

IEEE Quantum organizes events in the field of Quantum Computing

IEEE Quantum is an IEEE Future Directions initiative launched in 2019 that serves as IEEE's leading community for all projects and activities on quantum technologies. IEEE Quantum is supported by leadership and representation across IEEE Societies and OUs.

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Catia Bandeiras Region 8 News Editor in Chief

In 2022, despite current global challenges, we see more and more the possibilities for events with an in-person component, while most retaining the online format to allow those who cannot travel to attend events and connect to other Engineering professionals. Writing this newsletter to kick off the 2022 editions of Region 8 News is a great way to showcase some activities organized by our members in the last quarter of 2021, featuring some in-person component already, as an preamble for

more of those events in 2022. With the next Region 8 Committee Meeting in preparation, plenty of flagship conferences happening this year and 4 Milestone dedications in the Region to come in the first half of 2022, we look forward to seeing how the events will unfold. It was thanks to science, and the work and resilience of many engineers and IEEE members, that we now get to resume some in-person activities and to grow the community.

As this newsletter reports some events from the last months of 2021 as well, coinciding with Awards season, we are grateful to report on many members, Student Branches, Chapters, and Affinity Groups from the diverse IEEE member grades being recognized with these awards. From thriving Student Branches to Ambassadors for global IEEE initiatives, and Senior members, the brilliant leadership examples from the Region 8 community keep on coming. We can only wish We can only hope for more of these to come.

We hope that this newsletter also leaves you impressed with the activities and drive of our Outstanding volunteers and inspires you to find your journey on IEEE for 2022.

We also wish that this newsletter finds all readers in good health and safe, as well as their loved ones. Our thoughts are especially with those currently facing situations of humanitarian crisis.



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 volunteer editors with contributions from members all over Region 8.

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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 photos - which can be emailed to us to r8news@ieee.org or editors@ieeer8.org. Please find the guidelines for content submission here.

The deadline for content submission for the June 2022 issue is 15 April 2022

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Life Members

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SYP Congress Coordinator

Peter Magyar (Germany)

Mohammad Hossein Babaee

Voluntary Contribution Fund Andreas Koltes (Germany)

Barbara Vujkov (Serbia)

Women in Engineering Maria Alexandra Paun

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(Switzerland)

Region 8 Committee

Action for Industry John Matogo (Kenya)

Region 8 News Catia Bandeiras (UK & Ireland)

Awards & Recognition Magdalena Salazar Palma (Spain)

Standards Coordinator Tuncer Baykas (Turkey)

Chapters Andrejs Romanovs (Latvia) Strategic Planning Magdalena Salazar Palma (Spain)

Conferences Habib Kammoun (Tunisia)

Africa Council Chair Adel Alimi (Tunisia)

New Student Contests Initiative Lee Crudgington (UK & Ireland)

Careers New Initiativ Mohammed Amin (Egypt)

Publications and Communications Adeel Sultan (United Arab Emirates)

Diversity, Equity and Inclusion Mona Ghassemian (UK & Ireland)

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Preparations for the next Region 8 Committee meeting in full swing

IEEE Region 8 OpCom

The preparation of the 118th Region 8 Committee meeting continues, with the goal of receiving all delegates in Warsaw on 2 and 3 April. Of course, health and well-being of everybody are of the utmost importance and facilities will be provided for those that cannot attend in person. While the pandemic evolution is being monitored at all times, we are confident that the meeting will happen in person at the planned dates. More info to come!

IEEE Milestone: Giovanni Giorgi's Contribution to the Rationalized System of Units, 1901-1902 dedicated in Rome, Italy on 15 December 2021



"Measure for measure"

IEEE Milestone dedication ceremony "Giovanni Giorgi's contribution to the rationalized System of Units, 1901-1902"

MKS Ω

December 15th, 2021

Program

"Galileo Galilei" Technical - Industrial Institute,



Credits: IEEE Italy Section

IEEE Milestone Dedication ceremony honoring Giovanni Giorgi took place on 15 December 2021 at the Faculty of Engineering of the University of Rome "La Sapienza". The ceremony had the presence of the Magnificent Rector Antonella Polimeni and the Dean Antonio D'Andrea. 2021 IEEE Past President Toshio Fukuda participated virtually in the dedication ceremony.

IEEE conferred the prestigious Milestone recognition on Sapienza University, on the proposal of prof. Fabrizio Frezza of the Department of Information Engineering, Electronics and Telecommunications. The Milestone celebrates Giovanni Giorgi (1871-1950), engineer, scientist, and professor at the Sapienza University, where he taught Telegraphic and Telephone Transmissions and Measurements and Electrical Communications. Giorgi was recognized for his conception of the International System of Measurement Units. This system is universally used nowadays in the scientific and technical fields, as well as in everyday life.

The IEEE Milestone "Giovanni Giorgi's Contribution to the Rationalized System of Units, 1901-1902" Plaque, located at Via Eudossiana in Rome, contains the following Citation:

"Giovanni Giorgi proposed rationalizing the equations of electromagnetism. His proposal added an electrical unit to the three mechanical units of measurement (meter, kilogram, second). While he was a professor at the University of Rome, the International Electrotechnical Commission adopted a version of Giorgi's system. His ideas formed the basis of the universally adopted International System (SI) of units, currently used in all fields of science and engineering"

A Milestone is the most prestigious recognition bestowed by IEEE to celebrate places where astounding achievements in Electrical and Electronic Engineering took place. The Giovanni Giorgi Milestone is the ninth Milestone Dedication in Italy and the last of four dedications that occurred in Italy in 2021. The other IEEE Milestones dedicated in Italy in 2021 were "Rotating Fields and Early Induction Motors, 1885-1888", "Gravitational-Wave Antenna, 1972-1989" and "Multiple Technologies on a Chip, 1985".

In the afternoon, the event continued with the unveiling of a second plaque at the "Galileo Galilei" Technical-Industrial Institute, a high school which houses the "Fondo Giorgi". This is a collection of over 5000 documents, which includes the personal library of the scientist and vividly testifies his cultural formation in the first half of the twentieth century, together with his relations with the international scientific community.

The event was attended by the highest international and national IEEE authorities, including Toshio Fukuda, 2021 IEEE Past President, Antonio Luque, IEEE Region 8 Director, and Sergio Rapuano, IEEE Italy Section Chair. Two interdisciplinary technical sessions were held, with speeches by the IEEE Italy Section History Activities Coordinator and IEEE History Committee Member (Prof. Antonio Savini, University of Pavia), by the National Institute of Metrological Research of Turin (Dr. Luca Callegaro), by the Department of Philosophy (Prof. Nunzio Allocca) and by the Department of Physics (Prof. Valerio Parisi), as well as by librarians (Dr. Antonietta A. Zucconi, Sapienza; and Dr. Chiara Carlucci, INAPP).

The IEEE Milestones in Electrical Engineering and Computing program honors significant technical achievements in all areas associated with IEEE. Milestones recognize the technological innovation and excellence for the benefit of humanity found in unique products, services, seminal papers, and patents.

