

Nigeria Section

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List the activities carried out to foster relations with Industry and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help your Section in your industry-related activities?

Lots of IEEE Activities have taken place within the past six(6) months. Most of them are sustainable and will be upscaled into lifelong initiatives going forward. It is expected that the emerging technologies are further expanded into sustained developments in the Future Directions of the IEEE Nigeria Section. The key activities and OUs/AGs are listed below;

- 1) Conference Partnership and Participation: 2019 started with the 1st Mechatronics Conference in Nigeria, held at the Federal University of Technology, Owerri.

In April 2019, the Nigeria Energy Forum featured the IEEE Humanitarian Activities for Young African Women Entrepreneurs (YAWE), the event took place at the Naval Dockyard, Admiralty Way, V/Island, Lagos, please check <https://www.thenef.org/> for more details.

Later in the year, the flagship conference of the Power and Energy Society (PES), POWERAFRICA took place in the Federal Capital Territory (FCT) Abuja, August 22-24, 2019.

This was followed by IEEEEnigComputConf'19: 2019 2nd International Conference of the IEEE Nigeria Computer Chapter at the Ahmadu Bello University, Zaria, Nigeria, October 14-17, 2019.

The year ended with The International Conference on Electronics Computer and Computation-ICECCO 2019 was held at Nile University between 10th - 12th December, 2019.

In all, the partners took turns to support the Exhibition of their products and services related to the theme of each event. New innovations were discovered and intellectual property rights (IPRs) developed for them, patents of the best set will soon be published.

- 2) Membership Drive: The Nigeria Section participated in the Digital Africa conference and IEEE Africon (Ghana) to expand membership and showcase more of the IEEE, in the Nigerian and West African way. More senior membership applications were received while existing members are now interested to become Fellows of the IEEE.
- 3) Women in Engineering: Nigeria got the approval to host her own Women in Engineering International Leadership Summits (WIE ILS) which provides regional opportunities to foster networking, mentorship, and collaboration. It was a great event!
- 4) IEEE Day 2019 Celebration in Nigeria Section The 2019 IEEE Day was celebrated by IEEE members in Nigeria at different locations.
- 5) IEEE Virtual Events (IVE) Africa (in Nigeria):

Session 1: Asset Performance Management (APM), presented on May 31, 2019 in three (3) locations in Nigeria (Portharcourt in Rivers State, FCT Abuja and Federal University of Technology, Akure, Ondo State). Topics Included:

- Key Outage Cases in T&D
- Intelligent Asset Strategy
- Extending Useful Asset Life
- Power Transformer Example
- Traditional Remote Monitoring & Diagnostics (RM&D)
- Transformer Digital Twin
- Minimizing Outages through Analytics
- Outage Prediction
- Network Connectivity
- Storm Readiness
- Vegetation Management
- Outage Restoration Techniques - a Range of Values
- Manual Control and Legacy Methods
- Positive Step over Manual
- Automation and Visualization
- Digitally Enabled
- APM Integration with ERP Architecture and other IT Systems

Session 2: IT/OT Convergence and Enterprise Data Management- Oct 8th, 2019 10AM EDT Topics Included:

- Grid Modernization
- Data Access
- Realizing Greater Value from Data
- New Sources of Data - UAVs and Robots
- Data Characteristics
- Ad Hoc Survey Results
- Recommendations

Past IVE in Africa which also took place in Nigeria as the co-ordinating center (2017-18):

- Cybersecurity
- Big Data
- SmartGrid
- Cloud Computing
- Renewable Energy: Waste to Energy

- Artificial and Business Intelligence, to mention.

NOTE: The IEEE Virtual Events (IVE) also gave certificates for those who passed the Online Quizzes.

List the activities addressed to Students and/or Young Professionals and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your students and YP-related activities?

- 1) Nigeria Innovation Challenge 4 Entrepreneurs (NICHE) IEEE R8 Entrepreneurship NICHE (Nigeria Innovation Challenge for Entrepreneurs) is part of the activities launched in 2019 by the Young Professionals to assist undergraduate and graduate students working on exciting school projects are encouraged to apply as there are special cash award categories for students. Graduate student members and non-members who have startups in mind (would be entrepreneurs) to gain new entrepreneurial and innovative skills..

Pitch on NICHE premier startup competition was \$10,000 and other perks. Every graduate of the last decade was free to apply and free to pitch if selected. NICHE applicants are being contacted presently for Incubation in Hubs and Startup opportunities (if eligible).

