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IEEE Region 8 Student and Young Professional Congress 2022 Tunis



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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@ieeer.org or editors@ieeer8.org. Please find the guidelines for content submission [here](#).

The deadline for content submission for the December 2022 issue is October 15, 2022.



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IEEE Region 8 Student and Young Professional Congress 2022, Tunis

Rafed Jabri, Khalil Ben Salah, Hend Kmiha, Khaldoun taktak, and Issam Jebnoui, IEEE R8 SYP 2022 Congress Organizing Committee, with Vinko Lesic, IEEE Region 8 News

Photographs by Mohamed Amir Jouini, Haroun Abessi, Amira Bechiekh, Elyes Belghith, Chedli Ben Azizi, Adam Bechiekh, Houyem Mokline, Anis Ben Ghanem, Ismail Abdelkefi

Where the most different minds meet, and the most brilliant ideas appear.

For the first time in its history, IEEE INSAT student branch hosted the IEEE Region 8 Student and Young Professional Congress, held in Mouradi Gammarth Hotel, Tunis, during 3-7 August 2022. The IEEE R8 SYP Congress is one of the largest events in Region 8, taking place every two years and gathering students and young professionals from whole IEEE Region 8 and wider. This congress was a great opportunity for the participants to engage in networking, technical activities through plenary sessions, workshops, fair, but also for the cultural exchange.

This year, the tradition was passed to Tunisia to hold again a long-awaited in-person edition after a long period of virtual activities. The organizing team was committed to bring an exceptional edition, and the work of over six months finally culminated in five days of the congress imbued with a Tunisian flavor. The participants could experience different aspects of Tunisia by visiting the city of culture for the opening ceremony, or archaeological sites of Carthage, as a fine touch added to the congress vision of knowledge exchange and networking of members.

Congress numbers

With 147 participants and 68 guests and speakers coming from over 40 countries, the Region 8 SYP 2022 had the total of 215 attendees, gathered in the Mouradi Gammarth Hotel for five days. Each one of them attended 7 out of 42 available workshops and keynote talk sessions in two days. Every time slot had six sessions going on in parallel. On top, three plenary sessions of highest IEEE officials were held on the 4th day of the congress. Every night was marked with a unique social event accompanied by cultural experiences, awards sessions and, of course, networking as the pre-requisite of each congress minute. To many of the participants, the official program was not nearly the end of the congress happenings, and all of them were unhesitatingly and unquestionably choosing old and new friends over a good night sleep.



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IEEE R8 Robot Championship 2022 – Design, Build, Compete

Interview with Conrad Attard, Chair of IEEE Region 8 Professional and Educational Activities and Deputy Dean at Faculty of Information & Communication Technology of University of Malta, by Vinko Lesic, IEEE Region 8 News



Image credits: IEEE Malta Section

What is the IEEE Region 8 Robot Championship?

The IEEE Region 8 Robot Championship is a two-day event taking place between December 3 and 4, 2022, with a competition of one and a half days with 10 teams and 30 participants from seven countries. The venue can accommodate over 500 participants, but we are working to ensure even more seated places. Additionally, the event will be streamed live and online. Each participating team will design robots for four games, Time to Fall, Death Clock, Weight Game and Hanging Hazard, each more complex than the other, with a knock-out system all the way to the finals. Running parallel to the competition, there is a STEM initiative, carried out as a series of robotics workshops dealing with how the robots are designed and implemented, from mechanical structure to the software core. These will be available for all the registered participants and will be provided also by the competitor teams.

What can we expect in robot design?

Each team is to design a robot to best fit the requirements of the arena, with a lot of creativity to take advantage of the surroundings and given tasks. This means that we can expect robots of unique design, as well as game-specific shapes with tailored add-ons best suitable for each challenge. For example, the goal of one of the games is to carry the weight to the opposite side of the arena while their opponents try to stop them by pushing them to the side pits. The design of the arena is one of the most challenging parts, including the

design of the floor elements to ensure the high dynamic of the competition.

What is the STEM Initiative part of the championship?

This is made up of lots of courses, lectures and the learning side of the championship, which will be carried out both in-person and online. If you are interested in following our online courses, you can visit our FB page or join the courses that are available. IEEE is lucky to have very good speakers and professionals from various areas. The Championship is not only about building robots and competing, but it is also a central event to gather robotic experts at a single place. The experts are technical professionals in STEM, aiming for various age groups of pre-university and university students, doing exercises to develop new add-ons for robots and improve existing ones. It is also not only about the technical side, but also about leadership and team management, about funding the robot parts, which means entrepreneurial side of crowd-sourcing funds and pitching to the industry, project management to build robots, and more. These are open for any member of the community via our Facebook or YouTube channels. We strive to be very open and inclusive, so everyone is welcome. Everybody can participate as long as they are registered with a student branch, which means undergraduate, graduate and postgraduate students, and we also allow recent graduates.

What makes a team the best for the competition?

A lot of members are involved in robotics, which is not only about engineering, and there is a significant ICT side. Because of that, all are very motivated; some are already experienced from previous competitions, some are newcomers. We have been doing this competition for nine years, and each one has new games, which means new ideas and new challenges for the participants. We have had previous attendees who were so motivated to later enroll to technical universities and who immediately come to local IEEE student branches with a question: "Can we participate now?" Some people stop me and tell me that they remember me as a lecturer, and that the event inspired their path to become active in engineering and ICT.

What would you recommend to our members?

This is just a snippet of many activities that are happening among IEEE Professional and Educational Activities committee. We give resources to encourage education and professional initiatives in Region 8, together with global initiatives that we are facilitating to our sections. I would like to encourage our members, especially students in Africa, to take advantage of these possibilities and exploit our website, use the funds, resources and programs that we have.

Check for more information:

<http://www.ieeemalta.org/robotchampionship>

<https://www.facebook.com/ieeeR8PEA>

IEEE Region 8 Humanitarian Activities Congress

Miriam Cunningham, Region 8 Humanitarian Activities Committee, UK and Ireland Society on the Societal Implications of Technology (SSIT) Chapter and SSIT IST-Africa SIGHT



The Region 8 Humanitarian Activities Committee (HAC) organised the first IEEE Region 8 Humanitarian Activities Congress during 1-2 August 2022, in Tunis, held as a hybrid meeting with that hosted over 85 participants.

The congress focused on showcasing tangible R8 Special Interest Group on Humanitarian Technology (SIGHT) results and lessons learnt, facilitated SIGHTs active across R8 to share past, current and future activities being planned, network with other SIGHTs and support skills capacity building in the region. There are currently 32 SIGHT groups established and two Society SIGHTs active in Region 8, and a wide consultation was undertaken during April and May inviting all R8 based SIGHTs to share insights into results, future plans their SIGHT could present as well as some of the current challenges being faced operationalising plans. The experiences of 13 SIGHT groups were all incorporated into the Congress program.