IEEE Region 8 Chapters of the Year Awards Winners for 2021 announced

We are proud to announce the R8 Chapter of the Year Awards Winners for 2021 (for the work in 2020):

Winning Technical Chapters in 2021 awards (for 2020 efforts): • Large Chapter: IEEE UK and Ireland Section, IEEE Power and

- Energy Society Chapter, Chair Jianing Li.
- Medium Chapter: IEEE Latvia Section, IEEE Communications, Microwave Theory & Techniques, Antenna and Propagation Joint Societies Chapter, Chair Arturs Aboltins.
- Small Chapter: IEEE Mauritius Section, IEEE Power and Energy Society and System Councils Joint Chapter, Chair Abdul Ahad Jhumka.

Winning Student Branch Chapters (SBC) in 2021 awards (for 2020 efforts):

- Large SBC: ESPRIT University IEEE Computer Society Student Branch Chapter, IEEE Tunisia Section, Chair Fedi Galfat.
- Medium SBC: ESPRIT University IEEE Industry Applications Society Student Branch Chapter, IEEE Tunisia Section, Chair Meriem Beji.
- Small SBC: Kyambogo University IEEE Photonics Society Student Branch Chapter, IEEE Uganda Section, Chair Dan Ahimbisibwe.

Winners in the category "Most Virtually Active and Adaptive Region 8 Chapter/Student Branch Chapter of the Hard COV-ID-19 Times" in 2021 awards (for 2021 efforts):

- Technical Chapter: IEEE Italy Section, IEEE Instrumentation and Measurement Society Chapter, Chair Leopoldo Angrisani.
- SBC: University of Manchester IEEE Power Electronics Society Student Branch Chapter, IEEE UK and Ireland Section, Chair Keyi Wang.

Congratulations to all winners!

IEEE Region 8 Chapter Coordination Committee:

Andrejs Romanovs, Albert Lysko, Aleksandar Mastilovic, Wynand Lambrechts, Matej Pacha, Toni Mattila, Anna Litvinenko, Muhammad Al-Barham, Rawan El Jamal.

Chapter Panorama: Everything you need to know about IEEE R8 Chapters in 2022 held as a 3-day virtual event

IEEE Region 8 Chapter Coordination Committee



Image credits: IEEE Region 8 Chapter Coordination Committee

The IEEE Region 8 Chapter Coordination Committee held the virtual event "<u>Chapter Panorama: everything you need to know about IEEE R8</u> <u>Chapters in 2022</u>" in January 2022.

The event was geared towards the IEEE Region 8 Chapter officers and members with the intent to deliver the most current and topical information about Technical and Student Branch Chapters.

The Chapter Panorama series was held in the 3 parts: Part I (18 January 2022), Part II (20 January 2022) and Part III (26 January 2022). Chapter basic activities and practices, selected Societies talks, Best Chapter practices from Chapter of the Year awardees were delivered each day and became a starting point for interesting and fruitful discussions.

Chapter Panorama was an amazing and a successful event that will go long ways in ensuring enhanced technical interests with the region, many thanks and congratulations for all attendees and organizers. More similar events have been planned later this year, so please consider the opportunity to join us in future!



Vincent Chan, IEEE Communications Society (ComSoc) Past President 2020-2021, was one of the invited speakers of Chapter Panorama. Image credits: Andrejs Romanovs

IEEE Region 8 Chapter Coordination Committee:

Andrejs Romanovs, Albert Lysko, Aleksandar Mastilovic, Wynand Lambrechts, Matej Pacha, Toni Mattila, Anna Litvinenko, Muhammad Al-Barham, Rawan El Jamal.

IEEE European Public Policy Committee (EPPC) hosted a Policy Webinar Looking at Grid Stability **Challenges Associated with the EU** "Fit for 55" Package

IEEE European Public Policy Committee

Webinar

On 1 December 2021 (16:00 CET), the IEEE European Public Policy Committee (EPPC) hosted a policy webinar exploring how recent EU energy and climate proposals may affect the stability of the electric power grid and what the policy and technology challenges and solutions to address this issue can be. In particular, in addition to hearing the views of the European Commission, participants were briefed on the work being carried out by the EPPC and The IEEE Standards Association (IEEE-SA) on aspects relevant to grid stability.

Speakers included representatives from the European Commission and the European Network of Transmission System Operators for Electricity (ENTSO-E), as well as IEEE EPPC and SA.

The webinar recording can be watched, along with the speaker presentations, at https://www.ieee.org/about/ieee-europe/public-policy-webinars.html

The IEEE European Public Policy Committee (EPPC) aims at expanding the dialogue between the European engineering community and European public authorities to enable technologists to more easily share their expertise and concerns and to enable European Union (EU) institutions and other policy stakeholders to more easily obtain technologists' input in matters relating to IEEE's fields of interest. For more information on IEEE fields of interest, please consult the IEEE entry in the European Transparency Register.

HISTELCON 2021 was held on 10-12 November 2021 under the theme "How computer technologies and telecommunication change society and economy"

Tony Davies. IEEE UK & Ireland LMAG Committee Member



Photo credits: HISTELCON 2021

HISTELCON is a flagship conference of the IEEE Region 8 held every two years on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. The seventh edition of the HISTELCON conference (HISTELCON 2021) took place in Moscow, Russia in 10-12 November 2021, with the support of the Ministry of Science and Higher Education and the Russian Academy of Sciences. The initial intention was to have a combination of a traditional face-to-face conference with online access via Zoom. The COVID-19 situation then meant that it had to be 100% by Zoom. The main topic of the HISTELCON 2021 conference was "How computer technologies and telecommunication change society and economy".

As a participant, I found that the online event was good, the audio and video quality good, and mostly they were able to keep good adherence to timing. Some very interesting papers were presented. Most papers were from Russia, Italy and France. Part of the theme was the development of computers in Russia and neighboring countries. The 70th anniversary since the commissioning of the first Soviet electronic computers was noted in the conference website, with the following two milestones. In Moscow, at the Power Engineering Institute of the Academy of Sciences under the leadership of Isaac Brook, M1 was created. In Kyiv at the Electrotechnical Institute of the Academy of Sciences of Ukraine, under the leadership of Sergei Lebedev, MESM was created.

The details are on the HISTELCON 2021 website, where the schedule of papers can be seen. The organizers intend to keep this website 'live' and plan to put the audio and video of the presented papers onto this site. That will not be in conflict with the papers themselves eventually going to IEEE Xplore, since IEEE Xplore takes only the finally approved printed papers. The option of making the audio and video presentations available on-demand on the website is welcomed by members who could not join HISTELCON 2021.

HISTELCON 2023 will be held in Florence, Italy in September 2023.

IEEE IAS ICCCA 2021 jointly organized by Aurel Vlaicu University of Arad, Romania and Galgotias University, India was held on 17-19 December 2021

Dr. Rabindra Nath Shaw, IEEE IAS ICCCA 2021 Conference Chair & Chairman, Oversight Committee



Image credits: IEEE IAS ICCCAS 2021, Dr. Rabindra Nath Shaw

The 2021 6th IEEE International Conference on Computing, Communication and Automation (IEEE IAS ICCCA 2021) was jointly organized by the Aurel Vlaicu University of Arad, Romania & Galgotias University, India on 17-19 December 2021. The conference was conducted virtually on the WebEx platform, adhering to the COVID-19 pandemic guidelines and restrictions.

