org

IEEE Region 8 News download page r8news.ieeer8.org

Send us your news and articles r8news@iee e.org

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Margaretha Eriksson (Sweden)

Designer Mohammad Hossein Babaee (Portugal)

This publication is here to showcase events, achievements and news items from across the region. As this is produced with specific deadlines throughout the year it is an ideal medium for reporting on past events, meetings or stories - with the ability to promote future events somewhat. We welcome reports, stories and general content - including pho Please find the guidelines for content submission here.

"Deadline for content submission for the September 2021 issue: July

REGION 8 OPERATING

COMMITTEE OFFICERS

2021-2022



Appointed Members

Action for Industry John Matogo (Kenya) Region 8 News Catia Bandeiras (UK & Ireland) Antonio Luque (Spain)

Awards & Recognition Magdalena Salazar Palma (Spain)

Chapters Andrejs Romanovs (Latvia)

Strategic Planning Magdalena Salazar Palma (Spain)

Conferences Habib Kammoun (Tunisia)

Ad-hoc Members

Africa Council Chair Vincent Kaabunga (Kenya)

New Student Contests Initiative Lee Crudgington (UK & Ireland)

Careers New Initiative Mohammed Amin (Egypt)

Publications and Communications Adeel Sultan (United Arab Emirates)

Diversity, Equity and Inclusion

Christopher James (UK & Ireland) Electronic Communications

George Michael (Cyprus) Region 8 Today

Region 8 Sigma

Electronic Communications

policies/p9-26.html

Student Representative Theodoros Chatzinikolaou (Greece)

Humanitarian Activities Abdulateef Aliyu (Nigeria)

Women in Engineering Maria Alexandra Paun (Switzerland)

Membership Development Mike Hinchey (UK & Ireland)

Young Professionals Almedin Kavaz (Germany)

Professional and Educational Activities Conrad Attard (Malta)

Maria Efthymiou (Cyprus)

Region Vitality Coordinator Matej Zajc (Slovenia)

Adam Jastrzebski (UK & Ireland)

Sections Congress Coordinator Costas Stasopoulos (Cyprus)

Martin Bastiaans (Benelux) SYP Congress Coordinator

History Activities

Barbara Vujkov (Serbia)

Life Members Peter Magyar (Germany)

Social Media Mohammad Hossein Babaee (Portugal)

New Industry Events Initiative Nihal Sinnadurai (UK & Ireland)



The Instityvute of Electrical and Electronics Engineers 3 Park Avenue 17th Floor New York 10016 USA IEEE prohibits discrimination in its activities. For more information, visit www.ieee.org/web/aboutus/whatis/

IEEE Initiatives



TryEngineering

IEEE Pre-University Volunteer STEM Portal

Share your <u>programs</u> at on the IEEE Pre-University Volunteer STEM <u>Portal</u> so we can demonstrate the collective impact IEEE is making to inspire the STEM professionals of tomorrow.

<u>TryEngineering.org</u> launched a new IEEE Pre-University Volunteer STEM <u>Portal</u> to support IEEE volunteers in their STEM outreach initiatives as well as building local STEM communities. The new STEM portal is the place to be for all things related to pre-university STEM programs at IEEE, featuring a searchable database of programs and "how-to" resources developed by volunteers like you. Share your programs today!

Together, Let's Share. Give Back. And Inspire as many students as possible.

For more information: volunteerstemportal@ieee.org



2021 IEEE Medal and Recognition Recipients + 2022 Call for Nominations

Lynn Frasetti, Senior Awards Presentation and Communications Specialist, IEEE Corporate Activities -Awards

We are pleased to announce that the 2021 IEEE Medal and Recognition recipients can

be found on the new Awards website at: https://corporate-awards.ieee.org/

recipients/current-recipients/. The recipients have been notified. Please feel free to send your own notes of congratulations and to publicize the recipients.

These awards were be presented at the virtual 2021 IEEE Vision, Innovation, and Challenges Summit & Honors Ceremony, 11–13 May 2021.

IEEE Awards is now accepting nominations for IEEE Medals and Recognitions. The deadline to nominate a colleague is 15 June 2021. Nominate a colleague today!

The IEEE Awards Program is more than 100 years old, a peer-recognized program of achievement that has recognized leaders and visionaries who have paved the road of discovery in ways no one would ever imagine. IEEE Awards inspire achievement and set a standard of excellence and a motive to aspire to shape the future for the benefit of humanity, one innovation at a time.