A welcome address was held by Habib Kammoun, IEEE Region 8 Conference Coordination Chair, who thanked the R8 HAC Committee for or-

ganising the first R8 HAC Congress in Tunis and wished all participants a productive knowledge-sharing event. Antonio Luque, IEEE Region 8 Director, welcomed the first R8 HAC Congress and provided the role and vision of IEEE as a "Your Professional Home", while emphasizing the launch of a joint R8 / HAC call for proposals. Sara Barros, IEEE Region 8 Vice-Chair of Member Activities, thanked the SIGHT leaders and volunteers for their ongoing activities and sharing their results during this meeting. The officials thanked Abdullateef Aliyu and Miriam Cunningham for organising the Congress.

Abdullateef Aliyu, Chair of R8 HAC, welcomed the participants and presented the R8 HAC Members: John Funso Adebayo, Fairouz Fattoum, Lavender Ndunya, Miriam Cunningham, Manuel Ballesteros Carballo and Walid Bin Habib. He outlined a significant growth of humanitarian activities with 12 SIGHTs in 2017, growing to 14 in 2019 and to 32 by 2022, which provided 271 activities reports in less than a year. Abdullateef summarised the support provided to SIGHTs in R8 including mentoring, joint call for proposals with HAC, Region 8 SIGHT Award and dissemination of results via the Humanitarian Voices Program.

Sampathkumar Veeraraghavan, Chair, IEEE Humanitarian Activities Committee highlighted the strong working relationship with Region 8, including the joint call for proposals this year. He provided insight into IEEE level Programs and Resources available to support humanitarian activities, including awareness raising of the role of technology in supporting sustainable development, providing access to online educational resources and capacity building training courses, grant funding towards volunteer activities addressing local challenges through technological innovation and support for collaboration, including the HAC Global Summit. Sampathkumar outlined a positive global increase in the number of SIGHTs formed across IEEE, with 18,288 SIGHT Members in January 2021 growing to 29,709 by June 2022. During 2022, there is also a significant increase in collaboration efforts with societies, regions, affinity groups of Young Professionals and Women in Engineering, various events and other IEEE programs and initiatives, such



as TRY Engineering, IEEE SA Voice, STEM Portal, IEEE Education Week, and IEEE Foundation.

Region 8 SIGHT Results and Lessons Learnt

This session, moderated by Miriam Cunningham, shared insight into experiences and results from Region 8 SIGHTs with an exemplary results. Nizar Rokbani, Past Chair of IEEE Tunisia Section SIGHT presented results from the supported program “Robotics for Equality & Democracy Focus (R4D)” that was focused on supporting STEM activities in public schools in Tunisia. During 2019-2021, 90 STEM educators were trained and 60 workshops, competitions, events and the robotic summer camp were undertaken with primary school pupils. The R4D curriculum has been adopted in extra curricula clubs or monthly workshops in 20 various schools in Tunisia. From 2023, the program is planned to be deployed in 23 regions, with support from RAS Education Initiative and Tunisia Inspectors Association.

Juan Gómez-Pulido, Chair of IEEE Spain Section SIGHT, presented results of “NOKAPI project” focused on leveraging technology to support cultural heritage preservation in a Peruvian Amazon area and “CESAL project” focused on developing a mobile application to support NGOs to manage training processes for young immigrants looking for employment.

Birk Hattenhorst, Chair of IEEE Germany Section SIGHT, presented a portfolio of project activities undertaken by students through the SIGHT supervised by academic staff. With an initial motivation for forming the SIGHT in 2017 to implement a project on landmine detection in Colombia, the current projects include: “Cloachard Alert”, an alarm system for homeless people to secure their belonging and reduce theft, “Heat Pads”, a power bank driven heating pad for homeless people, and “Solar Bag”, a school bag with integrated solar panels, energy storage and LED light to allow pupils in rural areas in Cameroon to do homework in the evening.

Heba Qadoomi, Past Chair of IEEE Jordan Section Al-Balqa Applied University Student Branch SIGHT, presented a range of activities and projects undertaken by SIGHT Volunteers focused on supporting disadvantaged groups in agriculture production, technical capacity building, supporting Orphans and providing a bicycle driven system to generate energy with the Zatarri Refugee Camp.

Vikass Monebhurrun, Chair of IEEE Indian Ocean SIGHT (AP-S), shared results from activities, tutorials and projects related to “Amateur Radio” undertaken as a collaboration between AP-S Volunteers in Mauritius and Reunion Island.

After 11 presentations and discussions of various local SIGHT activities, moderated by Abdullateef Aliyu, Melissa Sacchi further provided insights on how to prepare to pitch for funding for humanitarian activities, including problem statement, origin story, value proposition, business model, competitive analysis and Solution, all stemming from a diverse and inclusive team with complementary skill sets.

Miriam Cunningham shared insights into practical experiences associated with co-designing ethical interventions in resource-constrained environments, based on extensive field work carried out with local partners across Africa. She summarised changes in the focus of global development over time from the perspective of leveraging technological innovation, means of support to community-focused interventions, research ethics to be respected and steps required for an effective implementation plan.

The congress closure was carried out by Antonio Luque, Sara Barros and Sampath Veeraraghavan presenting certificates to the R8 SIGHT participants who physically presented their results during the R8 HAC Congress. Together with Miriam Cunningham and Abdullateef Aliyu, they all thanked the participants for their energy and positive inputs and wished them well implementing their ongoing plans, with a special thanks to Habib Kammoun and his team for facilitating the local organisation and equipment to support an effective hybrid meeting.

IEEE Connecting Experts Program

Vinko Lesic, IEEE Region 8 Young Professionals



Along the initial lockdowns of 2020 cancelling all our IEEE events, we were all turning to digital and online versions. With this, the program “IEEE Connecting Experts” by IEEE Region 8 Young Professionals, a program of bringing expert speakers to industry, transferred to an online version, open for participation and streamed through social media channels.

With a philosophy of “one click to global”, the program was initiated by IEEE Young Professionals, a group of young engineers and scientists in the early stage of our careers who share knowledge, enthusiasm and collaboration readiness on events and conferences around the globe. Over 15 Young Professional Affinity Groups from Region 8 and over 10 more other IEEE organizational units contributed with their experts in topic of technical, professional and entrepreneurial topics.

The program proved the huge impact of IEEE as the global network of professionals and the capabilities of our digital channels that we were building over many years. All this provided a chain-reaction in streaming on social media channels of our IEEE OUs and individual volunteers to provide the ultimate outreach, with focus on younger generations of electrical engineers: academics, industry engineers and tech-entrepreneurs.