ICCCA is a non-profit conference, and it provided an opportunity to the practicing engineers, academicians and researchers to meet in a forum to discuss various issues and its future direction in the field of Engineering and Technologies. The conference aimed to put together the experts from the relevant areas to disseminate their knowledge and experience for the relevant future research scope. The conference was financially sponsored by IEEE Industry Application Society (IAS) USA. There were 8 tracks in the conference covering areas of Computing, Communication and Automation Engineering.

This 6th version of ICCCA received a massive response of 1283 papers from more than 29 countries and regions. More than 200 reviewers form all over the world completed the review process of these papers. Finally, 168 best quality papers have been accepted with peer reviewed process. The paper acceptance ratio was 15%. In this threeday event 9 keynote sessions were held. The keynote speakers were all distinguished professors from all over the world (USA, UK, Australia, China, Japan, Canada). All 168 papers were presented virtually in 30 technical sessions over the three days. Two session chairs were present in each of these 30 technical sessions.

The inaugural session of ICCCA 2021 began with speeches of distinguished guest professors. The guests of honor present at the inaugural session were Prof. Ramona Lile (Rector, Aurel Vlaicu University of Arad, Romania), Prof. Georges Zissis (Vice-President/ Vice-Rector, Université Toulouse III, France), Prof. Saad Mekhilef (Distinguished Professor, Swinburne University of Technology, Australia), Prof. Vincenzo Piuri (Full Professor, University of Milan, Italy; 2021-2022 IEEE Region 8 Director-Elect; IEEE Fellow), Prof. Frede Blaabjerg (Professor, The Faculty of Engineering and Science Aalborg University, Denmark; IEEE Fellow), Manfred J. Schindler (Independent Consultant, Chief Technology Officer Anlotek Ltd.; IEEE Director & Delegate, Division IV; IEEE Fellow), Prof. Valentina E. Balas (Professor of Automation and Applied Informatics, Aurel Vlaicu University of Arad, Romania), Prof. Jianhua Ma (Faculty of Computer and Information Sciences, Hosei University Japan; IEEE Fellow), Prof. Fushuan Wen (Professor in Energy Systems, Tallinn University of Technology (TalTech), Estonia; IEEE Fellow), Prof. Bhim Singh (Professor, IIT Delhi, India; IEEE Fellow), Dr. Nishad Mendis (National Sales and Engineering Leader -Renewable Energy, Bureau Veritas Group Greater Melbourne, Australia). The vote of thanks was given by Prof. Dr. Rabindra Nath Shaw, Director, International Research & Collaboration, Galgotias University, India.



Image credits: IEEE IAS ICCCAS 2021, Dr. Rabindra Nath Shaw

The conference commenced with the keynote speech of Prof. Athula Ginige (Professor- Information Technology, Western Sydney University, Australia) with the title "Smart Computing enabled approach to achieve food security". This was followed by concurrent paper presentation panels 5 technical sessions. On completion of these five, another 5 technical sessions started. In the first day 48 papers were presented with the participation of more than 200 authors. The technical session was followed by keynote speeches by Prof. Jianhua Ma titled: "From Personal Big Data to Personal Life Assistance" and Manfred J. Schindler on the topic "Contemporary Applications of Positive Feedback in RF Systems".

The second day began with two back-to-back technical paper presentation session, followed by 10 technical sessions. On the second day 62 papers were presented with the participation of more than 200 authors. The keynote speeches started in the evening, including Prof. Jianwei Huang (The Chinese University of Hong Kong, Shenzhen CUHK-Shenzhen; IEEE Fellow) with the talk: "Incentive Mechanism Design for Crowd Systems", Professor Liming (Luke) Chen (Professor & Research Director for the School of Computing, Ulster University, United Kingdom; IEEE Fellow) titled "Computational Behaviour Analysis for User-centred Smart Cyber-Physical Systems" and ending with Prof. Deepa Kundur (Professor & Chair, The Edward S. Rogers Sr. Department of Electrical & Computer Engineering University of Toronto, Canada; IEEE Fellow), with the keynote "Analytics-Driven Cyber-Physical Security for a Converged Smart Grid:.

The third day also featured 10 technical sessions with 58 papers in total. At the end of the technical sessions, the following keynote speeches were delivered. Amarnath Raja (CEO and Co- founder, In-App, & IEEE MGA Committee Chair A&A) with the talk "IEEE Senior Membership - Benefits and Application Procedures", Prof. Laurence T. Yang (Department of Computer Science St Francis Xavier University, Canada; IEEE Fellow) with the talk titled "Cyber-Physical-Social Systems: Design, Analytics, Security and Privacy" and concluded by Dr. Ram D. Sriram (Fed) (chief of the Software and Systems Division, National Institute of Standards and Technology USA; IEEE Fellow) with "On Computational Challenges in Cyber-Physical-Social System Design". The keynote sessions were attended by a large number of students and researchers.

6th IEEE IAS ICCCA 2021 has emerged as a premier conference to bring researchers, scientists, and industry professionals to discuss issues and its future direction in the field of Computing, Communication and Automation Engineering and Technologies. This year, the conference was joined by a large number of researchers, students, and industry professionals from as many as 29 countries. ICCCA 2021 ended with closing ceremony concluded with the vote of thanks by the conference chair.

IEEE Smart Cities Week will have its first edition in March 2022 with IEEE Region 8 members appointed as Ambassadors



The IEEE Smart Cities Week 2022 is an event to present technologies and applications, share experiences & views with current and future Smart Cities solutions. This event comprises multiple local events worldwide organized by the 2022 IEEE Smart Cities Ambassadors.

Yearly, a week in March will be dedicated to various events organized by the Ambassadors, with technical, scientific, and humanitarian content, around the main verticals of smart cities: water, waste, transportation, healthcare, food, and energy.

Into the first edition, the IEEE Smart Cities Week 2022 will take place on 21-26 March, with two official events hosted by the Organizing Committee and more than 30 local events (virtual or hybrid) powered by Ambassadors from multiple countries. Some other events might also occur in additional weeks of the month of March, in case one week is not enough. This event is coordinated by the IEEE Smart Cities Marketing Committee, Conference & Events Committee, and Education Committee.

Within the scope of the IEEE Smart Cities Marketing Committee, the Ambassadors program was created in 2021 to increase IEEE Smart Cities' presence worldwide and foster discussions about the topic with a much broader audience. The goal is to build up the Ambassador' skills by organizing events for the first edition of IEEE Smart Cities Week 2022.

This program is an effort to create a group of volunteers focused on smart cities and interested in collaborating and disseminating the IEEE Smart Cities community and its initiatives. Additionally, the Ambassadors have the opportunity to improve their leadership and technical skills, increase their network, and receive mentoring from other smart cities leaders.

Fifty ambassadors were selected worldwide this year. Ambassadors from Region 8 include: Adnane Dalhi, Adnane Founoun (IEEE Morocco Section), Aleksandar Mastilovic (IEEE Bosnia and Herzegovina Section), Alireza Fereidunian (IEEE Iran Section), Ashkan Safari (IEEE Benelux Section), Emmanuel Innocent (IEEE Nigeria Section), Husam Samkari (IEEE Western Saudi Arabia Section), Irvine Lumumba (IEEE Kenya Section), Mustapha Hatti (IEEE Algeria Section) and Taha Mriheel (IEEE Libya Sub-Section). Congratulations to <u>all Ambassadors</u> and we look forward to hearing from our members on the organization on the first IEEE Smart Cities Week.