The IEEE R8 Entrepreneurship NICHE mentoring include the following topics:

- Business Model Canvas
- Marketing
- Pitching
- Product Design
- Growth

The website is www.niche.ng

- 2) The IEEE Humanitarian Digital Skills Acquisition is a skills empowerment program featuring an incredible line-up of IEEE global technology companies, Vice Chancellors, CEOs tech industry visionaries training youths on relevant skills that will enable them harness tech opportunities globally. Participants are expected to register online and indicate interested skills program. At the end of the program, participants will be eligible to enter a pool of tech opportunities offered by IEEE industry and technology partners OBJECTIVE is to Increase youths employability by providing relevant digital skills and entrepreneurship support.

Plan to achieve goal:

- Accelerate technology digital skills adoption
- Develop technopreneurship
- Increase local content solutions that meets international standards
- Youth engagement and employment creation
- Structure/Organisation:

Implementation Team: Institute of Electrical Electronics Engineers Young Professionals (IEEE YP), IEEE Humanitarian Activities (Nigeria), Federal Ministry of Communication & Digital Economy (Nigeria), The Digital Bridge Institute (DBI), Nigeria and other relevant stakeholder.

Stakeholders identified include Academia, Underserved youth, Office of Innovation and Entrepreneurship, women tech entrepreneurs, local entrepreneurs, Innovation Support Network (ISN) Hubs, Graduates, Students, National Youth Service Corp Members, Global tech companies.

Identify Key Activities such as;

- Campus & Tech Meetups
- Call for Applications
- Selection Criteria's
- Statewide/Zonal Trainings
- Online Mentoring and learning Resources

The IEEE Region8 can endorse, support and promote any or both of these events as regional event(s), at any point in time.

List the activities carried out to retain and recruit members and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your membership-related activities?

- 1) Conference Partnership and Participation:
IEEE Humanitarian Activities/Cisco - Eye Opener Hands-On Training, held at the Federal University of Technology, Owerri, January 2020.

April 1-2, 2020: The 5th Nigeria Energy Forum 2020 (NEF2020) will focus on safer, cleaner and sustainable energy services for all through a capacity building, training and development programme for policy makers, business leaders, energy innovators, professional engineers, industry experts and academics in Nigeria and other African countries. The key energy challenge and proffered solutions will be discussed and showcased on how to electrify millions of households, communities and businesses as quickly as possible, please check <https://www.thenef.org/> for more details.

Later in the year, the IEEE Nigeria Section will participate in flagship conference of the Power and Energy Society (PES), POWERAFRICA 2020 at Nairobi, Kenya in August 25-28, 2020. The Nigeria Section will participate in the Digital Africa conference in June, 2020 at the Federal Capital Territory Abuja, to expand membership and showcase more of the IEEE, in the Nigerian. The IEEE Nigeria Section will also participate at Region8 Conferences and events which promote the IEEE at yet unserved and underserved locations while sustaining IEEE interests in served locations. Events

such as the IEEE Region8 Students' Young Professionals' Congress 2020 will witness the participation of representatives of all our student branch chairs. More conferences and partnerships will be forwarded as soon as possible.

- 2) Women in Engineering: WIE organised units in all IEEE SBs nationwide will be empowered to do more and touch lives through community projects in 2020.
- 3) IEEE Day 2020 Celebration in Nigeria Section The 2020 IEEE Day will be celebrated by IEEE members in Nigeria at different locations.
- 4) IEEE Virtual Events (IVE) Africa (in Nigeria) for 2020 will focus on new topics geared at improving all lives through Emerging Technologies, especially for the differently able persons and vulnerable in the society.

List the activities intended to support chapters, affinity groups, and student branches and the results obtained. List the related initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your support to chapters, affinity groups, and student branches?

- 1) Volunteers Leadership Training for all organised units (OUs) and Affinity Groups (AGs) will be of paramount importance throughout the year 2020. The IEEE Nigeria Section Multipurpose Laboratories will be re-launched during these events and sustainable grants/scholarships will also be proposed as endowment funds for Clementina Saduwa(2007), David Okerefor (2019) and two others (Tolulope Adeoye- 2017 and Olawole Lanre Akinsanmi - 2017)
- 2) IEEE Flagship mini-conferences will be re-launched and regionalised as well, to help take technologies to unserved, underserved and served locations, for easy adoption and integration of the UN SDGs (17 Goals). The content will feature more of proposal writings, startup establishment, mentoring, industry and academia connections, community engagements, to mention but few.

The IEEE Region8 is welcome to support and share all our events and content at any point in time. Partnerships and collaborations are also welcome.



Challenges (with a focus on what support is required from Region 8)

Funding of logistics (venue and transport), promotional materials, visibility and low partnership/endorsements at Regional level are few challenges always encountered for the past few years of organizing similar events.

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