For more information on how to submit nominations, please visit https://corporate-awards.ieee.org/corporate-awards/

among all ages, due to the second wave of the global pandemic.

The speaker and IEEE Medal and Recognition presentations from the 2021 IEEE Vision, Innovation, and Challenges Summit can be watched on the Awards Channel on IEEE.tv each day after the 11–13 May event at: https://ieeetv.ieee.org/channels/ieee awards. For more information about the event and to view the Agenda, go to: https://corporate-awards.ieee.org/event/2021-vic-summit-honors-ceremony-gala/#when-where

Region 8 Member and Activity Features



IEEE Portugal Engineering Day 2020

Carlos Ferreira, IEEE EMBS Portugal Chapter

The IEEE Engineering Day has been promoted by the Portuguese section since 2015. It has been held in different cities: Aveiro (2015), Coimbra (2016), Lisbon (2017 and 2018), and Porto (2019). This year due to the pandemic context it was held in a virtual format. This day had included various presentations or focused on different topics such as smart cities (2017) and industry (2018). Another important fact is the organization has been changing over time from Student Branches (2015 and 2016), to Chapters (2020), made entirely by the Section with the support of Higher Education Institutions (2017 and 2018) or in cooperation with other events, such as WiE ILS 2019.

Basically, the IEEE Engineering Day is a day when the Portuguese section shows itself to the community and promotes the discussion of relevant topics in academia and industry. This year it had 2 main sessions: Sensors and Logistics, 2 interdisciplinary subjects, in addition to the initial IEEE presentation and the Awards Session.

The panel of speakers was built with input from different chapters in our section: IMS (Octavian Postolache), EMBS, SSCS (João Pedro Oliveira), IAS (Bernardo Martins), CS (Tiago Silva and Rui Nóbrega), and Blockchain Working Group (Catarina Reis). More about the program can be found at https://engineeringday.ieee-pt.org/2020/

Over 4 hours, it was possible to keep up with an interesting exchange of ideas from 6 speakers. In the Sensors session, with contributions from Olfa Kanoun, Paulo Mendes, and João Pedro Oliveira, topics such as smart sensors, health sensors, and the Internet of Things (IoT) were discussed. In the Logistics session, with Rui Sequeira, José Pedro Silva, and Miguel Pupo Correia, the discussion moved from supply chains to micro logistics and blockchain. These engaging panels were attended by 175 attendees from 10 countries, of which 1/3 were IEEE members.

In the final session, the Executive Committee (ExCom) presented the different awards that members and student branches won through their

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IEEE Engineering Day 2020 - IEEE Portugal Section

Region 8 Member and Activity Features ...

societies, R8, and IEEE globally. Also, chapters and members were awarded at the Portuguese section level for the years 2018 and 2019. Finally, the 6 awardees of the Outstanding MSc Thesis Award were announced. The first edition of this Award was quite competitive, with 56 submissions from different technical domains.

The Portuguese section of the IEEE has more than 1000 members. Chapters, Affinity Groups, and Student Branches are a good way to promote and create engagement for IEEE in our country, with the Portugal Section often having a fundamental engagement, regulatory, and bureaucratic role. In this way, I consider that the IEEE Engineering Day in this annual format is undoubtedly quite interesting since it allows shifting focus from the specific groups the members are affiliated with, and allows dialogue between different members and groups within IEEE, building something for the community.

In my view, events organized by a section sometimes have little participation. The main factor is that "engineering" by itself is a very broad topic and the participants want the "tree leaf". In order to suit all the technical chapters, I think it makes sense to create multidisciplinary events. The interface areas allow the crossing of different realities, different specialties and approaches, which is usually a very pleasant mix of experiences. On the other hand, all events have become virtual due to the Covid-19 pandemic. Despite its share of saturation in this situation, we can see this as a way to break down barriers and bring people together that would not otherwise be possible.

Finally, I would like to thank the speakers for the excellent interventions, the members who helped form the panels, the Portugal Section, the Communications Team, and all participants for being part of this event. Despite being the first edition in a fully Virtual format, we believe that the event went quite well.

IEEE Nigeria Section Adopts Hybrid Educational System

John Funso-Adebayo & Gana Haruna, IEEE Nigeria Section

It is no longer news that the COVID-19 global pandemic has forever changed the way we learn and teach in schools around the world!

The Hybrid Educational System combines both physical and virtual

presences to achieve the much anticipated knowledge sharing and peer reviews. It is a new normal that has come to stay, and will be distributed across all ages and categories of learning/teaching.