We invite you to check each of them and encourage you to join our committees.

IEEE Photonics Society Kenya Chapter Launch Event & Library set up in Kawangware – Kenya

Mercylyne Jepleting & Kithinji Muriungi, IEEE Photonics Society Kenya Chapter

After three years of preparation, <u>IEEE Photonics Society (IPS)</u> Kenya Chapter was finally petitioned, approved and formed in 2021. In addition to the Kenya chapter, IPS has two student branch chapters in Kenyatta University (KU) and Jomo Kenyatta University of Agriculture and Technology (JKUAT). The Kenya Section has been experiencing tremendous improvement and development where IPS KU student branch chapter was recognized as the <u>IPS Chapter of the Year 2020</u>



Photo credits: Kithinji Muriung

The theme of the 2021 World Children's Day (celebrated on 20 November each year) was '<u>A Better Future for Every Child</u>'. The IPS Kenya Chapter had the pleasure to celebrate it through a gracious library setup event with a social outreach-based launch ceremony under the coordination of the Society Chapter members, led by <u>Kithinji Muriungi</u> (IPS Kenya Chapter Chair who also serves as the IPS Global Strategy Representative in Africa under Globalization & Young Professionals Advisory committees) and Student Volunteers Team, on 20 November 2021. The main agenda of the event was to launch the IPS Kenya Chapter and also to facilitate the launch of a community library in Mti Moja Muslim area in Kawangware (Nairobi, Kenya). This event was organized in collaboration with <u>IEEE Kenya Section</u>, Taifa Teule Network, Maktaba Yetu, <u>Bestilaya</u> and <u>Maisha Yangu Organization</u>. In attendance was <u>Eng. Paul Kanja</u>, Advisor – IPS Kenyatta University SB Chapter.



IEEE Photonics Society Kenya Chapter ...

IEEE Photonics Society Kenya Society Chapter donated four (4) complete desktop computers to the library to enable the children to have access to e-learning materials, as well as to equip the library users with digital literacy skills. A well-versed team of volunteers set up the computers in the library. This brought smiles to the childrens' faces as they would now be able to access the internet to do research, connect, collaborate, learn and even play games. Over 1000 books were shelved during the launch-day and 2000 books collected later courtesy of this event. Nothing beats the joy of providing access to knowledge to the younger generation. IEEE Kenya Section also played a vital role by facilitating transport logistics, snacks, and the ceremony cake for the entire team and the children too. On the other hand, <u>Bestilaya</u> provided free access to their resourceful platform. What a lucky community these children are!



It is of importance to enable access to a conducive environment and academic resources to the young ones. This is especially relevant when they lack these both at school and at home. All was enabled through the Watoto Wasome ("Let Kids Learn") Project to benefit children in the area, enrolled members in the Maisha Yangu Organization and the general public. IPS Kenya Chapter hopes to keep its members engaged and also impact the community through initiatives which are transformative and impactful.

Special thanks to the partnering organizations, IPS Volunteers (Allan Koech and Sera Maina) and Kenya Section volunteers (Fiona Mugambi, Esborn Orina, Mukami Njeri, Mercy Ngulat) and all other participants and volunteers for their efforts in making the launch a success.



Photo credits: Kithinji Muriungi

Short Region 8 highlights

• The IEEE Government Engagement in Standards Program (GEPS) now has 40 representatives. Two of the organizations joining recently were the Ministry of Communication, ICT and Media (MINCOTIM), Government of Burundi, participating with the Ministry of Foreign Affairs to design and promote a national policy on communication and promotion of information technologies, and the Burundi Telecommunications & ICT Regulatory Authority (ARCT) of Burundi, which works to ensure the control and regulation of the telecommunications sector and to enforce relevant regulations.

Student Activities and Young Professionals News

Congratulations to the IEEE Region 8 Student Awards Winners of 2021! Submit your application to the 2022 IEEE Student Awards by 31 March



The outstanding work of the IEEE Region 8 Student Branches and Student Chapters was recognized in the 2021 awards. Please find the list of winners below and join us in congratulating the Student Branches!

IEEE Regional Exemplary Student branch Award:

- Tunisia Section: Higher School of Communication of Tunis (Sup'Com), IEEE ISSATSO SB, Ecole Nationale d'Ingenieurs de Sfax (ENIS), IEEE ENSI SB, IEEE FST Student Branch, IEEE INSAT Student Branch
- Portugal Section: IEEE University of Aveiro Student Branch, IEEE Universidade do Porto Student Branch, IEEE IST SB, IEEE Universidade de Coimbra Student Branch

... Continued From page 8

- Greece Section: Student Branch University of Thessaly Volos, University of Patras, IEEE NTUA Student Branch, IEEE Democritus University of Thrace Student Branch, Aristotle University of Thessaloniki Student Branch, International Hellenic University – Serres
- Turkey Section: Balikesir Universitesi, IEEE Mugla Sitki Kocman University Student Branch 2021, IEEE Hacettepe Student Branch, IEEE Beykent University Student Branch, IEEE Istanbul Technical University Student Branch, Istanbul-Univ-Cerrahpasa, IEEE Yıldız Technical University, IEEE Eskisehir Technical University Student Branch, IEEE Middle East Technical University Northern Cyprus, Celal Bayar University, IEEE Cankaya University Student Branch
- Jordan Section: University of Jordan, IEEE BAU, Hashemite University
- Italy Section: Politecnico di Torino IEEE Student Branch
- Lebanon Section: American University Beirut
- Qatar Section: IEEE Qatar University Student Branch
- United Kingdom and Ireland Section: GCU IEEE student branch, IEEE Edinburgh Student Branch, IEEE Student Branch at the University of Manchester
- Egypt Section: Arab Academy For Science & Tech Alexandria, Cairo University
- Western Saudi Arabia Section: King Abdulaziz University Male

We would also like to congratulate the winners of the Region 8 Student Branch Website contest. The first place was won by the IEEE INSAT Student Branch (Tunisia Section), the second place by IEEE An-Najah National University Student Branch (Palestine Sub-Section) and the third place went to IEEE ENSI SB (Tunisia Section). The IEEE An-Najah National University Student Branch was additionally granted with the 2nd place in the Global MGA Student Branch Website contest. Individual student and branch counsellor award winners from Region 8 can be found at https://students.ieee.org/awards/results/

IEEE Region 8 Women in Engineering also aims at recognizing its Student members. The Region 8 Women in Engineering Student Affinity Group of the Year Award and the Region 8 Outstanding Women in Engineering Student Volunteer Award will be attributed. The submission deadline for this award was 23 December 2021.