Over the course of two years, 67 talks were held and gathered 2,000+ attendees during live sessions, 5,000+ views on Youtube channel, 20,000+ views on Facebook. Topics on artificial intelligence, smart buildings and cities, power and energy trends, as well as imminent COVID and health topics were all presented as part of the technical track. Professional track focused on personal development, teamwork skills, emotional intelligence, public appearance and more, often held as tailored workshops for narrow groups of participants. The entrepreneurial track was joined by “Talkspreneur” program of the IEEE R8 Entrepreneurship Initiative and held sessions about initiating and scaling-up of your own business, tips and tricks on business deals, and lot of success stories to serve as role models in building business in tech. Joined with the “Young Professionals in Space” initiative, a space track was formed bringing us interviews and presentations with astronauts and NASA scientists. In average, the talks counted 435 participants for each technical track, 248 for professional, 1302 for entrepreneurial and 2550 for a space track.

The program has seen its recent closure as in-person events again see the light of the day and COVID era falls behind us. The best practices we will keep on for the future, together with the established significant database of talk recordings that is accessible at <https://www.youtube.com/IEEER8YoungProfessionals>.

Power and Energy Distinguished Lectures in UK & Ireland Section

Rosa Serrano, Communications Officer of IEEE UK and Ireland Power and Energy Society Chapter

IEEE UK & Ireland Section held series of distinguished lectures on topics of power and energy, hosted and coordinated by IEEE UK and Ireland Power & Energy Society (PES) Chapter and corresponding Student Branch (SB) Chapters at different universities. During April and May 2022, the events attracted over 200 participants.

“SMART Power Flow Controllers – A Necessity for Future Power Grid”
by Kalyan Sen



Image credits: IEEE UK & Ireland Section

The IEEE PES Distinguished Lecturer Program (DLP) seminar was delivered by Kalyan Sen, the President and CTO of Sen Engineering Solutions, Inc. and IEEE Fellow, with the topic of “SMART Power Flow Controllers – A Necessity for Future Power Grid”, on Tuesday, 24th May 2022. The same talk was delivered again on Wednesday, 25th May 2022, hosted by University of Birmingham (UoB) IEEE Student Branch (SB). To kick off this event, the host, Nan Chen, the Chair of the SB, welcomed everyone and briefly introduced the student branch. Dr Jianing Li, the Chair of the IEEE PES UK&I Chapter, introduced the speaker, Dr Kalyan Sen to the audience. Finally, the talk was repeated at Brunel University London on Thursday 26th May 2022. Overall, the talk attracted over 100 online and in-person participants.

Kalyan Sen introduced the importance and prospect of the Impedance Regulator (IR) in Flexible Alternating Current Transmission Systems (FACTS) and the history of its research, followed by the drawbacks of the conventional inverter-based IR used as the Unified Power Flow Controller (UPFC) – component obsolescence and high cost. A more compact and affordable “Sen Transformer (ST)” has been carried out by SEN Engineering to achieve better functionalities compared with IR and Phase Angle Regulator (PAR). Kalyan demonstrated that this could be used as a “SMART Power Flow Controller (SPFC)” to provide a functional requirement-based, cost-effective solution in FACTS, in the case that the needed speed of response is in seconds. Kalyan emphasized that we have one billion people without electricity and with the presented benefits, SPFC could make it more possible for the Smart Grid to offer access to electricity for everyone. The presentation lasted for around two hours and was followed by a 20-minute Q&A session.

“Grid Modernization: Challenges and Opportunities in Powering a Sustainable Future” by Julio Romero Aguero

IEEE PES Distinguished Lecturer Program (DLP) titled “Grid Modernization: Challenges and Opportunities in Powering a Sustainable Future” was delivered by Julio Romero Aguero on Thursday 28th April 2022 via online, hosted by The University of Manchester IEEE PES SB Chapter. Modernizing power grids using cutting-edge technologies,

devices and controls can make them ‘smarter’ and more resilient. Thus, enhancing the reliability and efficiency of power supply, which significantly reduces the occurrence of power outages. A modernized grid provides better opportunity for building a sustainable society, by increasing the integration of renewable energy sources into the energy mix, as well as reducing grid operational costs.

Recording available: <https://www.youtube.com/watch?v=OOJFge62tPs>

“The Power of Data Analytics in Electric Utilities – An Industry Perspective” by Siri Varadan

The IEEE PES SB Chapter at The University of Manchester organised its 2nd Distinguished Lecture Program (DLP) talk of the year themed “The Power of Data Analytics in Electric Utilities – An Industry Perspective” by Siri Varadan, Global Director of Strategic Solutions for Asset Management at Hitachi ABB Power Grids. The session focused on the use of field data obtained from sensors monitoring field assets. The crucial question “what to do with this data?” is the main topic. Use cases were presented demonstrating how data analytics can be used for determining asset health, criticality and remedial actions. The session also deals with the topic of decision making based on data-driven facts. This included diagnostics (what to do now?) based on current and past data, and prognostics (what to do in the future?) based on AI/ML techniques.

Recording available: <https://www.youtube.com/watch?v=TGnFBkgmLs>

“Use of Energy Storage for Reliability Improvement of Renewable Generation” by Joydeep Mitra

This IEEE PES DLP webinar “Use of Energy Storage for Reliability Improvement of Renewable Generation” was organized by IEEE UK and Ireland Power & Energy Society Chapter and hosted by University of Birmingham IEEE Student Branch on 5th May 2022. Joydeep Mitra, MSU Foundation Professor of Electrical Engineering at Michigan State University, East Lansing, Director of the Energy Reliability & Security (ERiSe) Laboratory, and Senior Faculty Associate at the Institute of Public Utilities, was invited to give a presentation on the topic of ‘Use of Energy Storage for Reliability Generation’. Prof. Mitra started the presentation by describing the growth of renewables in worldwide electric energy production and introduced the contribution of renewable resources of UK and Ireland. He developed a mathematical method and conducted analyses to determine the amount of storage required to meet a reliability target at a specific load point. Effects of resource availability and network constraints were also considered within the analysis. Besides, Prof. Mitra illustrated how to use augmented wind farms in IEEE Reliability Test Systems, and provided simulation results of various scenarios.

“Energy Storage: Gaps and Opportunities Analysis” by Seamus Garvey, Wei He, Edward Barbour, Hui Luo, Amruta P. Joshi and Chris Harrison

On Tuesday 24th May, an in-person the workshop “Energy Storage: Gaps and Opportunities Analysis” was held at the University of Birmingham. The event was organised and chaired by Dr. Jianing Li. It was sponsored by Supergen Energy Storage Network+, and technically sponsored by IEEE UK and Ireland PES Chapter. The workshop aimed to identify opportunities arising in specific market sectors relevant to energy storage. These opportunities should be entirely technology-agnostic – pointing out the characteristics that will be required for the energy storage system but refraining from any constraint concerning what technology could be used to exploit the opportunity.

Recording available: https://youtu.be/sitahZ_ZhRg

“From Zero to Hero”, Young Professionals Workshop at R8 SYP Congress 2022

Inês Inácio, IEEE Region 8 Young Professionals



Image credits: Vinko Lesic

Another amazing Region 8 Student and Young Professionals Congress is over. This year, the Young Professionals from our Region had the opportunity to meet up in Tunis, Tunisia and be a part of this legendary event.