It has actually brought the entire world to a converged Educational System, while utilizing an expanded content of Educational Resources. The IEEE Nigeria Section has deemed it fit to collaborate with the IEEE Learning Network in delivering Online Virtual Tools, to enhance productivity and reduce brain drain among all ages, due to the second wave of the global pandemic.

Region 8 Affinity Groups and Special Interest Groups

IEEE Region8 HAC/ SIGHT Leads at Par – Globally

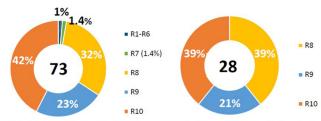
John Funso-Adebayo, IEEE Region 8 HAC/ SIGHT Past Chair

2020 was phenomenal throughout. It was a year that was not meant to be, as everything was shutdown, globally. The entire world has been reset 100 years backwards and all technologies and human lives are now obsolete, there is the need for renewed purpose-driven

options, in Advancing Technology for Humanity. The IEEE Region 8 Humanitarian Activities Subcommittee (HAC) was at the forefront of extending the available palliatives and funding opportunities to all the IEEE Sections within the Region8, through their respective IEEE SIGHT Groups.

To make it easier, Communities of Practice were setup for each project such as Medical, ICT, Agriculture, Education, and so on. Experts were engaged to mentor successfully approved projects while un-approved project proposals were reviewed with the respective applicants for future submission. For the first time, the IEEE Region8 had equally funded projects with the IEEE Region 10, in the Call 2-Proposals, for 2020. The 2021 Call for Proposals for HAC/SIGHT activities related to COVID-19 recently closed on March 1st 2021, therefore stay tuned for the approved projects from the Region.

The Results: Proposals Awarded Funding from Calls 1 & 2



Call #1 - 73 Proposals Awarded Funding at \$308.2k Total Funding

Call #2 - 28 Proposals Awarded Funding at \$130.2k Total Funding

Now: Development of Communities of Practice (CoPs)

Bringing together projects by thematic area to increase project impact, member engagement and professional development – All CoPs are currently underway

- Led by experienced IEEE volunteers
- Increase information sharing between related projects to speed learning curve
- Provide guidance and mentoring, when needed
- Develop and track common indicators
- Collect lessons learned to enable future replication and scaling



Upcoming events

EUROCON 2021

The 2021 IEEE 19th International Conference on Smart Technologies (EUROCON) with information about the Conference, the city of



Lviv and Partners. The event will take place on July 6 – 8, 2021 in hybrid format (virtual and in-person). In-person participation is available for limited number of participants.

IEEE EUROCON-2021 is dedicated to the first public performed test launch of the Lebedev MESM on November 6, 1950. MESM as an Experimental Electronic Calculating Machine was research in nature, in order to experimentally test the principles of constructing universal digital computers.

Paper submission closes on March 15th 2021. Please visit the website for more information:

http://eurocon2021.org/



AFRICON 2021

The IEEE AFRICON 2021 conference, in Arusha, Tanzania. The event will take place 13-15 September under the theme of "Contributing to the Industrialisation of Africa through Innovations in Science and Technology". AFRICON is an IEEE Region 8 flagship conference on the African continent. IEEE AFRICON 2021 will be held in Arusha. Tanzania, 13 - 15 September 2021. The conference is co-sponsored by IEEE Region 8. the IEEE Tanzania Sub-section and Nelson Mandela African Institution of Science and Technology. Topics cover the full area of IEEE, e.g., Communications, Networks, Electronics, Power and Energy, Mobile Computing, Cloud Computing, Industrial Applications, Artificial Intelligence, Nanotechnology, and E-learning. This conference will feature world-class plenary speakers, major technical symposiums, industry and academic panels, workshops, tutorials and invited tracks.

The deadline for paper submission is April 16 2021. For more information, please visit the conference website: https://africon2021.org/

IEEE Milestones

Dedication Ceremony for Milestone #212 - Galileo Ferraris - Rotating fields and early induction motors, 1885-1888

Antonio Savini, IEEE History Activities
Committee Italy Section

In 1884 when the American Institute of Electrical Engineers, forerunner of the current IEEE, was founded, the industrial revolution driven by electricity was fast developing. One year later in Turin, Italy, Galileo Ferraris, an Italian engineer and a professor of the Italian Industrial Museum (now Polytechnic) of Turin demonstrated the principle of producing a rotating magnetic field (Ferraris' field) by using alternating currents. He



Milestone ceremony (from left: A. Tenconi and M. Perino, professors of the Polytechnic, and T. Tambosso, past Chair of the Section; on the screen: S.K. Land, IEEE President) (courtesy of the

also showed experimentally that a conducting cylinder immersed in the rotating field was rotated by it. Both the principle and the experiment are at the origin of the design of ac induction motors and, in general, of ac rotating machines. Also as a consequence of this, the ac electrical technology soon replaced the dc one in electric power engineering.