Every year, **IEEE Student Awards applications are accepted from 1 February to 31 March. Don't miss the date for 2022!** Awards include the Larry K. Wilson Regional Student Activities Award, IEEE Regional Exemplary Student Branch Award, Darrel Chong Student Activity Award, and IEEE Outstanding Branch Counselor and Branch Chapter Advisor Award. Make your application through the Student Awards Portal at <u>https://students.ieee.org/awards/</u>

2022 CALL FOR IEEE STUDENT AWARDS



IEEE SUPCOM Student Branch (Tunisia Section) organized events to increase awareness of artificial intelligence and cybersecurity in Tunisia

Imen Mahdi, IEEE SUPCOM Student Branch Chair

The IEEE SUPCOM Student Branch (Tunisia Section) has been very active in organizing and participating in several events connected to the local community. Two events hosted by the local student branch were highlighted for this edition of Region 8 News, along with the first prize in a local competition organized by IEEE Computer Society Tunisia Chapter

IndabaX Tunisia 2021: A step towards building the future of AI in Tunisia



IndabaX Tunisia Organizing Committee. Photo credits: Hichem Chekir

The IEEE SUPCOM Student Branch organized the second edition of deep learning IndabaX Tunisia in partnership with InstaDeep, one of the leading companies in the artificial intelligence (AI) sector and sponsored by GIZ Tunisia. It was a three-day hybrid conference that took place on 8-10 October 2021. With more than 500 participants, the 2021 edition was a step further to building the future of AI in Tunisia. The event's program included panels, roundtables, workshops, a networking space, and two online Hackathons.

When we first started planning for our conference, we wanted to organize an event that included everyone from the Tunisian AI community. Whether you were just a beginner who's still learning and setting his first steps in this field, or you're already advanced and looking for an opportunity to improve your skills and network or even if you're just curious about the advances in the AI sector, everyone found what they were looking for. This spirit of inclusiveness covered all parts of the event. In fact, in partnership with Zindi, we organized two hackathons. The first was beginner friendly and was purely educational and a second that was more advanced and competitive. We even held two round tables: one for students who are seeking a Masters' degree in AI or machine learning (ML) in Tunisia and another one for young professionals seeking to join an AI-centric company. Moreover, we invited international speakers who gave informative talks and workshops about the latest advances in the field including

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Karim Beguir, Amanda Minnich, Tristan Cazenave, Will Pearce, Daniel Voigt Godoy, Kaouther Boussema and Mouafek Ayadi.

The most interesting thing about this edition is that we simultaneously held 10 different meeting rooms in ten universities across Tunisia. It was an opportunity for students to gather and watch the streaming together. Although each room was limited to 25 students to respect the sanitary procedures, everyone was welcome to attend online on the streaming platform. This was only made possible thanks to our ambassadors from Student Branches in IEEE Tunisia Section.

In conclusion, IndabaX Tunisia 2021 was a huge success. Organizing two hackathons, 10 gathering rooms, and managing the online event with the different activities planned all at the same time was never an easy task. But, however challenging it was, our team managed to deliver an exceptional experience for everyone who attended.

e-safety Club: Raising Awareness about Cyber-security



IEEE SUPCOM Women in Engineering Affinity Group members play a game about cybersecurity with children from a local school in Tunisia. Photo credits: Chayma Boukthir

Cyber-Bullying is a serious concern that should be addressed from an early age. That's why our IEEE SUPCOM WiE Affinity Group worked during December 2021 on raising awareness about cyber-security among children in the school of Ibn Rachik in Mourouj 3 in Tunisia. We were very happy to have been received with such enthusiasm and genuine curiosity.

As a start, we performed a small and interactive play for them. The plot was about a group of aliens who decided to plan an invasion to kidnap the kids. Their evil plan was to fool them through the internet. After doing a quick research on every kid using their social media account, they managed to know a lot about their interests. The aliens used fake accounts on Facebook to chat with them and pretend to get them their favorite things if they meet them in person. Not knowing who they were talking to, the kids fell easily into the trap. The play aims to manifest how dangerous the internet could be in an easy and captivating way.

After the play, the kids wrote the morals they extracted from the show on sticky notes and some even elaborated them on stage. To test their comprehension of the topic, we also did a mini quiz to which the kids responded by lifting a card saying YES or NO.

In addition to that, we hosted a workshop for the kids' parents to introduce them to some useful tools. We gave them technical tips and

tricks on how to supervise their children while using the Internet and how to prevent them from accessing some harmful websites. The journey ended with the launch of the new e-safety Club in the school. As a first activity of the club, the kids hung posters giving advice on internet safety.

At the end, this was all a fun journey for both the school kids and us. We hope that through this club they will continue to raise awareness and share what they learned.

IEEE SUPCOM CS Chapter won the Computer Society challenge at the IEEE Tunisian SYP Congress 2021



IEEE SUPCOM CS Chapter members receive the first prize of the Computer Society Tunisia Section Chapter challenge during the IEEE Tunisian SYP 2021. Photo credits: ENIS PRESS

During its participation in the 9th edition of IEEE Tunisian Students and Young Professionals Congress on 19-21 December 2021, the IEEE SUPCOM CS Chapter won first place in a challenge launched by the Computer Society Chapter Tunisia Section. The challenge consisted on finding a technical solution using advanced technologies to help governmental institutions reduce delays, bureaucratic procedures, the large number of required documents and improve their public services in general.

Our team chose to work on official documents' falsification. In fact, last August, the Syndicate of the National Security Region in Tunisia published on its page that 30k forged scientific certificates were confirmed. It was also discovered later this year that more than 100 teachers and substitute teachers were affected by document falsification. So, how can we ensure with 100% certainty the integrity and authenticity of these files?

To solve this major problem, we developed a decentralized application called Verifiny. It allows public institutions to add an official document's fingerprint to the blockchain and then send the digital file to its owner. This way, any third party who receives a digital document supposedly issued by a governmental institution can verify its authenticity through our application. Any change in the file will automatically change its fingerprint and thus won't be verified.

Our talented members have put together a solution that combines their different expertise in various fields such as cyber security, blockchain technologies, web3, and front-end web development. Verifiny is based on multiple security disciplines like RSA encryption and distributed networks.

Through this experience, we had the chance to learn more about blockchain technologies and the endless opportunities and promises it offers. That's why, we want you, dear reader, to think about all the challenges that can be solved with it and the role it will play in shaping our future.

Upcoming conferences

13th IEEE Global Engineering Education Conference (EDUCON) (Tunis, Tunisia & online)

<u>IEEE EDUCON 2022</u> will be hybrid (online and in-person), in Ramada Plaza Tunis Hotel, Tunisia, on 28-31 March 2022.

The IEEE Global Engineering Education Conference (EDUCON) 2022 is the thirteenth in a series of conferences that rotate among central locations in IEEE Region 8 (Europe, Middle East and Africa). EDUCON is the flagship conference of the IEEE Education Society. EDUCON 2022 is organized by the IEEE Education Society, IEEE Tunisia Section, and IEEE Region 8, in partnership with ALECSO, University of Sfax and Virtual University of Tunis.

Held every year since 2010, EDUCON provides an opportunity to scientists, professional engineers, and students to present their work, publish their results, exchange ideas and network for future scientific and industrial collaborations.

The conference will continue to serve as a catalyst for connecting local and international stakeholders hence adding value to the global dialogue on how to positively contribute to the solution of the world's engineering education.

Accepted and presented papers will be published in the conference and will be submitted to the IEEE Xplore Digital Library and appear in the Conference Proceedings Citation Index (CPCI) - an integrated index within Web of Science. Papers in all areas of engineering education were invited with particular emphasis on the main focus of the conference and on current issues in engineering education.