As per tradition, the R8 YPs held a workshop where affinity group vitality, funding opportunities, awards and cross-sectional SYPs were discussed, amongst other topics. A brainstorming session was held conveying the wishes and needs from IEEE and membership to R8YP team, setting the foundations for future strategy and programs for YPs. In the second part of the workshop, carried as a group activity of several teams, a simulation of a request for a Local Activity Funding was held. Young Professionals brainstormed a joint event, quantified the needs and results, and shaped it in the form of a project proposal. Because in the end, it is very important to know where to find the right funding to organize our activities!

The session was even better due to the presence and collaboration of many YPs, coming from all over our Region to represent their affinity group. To the ones attending, a special thank you for your contribution!

IEEE Region 8 Entrepreneurship Finals at R8 SYP Congress 2022 in Tunis

Rawan El Jammal, Chair of IEEE Region 8 Entrepreneurship

On the 5th of August 2022, five startups from Greece, Georgia, Palestine and UAE, came together at R8 SYP Congress in Tunisia to compete in the IEEE Region 8 Pitch 2022 Finals. This competition is the flagship program of IEEE Region 8 Entrepreneurship Committee, taking place every summer, for the past three years. Startups competing in R 8 Pitch are selected from the 60+ startups that won in the Entrepreneurship Week events hosted all over the Region by Entrepreneurship Week Ambassadors.

The five startups brought diversity, enthusiasm, and innovation to the pitching room. Team “Greeners”, from Palestine, presented an eco-friendly, biological, liquid fertilizer – an up and running business that has received the Hult 100 k\$ award and is generating revenues steadily. Also from Palestine, team “Langsmart” joined with an innovative AI-based application to help people with hearing and speaking problems, to be

used by universities, medical centers, or individuals. All the way from UAE, team “Efert” thought outside the box, and presented a hygienic sanitation solution, implemented in South Asia to address shortage of public toilets and recycled waste into biological fertilizers, as an innovative example of circular and zero-waste economy. Coming from Greece, team “Feel Me” touched the audience and judges with their system solution that connects to wearable devices, tracks stress levels, panic attacks, change in voice tone, enhancing everyday life of high-functioning children with ASD. Finally, team “Noisure” from Georgia pitched virtually a noise level detector to support in controlling noise pollution affecting natural ecosystems, schools, and other communities.

Judging the startups was a panel of industry experts from IEEE, entrepreneurship experts and investors. The panel included Seif El Hajjem, Vice Chair of IEEE Tunisia, Zied Bouida, Senior researcher and a Cisco Chair Technical Manager, Maged Gharably, Program Cost Manager at Meta, Conrad Attard, Chair of IEEE R8 Professional and Educational Activities, Mohammed El Dallal, Serial Entrepreneur and CEO of Techne Summit, Ghazi Saddem, Head of Founder Institute Tunisia, Douja Gharbi, CEO of RedStart Tunisia and Chair of DAMYA Angels, and Nehal Ali, Senior Project Officer at Oxfam North Africa.

The Pitch Award Ceremony took place the next day, on 6th of August, as part of the R8 SYP Congress Gala Dinner. Team “Feel Me” won the runner up award, with a 500 \$ prize, while the first-place prize of 800 \$ went to team “Greeners”. The IEEE Region 8 Entrepreneurship Committee also secured mentorship and pre-incubation awards to support the startups continue their journey beyond the competition. Team “Langsmart” received a customized pre-incubation support from RedStart Tunisia, while teams “Feel Me” and “Efert” received scholarships for the Founders Institute pre-incubation program. All startups will also be matched with mentors through the Startups Without Borders network, a partner of IEEE Region 8 Entrepreneurship.

The award ceremony concluded with a group picture of the teams and Entrepreneurship Committee team and founders, joined by the Region 8 Director Antonio Luque, Region 8 Director Elect Vincenzo Piuri, Region 8 Treasurer Adam Jastrzebski, and Region 8 Past Director Magdalena Salazar Palma.

Ms Rawan El Jamal, Chairperson of Region 8 Entrepreneurship Committee concluded the awards ceremony by highlighting that 4 out of the 5 startups have female founders: “Diversity and inclusion in entrepreneurship is a cause close to my heart, female founders face many more challenges to be heard, seen and raise funds, and we will continue promoting diversity and inclusion in our committee and ecosystem”.

The Region 8 Entrepreneurship Committee, which started as a program in 2018 and became an ad-hoc committee in 2022, is hosting their Entrepreneurship Week 2022 and has reopened the call for ambassadors. Interested volunteers can apply here to take part of this program and organize their own local entrepreneurship event and competition by filling the form given on website.

For more information on the Region 8 Entrepreneurship, you can check their website here <https://entrepreneurship.ieeer8.org>.

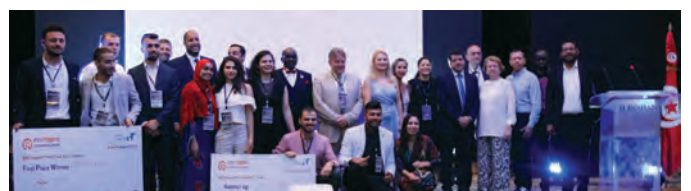


Image credits: IEEE R8 SYP 2022 Congress Organizing Committee

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IEEE Region 8 Student and Young

Image credits: IEEE R8 SYP 2022 Congress Organizing Committee

Opening ceremony

The Opening Ceremony of the Region 8 Students and Young Professionals Congress 2022 was a spectacular start. As soon as you have entered the theater at the Tunis' city of culture, you have found yourself submerged in a whole new universe. The ceremony kicked off with a welcome address given by the SYP2022 Chairman Khaldoun Taktak, followed by a welcoming word given by the Tunisia's IEEE INSAT Student Branch Chairman Mohamed Ali Zormati. Samir Hamza, Director of the National Institute of Applied Sciences and Technology, introduced INSAT and welcomed all the attendees while wishing them a nice stay in Tunisia. Final words of the local organizer were the showcase of IEEE Tunisia Section given by the IEEE Tunisia Section Chairwoman Ilhem Kallel. She shed light on the membership growth within the section, which is now reaching over 5000 members.

The IEEE Member and Geographic Activities (MGA) Vice President David Koehler and the IEEE Senior Director of Member Experience Michael Kreisberg presented the benefits of IEEE for students and young professionals and how the association can boost their professional careers. They cited how MGA plans on supporting students and invited the participants to share their feedback and suggestions during the SYP Congress.

Antonio Luque, IEEE Region 8 Director, shared statistics about IEEE membership in Region 8 and highlighted again the Tunisia Section's contribution to the overall membership growth. He also shared the different opportunities available to recognize the efforts of all members. Mr. Luque finished by challenging the attendees to meet different people from different fields, membership grades, and more, to leverage the IEEE network. Sara Barros, Vice-Chair of IEEE Region 8 Member Activities, and



Professional Congress 2022, Tunis

Peter Nagy, Vice-Chair of IEEE Region 8 Technical Activities, welcomed the participants dearly and invited them to exploit the offers of the R8 SYP Congress, emphasizing that the experience and the contacts are to be carried on for life.