This fundamental page in the history of electrical technology was the background of

the dedication ceremony for Milestone # 212 "Rotating fields and early induction motors, 1885-1888". This Milestone was the 51st Milestone dedicated in Region 8 and the 6th in Italy.

The dedication ceremony took place in Turin, Italy on 21 January 2021, having participants connected at a distance because of the current pandemic.

Right after these opening addresses, the life of Galileo Ferraris was presented by Marco Mezzalama, Emeritus professor of the Turin Polytechnic. Then Paolo Ferraris , past professor of the same Polytechnic, spoke on "The Galileo Ferraris importance for the Electrical Energy utilization through Alternative Currents", followed by Michele Tartaglia, again past professor at the same Polytechnic, who illustrated "Galileo Ferraris the professor and the founder of AEI —Italian Electrical Association". Finally, Gerard Capolino, professor of the University of

...continued on page 8 >

IEEE Milestones



Milestone plague unveiled (from left: A. Tenconi and T. Tambosso) (courtesy of the Turin Polytechnic)

Picardie, outlined the "Progress in AC electrical machines: from Galileo Ferraris principle to the actual technology". The ceremony ended up with the presentation of the Milestone bronze plaque by the IEEE President, who read the citation " "Galileo Ferraris, professor at the Italian Industrial Museum (now Polytechnic) of Turin, conceived and demonstrated the principle of the rotating magnetic field. Ferraris' field, produced by two stationary coils with perpendicular axes, was driven by alternating currents phase-shifted by 90 degrees. Ferraris also constructed prototypes of two-phase AC motors. Rotating fields, poly-phase currents, and their application to induction motors had a fundamental role in the electrification of the world". Then our IEEE President, at a distance, together with Tiziana Tambosso, past President of the Italy Section, and with prof. Alberto Tenconi, unveiled one of three copies of the plaque: two of them will be located in the Turin Polytechnic, in the Department of Energy and in the new Energy Center House respectively, while the third one will be placed in the Ferraris' house in the village where he was born.

The ceremony was attended at a distance by some 190 participants, including Life members of the IEEE Italy Section.

One can find out more about the dedicated Milestone by visiting the IEEE Global History Network . www.ieeeghn.org

Gravitational Wave Antennas (LiGO-VIRGO) milestone - An international event recognizing how massive antennas in the US and Italy confirmed Einstein's 1916 prediction about the nature of gravity

On February 3rd 2021, a 90-minute livestream event ran from 1630-1800 UTC, honoring the uniquely sophisticated devices that confirmed Einstein's prediction of gravitational waves 104 years ago.

This informational and entertaining program was intended for a wide audience. It included the dedication of an IEEE Milestone in 3 locations: Hanford, <u>Washington USA</u>, Livingston, Louisiana <u>USA</u>, and Cascina (Pisa), Tuscany, <u>Italy</u>. These are the sites of the two LIGO (Laser Interferometer Gravitational-Wave Observatories) antennas in the US, and the Virgo antenna at EGO (European Gravitational Observatory) in Italy.

Attendees learned about what led to construction of these antennas, whose kilometer-scale arms can detect the tremendous gravity resultant from the merger of black holes and binary neutron stars that are up to 3 billion light-years away.

Caltech's Rich Abbott led a discussion with Drs. Rainer Weiss, Kip S. Thorne and Barry C. Barish, who jointly were awarded the <u>2017 Nobel Prize in Physics</u> "for decisive contributions to the LIGO detector and the observation of gravitational waves."

The parallel development of the European Virgo antenna was addressed

by key Virgo antenna contributors Kathy Nary Man and Jean-Yves Vinet. Current Asian developments were described by Takaaki Kajita, principal investigator of Japan's KAGRA antenna, who shared the 2015 Nobel Prize in Physics "for the discovery of neutrino oscillations, which shows that neutrinos have mass."

Other contributors from the US, Italy and France, along with government and agency dignitaries, round out the program, which will conclude with the unveiling of bronze IEEE Milestone plaques at each of the 3 sites.

A wealth of information is at www.GWAMilestone.com