More information is available in the conference website: <u>http://www.educon-conference.org/</u> and via email through info@ educon-conference.org

IEEE 7th International Energy Conference (ENERGYCON) (Riga, Latvia & online)



The <u>IEEE International Energy Conference (ENERGYCON)</u> covers a broad range of electric power and energy systems topics and is one of the flagship conferences of IEEE Region 8. The 7th ENERGYCON will take place in Riga, Latvia on 9 -12 May 2022. The conference will be organized in a hybrid format. ENERGYCON 2022 is organized by the Riga Technical University, IEEE Latvia Section, and IEEE Region 8.

Every year computer scientists, software developers, information technology professionals, physicists, medical doctors, and many others in addition to IEEE's electrical and electronics engineering core gathers to appreciate and discuss the advancements in the industry that would benefit the humanity. 2022 IEEE ENERGYCON will welcome scientists, professional engineers and engineering students to present their work, publish their results, exchange ideas and network for future scientific and industrial collaborations.

All accepted papers and oral (or poster) presenting at the IEEE ENERGYCON-2022 will be submitted for inclusion in IEEE Xplore Digital Library as well as other Abstracting and Indexing (A&I) databases – Scopus, Web of Science and etc. "No-show" papers won't be submitted for inclusion in IEEE Xplore Digital Library. Virtual participation is allowed. Papers were invited on all topics related to electric power and energy systems.

In the scope of the conference, there will also be a postgraduate (PG) Forum. The objective of the forum is to create a stimulating environment for graduate students to discuss their on-going research work with peers and experienced researchers from academia and industries. The target audiences of the forum are PhD students, recently graduated PhDs, supervisors, conference attendees, and master students planning to pursue PhD studies in the related area of the ENERGYCON. The forum will be organized as a poster session. The Elias Kyriakides Student Paper Awards will be presented to the author of the best student papers.

Registration to the conference opens on 1 March 2022. is available in the conference website: <u>http://ieee-energycon2022.org</u>

IEEE 21st Mediterranean Electrotechnical conference (MELECON) Hybrid (Palermo, Italy & online)



We cordially invite you to participate and submit your research to the 21th Mediterranean Electrotechnical Conference IEEE MELECON 2022, taking place in an hybrid format, with the in-person component in Palermo, Italy on 14 - 16 June 2022. MELECON 2022 is organized by the Universita degli Studi di Palermo, IEEE Italy Section, and IEEE Region 8.

MELECON 2022 is a major international forum presenting design methodologies, techniques and experimental results in emerging electro-technologies. It is one of the flagship conferences of the IEEE Region 8 with participants from all over the world. It is expected to bring together researchers and practitioners from different fields of Electrical Engineering. The technical program will include plenary sessions, regular technical sessions, special sessions, panels, tutorials,

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and special events devoted to students and young professionals, Women in Engineering, entrepreneurs and industries.

Authors were invited to submit papers related to Smart Energy, Smart Industry, Smart Healthcare and Smart Digital Communities. Extended versions of papers presented at the conference, which fall within the scope of the IEEE Industry Application Society (Technical Sponsor of IEEE MELECON 2022) may be submitted to the IEEE Transactions on Industry Applications for publication. Extended version of the best papers presented at the conference, which fall within the scope of the IEEE Journal of Translational Engineering in Health and Medicine may be submitted for publication to the JTEHM. Extended versions of accepted and presented papers will be eligible for further review in IEEE PES Transactions (with minimum 40% of new contents). When submitting, the authors must indicate that it is an accepted conference paper for IEEE MELECON 2022 and include the conference title and date. The paper submission deadline was 28 February 2022. Notifications of acceptance of submitted papers will be sent on 11 March 2022, with camera-ready papers submission by 8 April 2022. Early registration will open on 18 April 2022.

The finalists of the IEEE Region 8 Student Paper Contest will also be invited to present their papers at IEEE MELECON 2022, with all expenses covered by IEEE. The top three finalists will receive cash prizes \$800, \$500, and \$200 respectively and the winner's SB will be awarded \$ 250. All finalists' papers will also be published in the Conference Proceedings and in the IEEEXplore Library. The deadline for submissions to the Student Paper Contest was 15 December 2021.

Please find all information about the conference at:

http://melecon2022.org and more details about the main tracks and sessions at: https://melecon2022.org/tracks-and-sessions/

ELEKTRO 2022 (Krakow, Poland & online)



ELEKTRO 2022 will be held with technical co-sponsorship of IEEE Region 8, IEEE Czechoslovakia Section, IEEE Poland Section and IEEE Poland Section Computer Chapter on 23-26 May 2022. The conference will be hybrid, with the in-person component in Krakow, Poland.

The conference is the fourteenth of the series of international conferences which began in 1995 initially as a national conference with international participation. The conference is organized by the Faculty of Electrical Engineering and Information Technology, University of Žilina, every two years. The purpose of the conference is to provide an international forum for researchers and professionals interested in electrical and electronic engineering, information and communication technologies as well as interdisciplinary areas with the main attention to the conference topics.

Accepted papers will be published on conference proceedings and will be submitted to IEEE Xplore and Scopus database. Selected papers will be published in international scientific journals indexed in Scopus database. Since 2014 publications of the ELEKTRO conferences were indexed in the databases Web of Science, Scopus and IEEE. Also, publications from the ELEKTRO 2022 conference will be requested to be evaluated and covered in the mentioned databases. Authors were invited to submit papers on the topics of Informatics and Information Technologies, Power Electronics and Energy Systems, Materials and Technologies in Biomedical Engineering, Robotics, Cybernetics and Mechatronics, and Education in Electrical Engineering and ICT.

The early registration deadline is 28 March 2022. More information on the conference is available in <u>https://elektro.uniza.sk/</u>

27th IEEE Symposium on Computers and Communications (ISCC 2022) (Rhodes Island, Greece & online)

Welcome to the <u>27th IEEE Symposium on Computers and Communications</u> (ISCC). The conference will be held on 30 June – 3 July 2022 in an hybrid format. Remote presentations will be allowed, even though in-person attendance is encouraged.

The first IEEE Symposium on Computers and Communications (ISCC) was held in 1995 in response to the growing interaction between the fields of computers and communications. ISCC takes place annually, usually in the Mediterranean region, in locations such as Egypt, Greece, France, Tunisia, Portugal, Spain, Morocco, Italy, and Brazil. In 2022, the Symposium is going to take place in Rhodes Island, Greece.

ISCC sessions will include presentations on new research results and tutorials. Papers describing original works were invited in any of the computer and communications areas covered by the Call for Papers, which included areas such as 5G networks, Security and Privacy, Internet of Things (IoT), Vehicular Networks, Artificial Intelligence, Cloud Computing, Wireless Networks, Services and Protocols, Optical Networks, and others. Accepted papers will be included in the ISCC 2022 Conference Proceedings, which will be subject to independent peerreview procedures for quality and may be eligible for inclusion in the IEEE Xplore® Digital Library. Merit, relevance, and originality will guide paper acceptance. The ISCC Proceedings have been indexed in the past by ISI, dblp and Scopus. This makes the ISCC conference one of the publication venues with very high visibility and impact in both Computer and Communications areas. Best Paper Award and Best Student Paper Awards will be presented.