Valuable information about funding opportunities for student activities in Region 8 and new initiatives that will enhance networking and push students to be more involved in IEEE was presented by Region 8 SAC Chair Simay Akar and Region 8 Student representative Theodoros Chatzinikolaou. Almedin Kavaz, the IEEE Region 8 Young Professionals Chair, presented the Young Professionals Affinity groups in Region 8 and what they can offer to its members elevating from students to young employees, and continuing their career intertwined with IEEE opportunities. Emre Aryanci, the IEEE Young Professionals Chair, joined to present the benefits available for young professionals globally, and highlighted

the potential of funding opportunities and the volunteering platform. The IEEE Women in Engineering (WIE) Committee Chair Janifer Castillo held an online presentation and shared the benefits of IEEE WIE and its opportunities, followed by Wafa Ben Hmida, Region 8 WIE Committee Member, who presented focused and tailored benefits for women in engineering throughout IEEE Region 8.

Finally, the congress sponsors took the floor to present their companies, leading in the fields they operate in: Sabri Braham from Draxelmaier, Dragan Persic from Asteelflash, Zied Bacha from Clevory, and Chadi Hamrouni on behalf of South Mediterranean University.

The opening ceremony ended in boosted spirits, eager to experience the congress, and accompanied by Tunisian touch

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Image credits: IEEE R8 SYP 2022 Congress Organizing Committee

in networking, which already started in the venue lobby. The opening ceremony was only the gate we entered to start a memorable congress.

Sessions, talks, workshops

A panoply of technical activities was presented to the congress participants. They were invited to assist in workshops and keynote sessions covering diverse state-of-art topics. These sessions were given by many IEEE leaders and industry and academia experts. The 4th and the 5th of August were reserved for keynotes and workshop sessions in which the participants had a chance to get introduced to new IEEE programs and benefits of their membership, such as the possibilities of Microwave Theory and Techniques Society introduced by Sara Barros, or the IEEE Volunteering platform that Emre Ayranci held a session about, discover new technologies such as Smart Cities with Sohaib Qamar Sheikh, a R8 PEA Distinguished Lecturer, and get to enhance their soft skills like the “learning new pitching best practices” hosted by the IEEE Region 8 Entrepreneurship Initiative. Notably, the Women in Engineering tracks that took place during the congress and that were animated by many WIE Leaders such as Samina Husain, Margaretha Eriksson and Ilhem Kallel. The trainers did also really enjoy sharing their knowledge and experiences with the participants during the different coffee breaks.

The 6th of August was reserved for plenary and panel discussions. Three consecutive panel sessions took place: the first “Women in Leadership” session was animated by Sally Musonye during which many successful women within IEEE and academia discussed the challenges they had to overcome on their path to achieving their goals and shared their experiences with the audience. Second plenary session was entitled “The impact of IEEE in the industrial revolution” and was moderated by Inês Inacio from R8 YP and included Mohamed Amin as a representative of the R8 Career Platform, Mohamed El Dallal as a representative of the IEEE Entrepreneurship and John Matogo as a representative from R8 AFL. Panelists have

discussed the impact that IEEE had in the industrial revolution. The last plenary session entitled “IEEE Leadership Forum” was moderated by Simay Akar, Region 8 Vice-Chair for Students Activities. Many IEEE leaders were part of this discussion such as IEEE President Ray Liu, David Koehler, MGA VP, Antonio Luque, R8 Director, Sampathkumar Veeraraghavan, President-Elect of IEEE Eta Kappa Nu, Hossam Ali, IEEE MGA SAC Chair, and Emre Ayranci, IEEE YP Chair. The panelists talked about their vision for IEEE, how they started their volunteering journey within IEEE and shared some of their favorite IEEE memories.

Career fair and poster session

The third day evening was full of activities assembling all the participants, such as the poster session and the career fair. The poster session is a tradition passed through SYPs and this edition was a blast with over 90 student branches and YP affinity groups from all over the world delivering and printing their posters. Delegates told their history, enumerated their achievements, and presented statistics, as interactive share of experiences and best practices in engaging their own communities. For the career fair, multiple Tunisian companies were there such as DRÄXLMAIER Tunisia, GAT Insurances, Clevory Group, Asteelflash Tunisia, Topnet, Tunisie Monétique, South Mediterranean University, and Mitsubishi Electric Europe. During an hour and a half, the barriers between companies and opportunities seekers were broken down. As a treat, we had at the same time a live draw for the winner of a tablet, which was awarded by congress sponsor GAT Insurances.

Tunisian culture at a glance

Visiting Tunisia was a golden opportunity to explore and discover the beauty and the traditions of this North African country. Participants and guests enjoyed the mesmerizing view of the archeological site of Carthage, where the mountain, the sea and the Carthaginian ruins made a catchy painting-like scene. The group photo was taken from the highest point in Carthage with a wide view of the whole capital. When talking about traditions, food had its own words. The “mechwia” salad,



Image credits: IEEE R8 SYP 2022 Congress Organizing Committee

couscous, “lablebi”, and harissa were our attendees’ main favorite dishes, having everyone humming by their spiciness yet their unbearable deliciousness. Dancing was definitely the number one fun option of the congress, following the events of Tunisian dinner and the multicultural evening. All the participants and guests were on their feet feeling the rhythm and enjoying the tune of Tunisian songs. At last, no one can come to the great Carthaginian capital without learning few Tunisian words like “aslema” when greeting, “ayshek” when thanking and many other words that are common in the Tunisian dialect.

Gala dinner and awards

The gala dinner was another great opportunity for participants to network. The notable speakers at the dinner, Ray Liu, David Kohler, Antonio Luque and Emre Ayranci, encouraged the participants and especially students to remain in IEEE and utilize the many opportunities the young professional affinity group provides. Aymen Tmar, IEEE Power and Energy Society R8 YP representative, talked extensively about their activities and their committee work.

The IEEE entrepreneurship initiative was among the front and center at the gala dinner. Mohamed Dallal, IEEE Entrepreneurship Vice Chair, highlighted the many efforts IEEE is doing to support entrepreneurs and technical innovations within IEEE, followed by invitation of Rawan El Jamal, IEEE R8 Entrepreneurship Chair, to take part in entrepreneurship events and funding programs that R8 is providing. As the finals of IEEE R8 Pitch competition took place at the SYP congress, the awards were also given at the gala dinner with five startups participating: EFert, FeelMe, Grenners, LangSmart and Noisure. After proclaiming the winner, a group photo of all R8 Entrepreneurship initiators and participants was recorded.