ISCC 2022, in its 27th edition, will provide an insight into the unique world stemming from the interaction between the fields of computers and communications. ISCC 2022 will provide an international technical forum for experts from industry and academia to exchange ideas and present results of on-going research in most state-of-the-art areas of computers and communications.

Notifications of acceptance of submitted papers will be sent on 15 April 2022, with camera-ready papers submission by 6 May 2022.

Please find all information about the conference at: https://iscc2022. unipi.gr/ and more details about the main tracks and sessions at: https://iscc2022.unipi.gr/cfp2022.php

2022 IEEE International Workshop on Sport, Technology and Research (IEEE-STAR) Cavalese, Italy



Sport is one of the most dynamic and promising sectors in terms of investment in research and innovation. Grounded on this evidence, the core purpose of the IEEE-STAR workshop is to foster research in technological innovation and excellence in sports equipment, technical materials, training technologies and performance monitoring, fan engagement and healthy lifestyles. By doing this the IEEE-STAR workshop aims to enhance the practice of sport and increase physical activity levels across the population and highlight the role of sport as a vehicle for socio-economic development.

IEEE-STAR will take place in Cavalese, Italy on 6-8 July 2022. The event features a comprehensive technical program including panels, technical sessions, and innovative industrial demonstrations. Conference tracks include Smart Sports Facilities and Fan Engagement, Sport Performance, and Active Lifestyles.

Authors are invited to submit papers by 1 March 2022. Accepted papers will be included in the conference proceedings only if at least one Author is registered (student fees excluded), no exceptions. Proceedings papers need to be presented at the event to assure their submission for inclusion in the IEEE Xplore digital library.

More information on the conference can be found in https://event.unitn.it/ieee-star2022

44th Annual Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2022) Glasgow, United Kingdom



The IEEE Engineering in Medicine and Biology Society is pleased to announce that the 44th International Engineering in Medicine and Biology Conference will be held in Glasgow, United Kingdom from 11-15 July 2022. This conference is themed, "Biomedical Engineering transforming the provision of healthcare: promoting wellness through personalized & predictable provision at the point of care". The scientific tracks will cover the standard topics of the EMBS technical committees with an additional topic, consistent with the conference theme. Alongside the scientific sessions, there will be an exhibition comprising biomedical engineering companies, publishers, SMEs, start-ups, funded biomedical research, and Biomedical Engineering programs, Institutes, and Universities. The conference will provide networking opportunities for engineers, clinicians, scientists, and entrepreneurs, as well as for students and young professionals. The conference program consists of mini-symposia, workshops, invited sessions, oral and e-poster sessions, sessions for students and young professionals, and sessions for clinicians and entrepreneurs.

EMBC 2022 is moving forward as an in-person event. If you are an Author of an accepted paper, you will be required to present your paper in person. The conference is not able to entertain a hybrid option, a remote presentation and/or the submission of a video presentation. Authors who are unable to travel due to country and/or institution restrictions may withdraw their submission, with no penalty, by 30 April 2022.

Authors are invited to submit contributions in diverse themes related to Engineering in Medicine and Biology. The deadline for full contributed paper submissions was 31 January 2022. However, the deadline for submission of 1-page papers (Research Poster Papers) is 8 April 2022. More information on the conference can be found on https://embc.embs.org/2022/.

IEEE International Conference on Omni-Layer Intelligent Systems (IEEE COINS 2022) (Barcelona, Spain & online)



Are you interested in taking part in shaping and adding new dimensions to the future IoT and AI ecosystem? Are you seeking to harness the opportunities afforded by the tsunami of new technologies? Do you want to stay ahead and learn about the biggest digital technologies that are radically shifting the paradigm? or just curious about what IoT, AI, Big Data are all about and how they impact every aspect of our life, society, and business? IEEE COINS (https://coinsconf.com/) is the right place to be. IEEE COINS brings together experts in Digital Transformation (from AI and IoT to Cloud, Blockchain, Cybersecurity, and Robotics) from around the globe. IEEE COINS includes a multi-disciplinary program from technical research papers, to panels, workshops, and tutorials on the latest technology developments and innovations addressing all important aspects of the IoT & AI ecosystem. IEEE COINS 2022 will take place as an hybrid event in 1-3 August 2022, with the in-person component in Barcelona, Spain.

IEEE COINS solicits papers and proposals accompanying submissions for presentations in the Vertical and Topical Tracks. The tracks are very

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diverse, ranging from IoT, bigdata, artificial intelligence, distributed ledger technologies and blockchain, intelligent robots and systems, smart cities, industry 4.0, e-Health, and many others. IEEE COINS will publish accepted papers in the conference proceedings and the proceedings will be submitted to the IEEE Xplore Digital library and indexing services.

The conference will also feature a PhD forum, hosted by the IEEE Council on Electronic Design Automation (CEDA) and will be organized as a poster session. The forum will provide an opportunity for graduate students to explore their research interests in an interdisciplinary workshop, under the guidance of a panel of distinguished experts in the field of Computer-aided design and Circuit and Systems for Internet of Things (IoT), Artificial Intelligence (AI), Big Data and Security/Privacy. The Ph.D. forum aims at bringing together young Ph.D. students to exchange their research, ideas, and experiences.

The paper submission deadline is 31 March 2022. Find more information on the conference at https://coinsconf.com/

Upcoming Milestone Events

IEEE Milestone 'String Galvanometer to Record a Human Electrocardiogram, 1901-1905', IEEE Benelux Section



The prestigious IEEE Milestone Award will be dedicated on 8 April 2022 to the invention of the string galvanometer by Willem Einthoven. The event will take place at the Leiden University Medical Center (LUMC) in Leiden, the Netherlands.

The milestone plaque will be unveiled at LUMC, where the first human electrocardiogram was recorded in 1905 from a patient connected via a telephone line to the string galvanometer which was placed in the laboratory of Willem Einthoven (1886-1927). The development of the string galvanometer by Einthoven marked the starting point of electrocardiography as a major clinical diagnostic tool. Willem Einthoven, "Father of Electrocardiography", was awarded the 1924 Nobel Prize in Physiology or Medicine.

Experts in the field will present the technical and medical background of the string galvanometer and the electrocardiograph. Contemporary and future possibilities of electrocardiography and electrophysiology will also be discussed. At the end of the symposium, the renowned 'Einthoven lecture' will be given by professor Katja Zeppenfeld.

Participants will learn how the string galvanometer was developed at the time and gain insight concerning the impact of its development and thus the impact that the electrocardiogram (ECG) has had on the current possibilities for diagnosis and treatment of arrhythmias. Finally, those attending will gain understanding of the possibilities for the future of electrophysiology and the latest developments in diagnosis and treatment of ventricular arrhythmias.

The IEEE Milestone dedication plaque will be unveiled during the event with the presence of Susan Kathy Land, IEEE 2022 Past President. More information on the event and registration can be found at https://www.ieee.org/about/history-center/events.html

IEEE Milestone 'Active Shielding of Superconducting Magnets for MRI, 1984-1989', IEEE UK & Ireland Section

The UK & Ireland Section has been awarded an IEEE Milestone plaque to celebrate a major development in superconducting magnet technology. The dedication ceremony will be held at the Siemens Magnet Technology factory at Enysham, near Oxford, on 16-17 June 2022.