Lee Crudgington and R8 SAC presented awards for 2020 and 2021 to the distinguished student branches and sections. Kithinji Muriungi and Maltucha Chaltu presented an appreciation award from the IEEE Kenya Section to the organizing committee of IEEE Region 8 SYP congress congratulating them on their work. The evening ended with an acoustic music show by the “Anarouz” Band where the participants danced the night away.

Multicultural evening

IEEE Region 8, comprising Europe, Middle East and Africa, is often credited as the most diverse region in IEEE. What it truly means, in technical perspective or any other, is a great challenge to explain it. The words often miss to depict all the comprehensiveness of the term “diversity”. One must

experience it to fully live it, and when it comes to a multicultural evening of a SYP Congress, there is no better place in the world. The flags from over 40 countries were flying that night, filling the atmosphere with as many languages, customs, traditions, all lied on the tables and presented as food, drinks, clothes, and souvenirs. With the central stage playing music from far corners of our Region, a night of sampling all of this is the night to remember it for the rest of our lives. Join us to live the night and witness the cultural richness of Region 8, and inexhaustible energy of young spirits spreading their motivation to each corner, age and profession. Learn that spices, beverages, sweets, and food in general, together with fashion and jewelry, rhythm, and dancing, all reflect in the way that we uniquely, yet jointly, dream and perceive the knowledge and technology. Spend a night with us and learn that this is what truly unifies the world.

A word from the organizing team

The road was surely not easy and full of bumps but the whole team was there for the whole time to face the new challenges that kept rising, especially during the last days of preparations. Finally, during the congress, the whole team had nothing but pure motivation to work harder and harder to overcome any obstacle and deliver the best possible and tailored experience to each participant of the congress.

The volunteers have succeeded in maintaining a friendly environment for the participants and creating a strong bond between them, ensuring that the goal of networking and getting to know people from across Region 8, as one of the main congress goals, is reached. Even if occasionally sleep-deprived, the whole team made sure to have some fun on their own with the congress attendees while making sure everything goes smoothly and as planned.

Being the host of more than 200 participants from over 40 countries was a very pleasing experience and a very beneficial one on many scales. Having the chance to host a SYP Congress is a once in a lifetime opportunity that we would strongly recommend to every Student Branch and Young Professionals Affinity Group to seize.

Testimonials

“SYP is not just a congress for me. It is a gathering point for young people who are passionate about engineering and love to share their dreams and experiences. This year in Tunisia we observed exactly this wonderful experience” – Skapetis Christos

“An amazing congress, with an amazing group of organizers, glad to have met with them all” – Harout Topjian

“From the beginning, the organization was professional in terms of reception, and this creativity continued during the 5 days” – Laith Khaled Nazzal



Image credits: IEEE R8 SYP 2022 Congress Organizing Committee

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"One of the best experiences indeed. The organizers went beyond and above to deliver an exquisite congress" – Rodaina Fayad

"Meeting colleagues and friends from countries all over the world is something magical" – Iordanis Kostelidis

"Without a doubt, this is the most exciting professional gathering I've ever been in" – Chadi Hamrouni


"Being my first international experience as an IEEE Member, the SYP Congress held in Tunisia will always be a remarkable memory" – Lydin Camilleri

"I was really delighted by the organization of the event, the hospitality of the people, and the bonding of the organizing committee" – Alkiviadis Panagiotis Michalitsis

"As a first-time regstree, my expectations were high, but the SYP has exceeded them" – Robert Milijaš


"It was inspiring to see colleagues, young professionals, and students from over 40 different countries at this years IEEE R8 Student & Young Professional Congress 2022 in Tunis, Tunisia." – Ray Liu





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Humanitarian Activities Workshop at SYP 2022

Miriam Cunningham, Region 8 Humanitarian Activities Committee, UK and Ireland Society on the Societal Implications of Technology (SSIT) Chapter and SSIT IST-Africa SIGHT



Image credits: IEEE Region 8 Humanitarian Activities Committee

The IEEE Region 8 Humanitarian Activities Committee (HAC) and IEEE HAC organised a workshop during IEEE Region 8 Student and Young Professional Congress 2022 in Tunis on 4 August 2022. Following on R8 Humanitarian Activities Congress, which preceded the workshop by two days, participants from 15 countries could hear about the successful projects in Region 8 and best practices in putting to use the technology to address societal challenges in cooperation with local communities.

Abdullateef Aliyu, R8 HAC Chair, briefly shared representative case studies from community intervention projects undertaken by R8 SIGHTs including the "ISSB Model Rainwater Harvesting Tanks" in Uganda, "Global Telehealth Project" in Kenya and Uganda and "Smart Kibanda" in Kenya. He followed with programs and funding opportunities offered by IEEE HAC and raising awareness of opportunities within Region 8 to support community interventions.

R8 HAC launched a joint call for proposals with IEEE HAC in 2022 to support R8 SIGHT Groups to undertake innovative initiatives leveraging technology appropriately to address social challenges in underserved communities. Project funding ranges from \$1,000 - \$3000 and the projects are undertaken by volunteer SIGHT members with financing applied towards agreed infrastructure / equipment and local travel required to implement the project. R8 SIGHTs can also apply to IEEE HAC for project funding under general calls. During 2022, HAC received 144 such proposals from 19 countries and five IEEE regions.

A recognition for the best activities in 2021, "Region 8 SIGHT Student Branch Award", was presented to the IEEE Al-Balqa Applied University SIGHT, Jordan, during the Region 8 Meeting in Warsaw, Poland, in April 2022.

55th Edition of the IEEE Region 8 Student Paper Contest Successfully Completed

Vera Markovic, IEEE R8 Student Activities Committee Member and Student Paper Contest Coordinator

"The Student Paper Contest has been an incredibly enriching experience for me. Writing a paper allowed me to drastically improve the way I present information, and also led me to a deeper understanding of my work while discussing some unexpected results. Presenting in front of such a jury has been an exciting moment that boosted my confidence. Last but not least, attending the conference, listening to other researchers, and meeting students and PhDs from all over the world have just been so thrilling. I really encourage future students to jump in this adventure, you won't regret it" - these are the words of one of the SPC finalists who shared his impressions with us.

The IEEE Region 8 Student Paper Contest (SPC) is an excellent occasion for the involvement of student/graduate student members in a prospective IEEE scientific/technical activity. This contest is a long-running tradition, celebrating its 55th edition this year. The first, written part of the contest was completed in February 2022, and 5 best papers were selected for the second, oral part.

The SPC 2022 oral finals were held as a part of the IEEE R8 flagship conference MELECON 2022, in Palermo, Italy, on June 14, 2022. After two years of adverse circumstances caused by the coronavirus pandemic (SPC 2020 was held online and SPC 2021 was held in hybrid form), this year we gathered all the finalists and jury members allowing the event to be completely in person.

Members of the international jury who assessed the student papers in the written part and presentations during the oral finals were Prof. Paul Micallef from Malta, Prof. Mike Hinchey from Ireland, Prof. Giambattista Gruosso from Italy and Prof. Vera Markovic from Serbia. Given the high level of quality of the finalists' papers and presentations, the task to select the winners was not easy at all.

We were very honored by the presence of Antonio Luque, IEEE R8 Director, Vincenzo Piuri, IEEE R8 Director-Elect, Simay Akar, IEEE R8 Student Activities Committee Chair, Habib Kammoun, R8 Conference Coordination Committee Chair and Theodoros Chatzinikolaou, Regional Student Representative, at the SPC 2022 oral finals.

The FIRST PRIZE and an award of \$800 went to Zixuan Huang from Imperial College London, UK, for the paper entitled: "Beam-switching Circularly Polarized Antenna Array for Cold-chain Tracking RFID Applications". In addition, the Student Branch (SB) of the SPC 2022 winner, Imperial College London SB, got a special award "Dick Poortvliet" of \$250.

The winner of the SECOND PRIZE and the award of \$500 is Lorenzo Lagostina from Politecnico di Torino, Italy, for the paper entitled: "Design of Low-power Arithmetic Logic Circuits for 45 nm CMOS Technology". The THIRD PRIZE and award of \$200 went to Emilija Čojbašić from University of Niš, Serbia, for the paper entitled: "Machine learning as an aid to predicting clinical outcome after stroke".

The author of the paper placed in fourth place entitled "Optimization of cold rolling process recipes based on historical



IEEE Day 2022 is on the 4th of October

Stay Tune !

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SPC2022 Oral Finals (image credits: IEEE R8 SAC)

data” is Kristjan Cuznar from University of Ljubljana, Slovenia. The paper authored by Matthieu Brabant from Université Catholique de Louvain, Belgium, entitled: “Homomorphic Encryption for Privacy-Friendly Augmented Democracy”, took fifth place.

The SPC award ceremony was held during the conference gala dinner on June 15, at a charming Villa Chiaramonte Bordonaro. A special kind of recognition for all five finalists is that their papers have been published in the MELECON 2022 Proceeding and in the IEEEExplore digital library.

Congratulations to all the finalists, especially to the three award winners! Many thanks to all the participants in the SPC 2022, and the branches they come from!

In order to promote the Regional SPC, as well as increase awareness and participation, the IEEE R8 Student Activities Committee has announced the Local SPC Events Program. Its goal is to provide incentives and support to IEEE Region 8 Sections and Student Branches for establishing local student paper contests. Please visit <http://sac.ieee8.org/sa-spc/> for more information.

We truly hope to receive many high-quality student papers for the SPC 2023, whose oral finals will be held during the conference EUROCON 2023, July 6-8, Torino, Italy.



Vincenzo Piuri, 2023-24 IEEE R8 Director-Elect, presents the award to the SPC 2022 winner Zixuan Huang (image credits: IEEE R8 SAC)

Young Professionals Meet-up at ICUAS 2022, Dubrovnik, Croatia

Ana Batinovic, Chair of IEEE Croatia Section Young Professionals Affinity Group

During the 2022 International Conference on Unmanned Aircraft Systems (June 21-24, 2022), the IEEE Young Professionals (YP) Meet-up was held in Dubrovnik, Croatia, organized by IEEE Young Professionals Croatia Section, with the support of IEEE Robotics and Automation Society Croatia Chapter and IEEE Student Branch of the University of Zagreb, Croatia. Meet-ups are envisioned to engage members and volunteers living in the same geographical location and enhance their professional networks. Such events can take the form of technical talks, panels, Q&A, followed by networking sessions. Every YP Affinity Group can apply for \$1500 grant to organize it.

The ICUAS 2022 IEEE Meet-up was a social networking event, an opportunity to make new contacts and explore opportunities for collaboration among Young Professionals. It took place in Orsula Lobby bar at conference venue Valamar Lacroma Dubrovnik Hotel. The main goal of the event was to bring together researchers from all over the world to exchange ideas and knowledge in a casual atmosphere. It was open to conference attendees, local IEEE members and other technical enthusiasts, free of charge. The event was attended by 106 participants, including 56 non-IEEE members and 50 IEEE members, including 22 GSM members.

We found that the event was very interesting for the young audience, especially due to the informal atmosphere of the chosen venue. The event was heartily accepted by the conference chairs, integrated into a conference program and promotional material were added to conference welcome packs.



Image credits: IEEE Croatia Section Young Professionals

2022 IEEE Workshop on Complexity in Engineering, COMPENG 2022

Riccardo Meucci and Francesco Marino, COMPENG 2022 General Chairs, Sergio Rapuano, IEEE Italy Section Chair

We are delighted to inform you that the sixth edition of the IEEE Workshop COMPENG, sponsored by IEEE Italy Section, has been held in Florence on 18-20 July 2022. The event has been hosted for the second time, at the Galileo Galilei Institute for Theoretical Physics (GGI) in a historical site named “Hill of Arcetri” as recognized by

European Physical Society (EPS). COMPENG is a series of international workshops founded in 2010 and aimed at providing a forum for experts and professionals working on the latest developments in complexity science and its application in an engineering perspective. Previous editions of the workshop were held in Rome, Italy (2010); Aachen, Germany (2012); Barcelona, Spain (2014); Catania, Italy (2016); Florence, Italy (2018).

This multidisciplinary conference included the presentation of 80 contributions (partly in presence and from remote) of the highest level. Of particular interest were five mini symposia on Neurocybernetics, Neuromorphic Photonics, Nonlinear Dynamics and Remote Monitoring. The last one focusing on the updated techniques on remote monitoring of infrastructures. These apparently disconnected issues are instead connected by aspects that are those of non-linear dynamics and more generally those of complexity, which is a multidisciplinary science. Among them, neural networks and network synchronization play a crucial role in our life.

Considering the success of the event despite the persistence of the pandemic, we would be pleased to re-propose the event in two years (2024) in the same place, hopefully this time fully in-presence. New stimuli from other IEEE Societies as the Technical Committee of Nonlinear Circuits and Systems (IEEE-CAS) and Photonics will be acknowledged and will contribute to making the event even more appealing.



Sergio Rapuano and Riccardo Meucci

Invitation for contributions to the 802.11 Standardization Working Group

Tuncer Baykas, Chair of IEEE Region 8 Standards Coordination

IEEE P802.11 is a working group on wireless local area networks under IEEE Standards Association. The working group is a part of IEEE LMSC (LAN MAN Standards Committee) formerly called IEEE Project 802. IEEE LMSC reports to the Standards Activity Board (SAB) of the IEEE Computer Society. Contributions on topics relevant to the IEEE 802.11 Working Group are invited from academia and researchers. Attendance for the purpose of these presentations can, upon request, be under the individual expert designation, as listed below.

Region 8 members are welcome to contact standards coordination team via standards.coordinator@ieee8.org for more information.

First Announcement of IEEE HISTELCON 2023

Massimo Guarnieri, IEEE Italy Section History Activity Committee Chair

HISTELCON is a flagship conference series of the IEEE Region 8 held every two years and dedicated to any aspects of the history of electrical engineering, electronics, computing and their impact on social and economical and development.