This dedication will celebrate where the first actively shielded superconducting magnets for diagnostic Magnetic Resonance Imaging (MRI) use were conceived, designed, and produced. Active shielding reduced the size, weight, and installed cost of MRI systems, allowing them to be more easily transported and advantageously located, thereby benefiting advanced medical diagnosis worldwide.

IEEE Milestone 'Atlas Computer and the Invention of Virtual Memory 1957-1962' and 'Manchester University "Baby" Computer and its Derivatives, 1948-1951', IEEE UK & Ireland Section

The IEEE History Committee has approved two IEEE Milestone Awards for major developments in computer history which took place in Manchester. Bronze plaques marking these awards will be unveiled in Manchester on the afternoon of 21 June 2022, the 74th anniversary of the first program run by the Manchester Baby computer.

There will also be a morning event in the Manchester Museum of Science and Industry at which the replica Baby computer will be demonstrated by a team of volunteers and there will be a display of material from the Ferranti archives.

The two awards are for the Manchester University "Baby" Computer and its Derivatives, 1948-1951 and the Atlas Computer and the Invention of Virtual Memory 1957-1962. After the plaque unveilings there will be talks describing these two developments and the reasons why they are considered historically important.



Tom Kilburn & Freddie Williams at Baby's console. Photo credits: University of Manchester

On 21 June 1948 the "Baby" became the first computer to execute a program stored in addressable read-write electronic memory. "Baby" validated Williams-Kilburn Tube random-access memories, later widely used, and led to the 1949 Manchester Mark I which pioneered index registers. In February 1951, Ferranti Ltd's commercial derivative became the first electronic computer marketed as a standard product delivered to a customer. The plaque will be located at the University of Manchester to honor the location of the "Baby" computer.

The Atlas computer was designed and built by a joint University of Manchester/Ferranti Ltd team in this building. Its most significant new feature was the invention of virtual memory, which allowed memories of different speeds and capacities to act as a single large fast memory separately available to multiple users. Virtual memory was refined over time to become a standard feature of generalpurpose computers.



The University of Manchester Atlas. Photo credits: University of Manchester

More details and a provisional schedule of the event is detailed in <u>the IEEE UK & Ireland Section website</u> and registration information will be circulated early in 2022.

IEEE Initiatives

Invitation to 2022 IEEE Vision, Innovation, and Challenges Summit and Honors Ceremony in San Diego, California, United States on 6 May 2022

Lynn Frassetti, Senior Awards Presentation and Communications Specialist, IEEE Corporate Activities – Awards



Join us at the IEEE VIC Summit and Ceremony – IEEE's premier event that highlights the innovation and creativity of engineering, science, and technology through provocative, educational, and inspiring talks with a vision for the future, opportunities for innovation, and the challenges to overcome. In 2022, you will hear from experts discuss the impacts of technology in the areas of digital twins/smart cities, cloud computing, encryption/security, machine learning, aerospace technology, IoT, and more.

IEEE Young Professionals will host a Red Carpet Reception before we kick-off the Honors Ceremony, the evening of celebration of renowned icons whose work has served as a catalyst and propelled the major advances we have today.

Pre-Event: Qualcomm will host an "Evening of Innovation," a panel discussion with the 2022 IEEE Medal and Recognition Recipients highlighting their journey, innovations, and their insights on emerging technologies and discussing the impacts on the future of humanity on 5 May 2022 at Qualcomm Headquarters in San Diego, California.

View all the 2022 IEEE Medal and Recognition Recipients that will be honored at the Ceremony Gala on Friday, 6 May.

IEEE Volunteering

IEEE members' free time is limited. Some of the us might want to be active IEEE volunteers but with the shift to working and managing their careers, we find it challenging to volunteer, continuously or on a regular basis. The IEEE Volunteering platform helps address such needs by introducing a degree of flexibility to volunteer within IEEE. The platform allows you as a member to advertise and search for volunteering opportunities, based on short- or long-term availability, local or remote preferences, or your unique skills as an individual.

To get started in your IEEE Volunteering journey, visit the platform at https://volunteer.ieee.org/

IEEE Volunteering

Where opportunity meets flexibility.



Call for Nominations: IEEE Medals & Recognitions

Lynn Frassetti, Senior Awards Presentation and Communications Specialist, IEEE Corporate Activities – Awards



Nominations are open 1 December 2021 – 15 June 2022 for IEEE Medals and Recognitions at <u>https://ieee.secure-platform.</u> com/a/page/ieeemedals recognitions techfieldawards/ieee medals for Medals and <u>https://ieee.secure-platform.com/a/page/ieeemedals recognitions techfieldawards/ieee recognitions</u> for Recognitions. Make this the year you nominate a candidate! For more information e-mail <u>awards@ieee.org</u>.

IEEE Quantum organizes events in the field of Quantum Computing

Terence Martinez, Program Director, Future Directions IEEE Technical Activities; Candace Culhane, Travis Humble and Hausi Müller, Co-Chairs IEEE Quantum



IEEE Quantum is an IEEE Future Directions initiative launched in 2019 that serves as IEEE's leading community for all projects and activities on quantum technologies. IEEE Quantum is supported by leadership and representation across IEEE Societies and OUs. The initiative has developed a project plan to address the current landscape of quantum technologies, identify challenges and opportunities, leverage and collaborate with existing initiatives, engage the quantum community at large, and sustain the Quantum Initiative in the long-term.

IEEE Quantum Computing Innovation Summit

The IEEE Quantum Initiative presented a new virtual event of innovation-centered talks on the business of quantum computing. The IEEE Quantum Computing Innovation Summit was held on 10 January 2022, and featured talks from leaders across the quantum computing industry. The event recording can be viewed on-demand on the event website https://quantum.ieee.org/conferences/quantum-computing-innovation-summit

Quantum CEO Summit on Quantum Computing

This on-line event took place on 1 December 2021, featuring unique insight from 20+ leaders in the global quantum computing community is now available to view on-demand. On-demand keynote talks and moderated roundtable discussions bringing together industry experts and thought innovators from around the world can be seen at the event website <u>IEEE Quantum CEO Summit on Quantum Computing</u>.

Quantum AI Sustainability Symposium

In case you missed it, you can still register to view our recent <u>Quantum AI Sustainability Symposium</u> on-demand. This special virtual event featured forward-thinking thought leaders defining the future of Sustainability Excellence, Quantum Computing, and Artificial Intelligence. Registration is free.

Quantum Executive Series

The Quantum Executive Series is a live virtual series featuring exclusive interviews with executives and decision makers in the quantum industry. <u>Visit the Quantum Executive Series</u> page to watch the 20 January 2022 interview with Dr. Mehdi Namazi, Co-founder and Chief Science Office of Qunnect Inc.

Quantum Computing Education - Workforce Development

The newest IEEE Quantum on-line learning resource, Workforce Development, has over a dozen free courses available to view ondemand. The series, hosted by Maëva Ghonda, IEEE Chair, Quantum Computing Education for Workforce Development Program, offers professionals in the quantum technology industry courses covering a wide range of topics. <u>View On-Demand Courses</u>

Visit the <u>IEEE Quantum Web Portal</u> for more information on our activities, and follow us on <u>IEEE Collabratec</u>[®], <u>Facebook</u>, <u>Twitter</u>, and <u>LinkedIn</u> for up to date community news and announcements. We look forward to your participation.

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