HISTELCON 2023 will be the 8th conference of the series, coming back to Italy after the 2012 Pavia edition. It will be a hybrid event, held both live and online. The conference official language is English, all presentation will be oral. The conference will be hosted in the magnificent Florence city center on 7-9 September 2023 supported by the IEEE Italy Section.

The conference leading topic is "Science and Technology or Technology and Science?". However, different topics are welcome, including but not limited to: technology museums, computers and microprocessors, device and system vulnerability, foundational research and big science, measurement systems and units, big corporations.

Save the date and join us in Florence!

More information will be soon available at <https://2023.ieee-histelcon.org>

Awards in IEEE Iran Section

Sayed Amin Atabak, Vice Chair of IEEE Iran Section Newsletter Committee



The 12th IEEE Iran Section Awards Ceremony was held virtually with Prof. Saifur Rahman, 2022 IEEE President Elect, as a guest, together with electrical and electronics prestigious professors from all over Iran, industry entrepreneurs, deans, counsellors, and students. The ceremony counted 600 registrants and 350 unique participants, and more than 100 live users on the IEEE Iran Section social media channels.

Mojgan Azizi, the IEEE Iran Section Web Development Committee Chair, welcomed all prestigious guests around the world and started the session officially. Prof. Vahid Ahmadi, IEEE Iran Section Chair, continued by appreciating Dr. Yazdani, the ICT Research Institute Chair, for all supports and collaborations with IEEE Iran Section. Plaque of appreciation handed over from IEEE Iran Section to Dr. Yazdani. Prof. Saifur Rahman praised

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the great potentials of the IEEE Iran section and its active members whose remarkable work is entirely voluntary for other members' growth. He talked about plans for members and the role of IEEE in past, present, and future of human's life.

IEEE Iran section Awards and Recognition Committee Chair, Prof. Jawad Faiz, presented the information about nominees of the 2021 awards and, in total, 17 awards are given in various categories, from lifetime teaching and lifetime research, over industry, student theses and student awards, to young professionals and women in engineering. The final words were from Eng. Mojgan Azizi. She admired the relentless and unparalleled efforts of team members and noted there was not such a fabulous event without them. At last, a memorable group photo was taken with all the prestigious guests.

Gevork B. Gharehpetian, Prominent Author of IEEE

Professor Gevork B. Gharehpetian, a professor at the department of Electrical Engineering of Amirkabir University of Technology and one of the most prominent researchers in the country in the field of smart grids and power systems, was introduced as the prominent author of IEEE. This Professor of Amirkabir University of Technology has been selected by IEEE for his investigation of the topic "Improving frequency control of multiple micro-grids in distribution networks" in January 2022. The selection of this professor of Amirkabir University of Technology and two other outstanding professors from Ohio State University, USA and ETH Zurich, Switzerland, has been announced in IEEEExplore.

Professor Gevork B. Gharehpetian has so far managed to write more than 1,300 journal and conference articles with more than ten thousand citations in the field of power systems.

Additionally, he is the author and translator of more than 15 national and international books, and is among the top 1% of the world's most cited scientists.

IEEE Uganda Section: "IEEE Continu>ED" Launch for Industry

Vincent Olema, Chair of IEEE Uganda Section Action for Industry



"IEEE Continu>ED" program is a new initiative to design and deliver industry-driven continuing education programs in Africa for practicing electrical, telecommunications engineers and IT professionals. In 2019, IEEE carried out research using focus groups to determine where the continuing education content offered by the IEEE overlapped with the needs of electrical, telecommunications engineers, and IT professionals. Sessions were held in several African countries including Kenya, Uganda, and Zambia. The stakeholders who attended these meetings were practicing engineers, scientists, from industry and academia.

The program is now running in Ghana, Kenya, Nigeria, Rwanda, Uganda and Zambia. The goal is to make "Continu>ED" a scalable and sustainable initiative that will continue to develop and grow in the future with support from other partners. The project is funded by the IEEE New Initiatives Committee with support from the Africa Council. Lucy Muchira, "IEEE Continu>ED" program

specialist for African Region, held strategic meetings in May 2022 with key partners in Uganda who themselves enrolled in the program.

Industry stakeholders from government, regulators and industry participated in a meeting on the 27th of July 2022 at Serena Hotel in Kampala, Uganda, and reviewed and discussed the program, and how to enroll their organizations. President of the Uganda Institution of Professional Engineers (UIPE), Andrew Muhwezi, attended the meeting and gave presentation entitled "The Role of Continuing Education for Engineers and Scientists". He remarked that engineering is a constantly evolving sector that requires engineers to grow along with the technical developments as part of the continuing education. He emphasized that training obtained by experienced professionals is critical knowledge to obtain after completing formal education. He explained that UIPE requires all engineers to acquire professional development each year. Points are awarded to engineers and are used to maintain their registration with the association. He outlined benefits of continuous education such as increasing skills, building confidence in tackling new projects, and career development. Vincent Kaabunga introduced guests to the IEEE and its history, mission and the array of IEEE activities.

John Matogo, Chair of IEEE Region 8 Action for Industry Engagement Committee, focused his presentation on the effects of cooperation between IEEE & Industry. He stressed the need for industries to partner with IEEE for skills development and carry out projects in collaborative ways.

Lastly, Lucy Muchira, explained how organizations could join the program and how the courses would benefit them and their employees. Notably she discussed that "IEEE Continu>ED" program is only available to the employees of participating companies. In order to participate in the pilot, companies and organizations should have a reasonable workforce of engineers and/or technology professionals for professional development. The employees of organizations that registered will have four months to take the courses offered. There are 18 course programs on offer free of charge to companies. She explained that the IEEE's continuing education offering is much broader as there is a catalog of 400 courses available at a fee.

The "Continu>ED" Program includes courses on Digital Transformation, Block Chain, Artificial Intelligence, Smart Grids, and Power System Standards. The program is already running in Kenya, Rwanda, Uganda and other African Countries. Participants are expected to provide feedback that will be used to improve the program. Companies represented by the participants will be offered an opportunity to nominate a senior leader to provide more feedback as well in a specific discussion. This way, continuation of development additional training contents is ensured to be relevant for electrical, telecommunications engineers and IT professionals

The acknowledgement for support and contribution to the success of the "IEEE Continu>ED" program in Uganda goes to: Kathleen Weeks for support and advice, Prof. Bruce Krogh, Mr. Burton Dich, Prof. Dr. K.M. Mathew, Lucy Muchira, Vincent Kaabunga, Henry Butele, John Matogo, Eng. Andrew Muhwezi, Mayur Kumar Chhipa, Jaramogi Khalfani Odhiambo, Zillah Nangobi, Vincent Olema, IEEE, IEEE Uganda Section, UIPE and ISBAT University.

Image credits: IEEE Uganda Section

