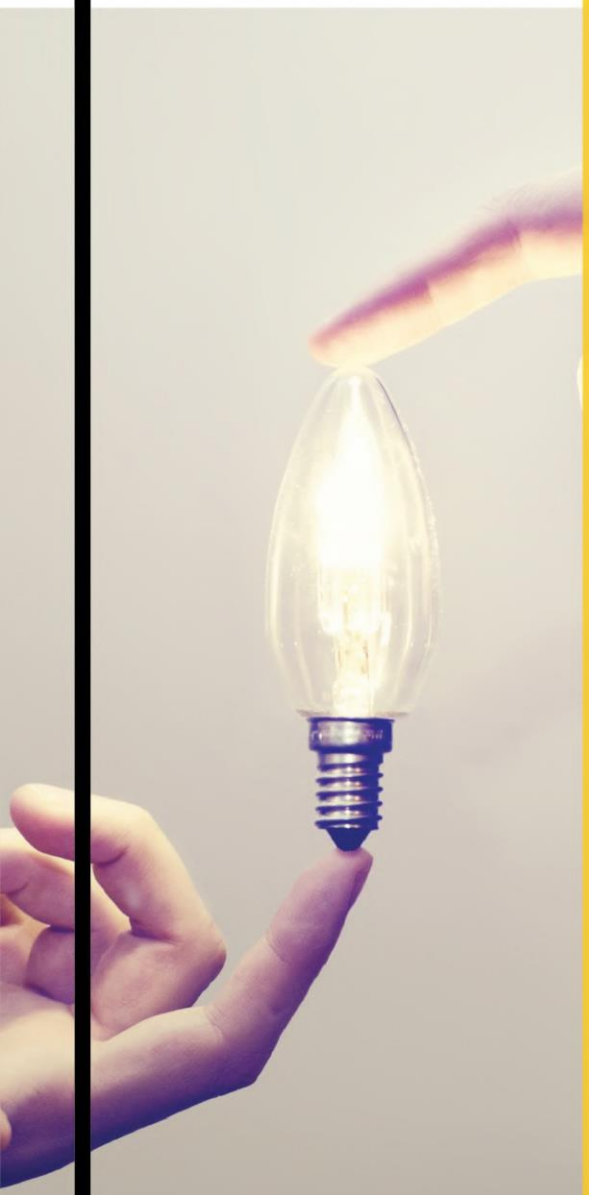
IEEE REGION 10
NEWSLETTER



IEEE REGION 10 CONNECT 2021

APRIL EDITION

IEEE REGION 10 NEWSLETTER

IEEE

CONTENT

WELCOME MESSAGES

Message from IEEE Region 10 Director

The past three months have been somewhat challenging as we continued to organize Region 10 events in virtual mode. The Region 10 Executive Committee Meeting in January and R10 Annual General Meeting in early March were both held virtually and were well participated. The Region 10 AGM was attended by IEEE President Susan Kathy Land, Past-President Toshio Fukuda, Executive Director Stephen Welby, VP MGA Maike Luiken, Past VP MGA Kukjin Chun, MD MGA Cecelia Jankowski, and Regional Directors Barry Tilton (R2), Tim Lee (R6) and Jason Gu (R7). The AGM was a great success and ran without a glitch thanks to the excellent coordination between Region 10 volunteers and IEEE staff from the Singapore office and MGA in the USA.

The other important presentations in Region 10 AGM were by Janina Mazierska, IEEE History Committee Chair and past Region 10 Director, Loretta Arellano on Sections Congress Virtual Training, Lorena Garcia on New IEEE Pre-University Volunteer STEM Portal, and by Sampathkumar on IEEE Humanitarian Activities/ SIGHT.
As we still don't see any relief in the near future from the ongoing pandemic, there is a strong possibility that we shall continue with virtual events in the next quarter too. Organizing large- scale virtual events can be very challenging requiring innovative and creative thinking by our volunteers for using online resources advantageously. I am happy to share that our volunteers outperformed and came out with great ideas to organize events with value.

Our philosophy is "*Member Value Creation* - **Let our programs create value to address member recruitment and member retention.**"

Region 10 continues its efforts on training volunteers. We organized a training workshop on 'Governance' and 'Conference Leadership Program' for the volunteer leaders of Region 10. The Region focuses on Conference Quality and there is a plan to organize more such programs to train more volunteers this year.

We have added one more subsection in Region 10. The newly formed Kuala Lumpur Subsection is the 40th Subsection. A new Life Member Affinity Group in Singapore Section has been formed and many more are expected this year. Region 10 is a very large, diverse, and growing region and we'll see further growth in the coming years.

A dedication ceremony, commemorating the recognition of 42nd IEEE Region 10 Milestone 'Giant Metrewave Radio Telescope (GMRT) in Pune, India' was held virtually on 30th March 2021. There are a total of 234 milestones in IEEE and 42 in Region 10 (38 in Japan, 3 in India, 1 in Australia).

Countries in Region 10 have great potential and there is a need to explore further possibilities of such milestone recognitions.

As Collaboration is key to success, I encourage organizational units to collaborate for various activities. Region 10 Young Professionals, Student Activities, Women in Engineering, Industry Relation, and Professional Activities have collaborated to organize member-focused events on enhancing the awareness of trending topics. Region 10 launched the 'IEEE 10Talk' webinar series with the first webinar on 'Innovation and Funding' on 3rd April. We would be coming up with more such webinars throughout the year keeping the interest of members and current trends in mind.

Region 10 Information Management committee has come out with an innovative idea of funding a portal, which would facilitate submission of proposals in an effective way. The committee is also planning a Q&A, 'Region 10 Director's Dialogue', recorded sessions for members, where Region 10 Director shall address various questions on selected topics. This is expected to be a regular feature.

Region 10 Educational activities committee is promoting the 'Reaching Locals' initiative and has started a YouTube Channel focused on different local languages aiming at effective dissemination of information to members and the community.

The Region 10 Awards and Recognition Committee has issued the call for nominations. I urge you to nominate deserving candidates for the R10 prestigious awards by the closing date of 30 May. Also please watch out for opportunities for funding and to participate in various contests organized by several Region 10 committees.

IEEE has established a single platform for all COVID19 related resources to support members during the pandemic. You can access the latest virtual educational opportunities, free ebooks, virtual networking, and more in one place by visiting covid19.ieee.org
As we all are waiting for the pandemic to be over, we wish soon to be able to meet and greeteach other in person. It is time to be creative and innovative. Let us put all our efforts to enhanceour skills to be future-ready. We have knowledge, resources, and potential, let our programs be designed to address challenges of the new normal.

Thank you.

Deepak Mathur
2021-2022 Region 10 Director

Message from IEEE Region 10 Newsletter Chair

Dear Region 10 Members,
It is my pleasure to welcome you to the second edition of 2021 IEEE Region 10 Newsletter. First of all, I would like to apologize for the slight delay in releasing this newsletter. As you may have noticed, we have a new name for our newsletter, and with the new name we are also givingthe newsletter a new look and format. IEEE R10 Today has been the name for our newsletter since July 2017, and we think it is a good timeto change the name and look of the newsletter to better reflect its current objectives and content. We ran the R10 Newsletter Naming Contest in March, and within just over a week, received more than 100 unique suggestions from around 90 enthusiastic members.

We really appreciate the strong support from our members. After going through all the suggestions, we have decided to name our newsletter the IEEE Region 10 Connect. Thank you and congratulations to the contest winners Navaneethakrishnan Ramanathan and Rajnish Gupta who independently came up with the suggestion. We will soon call for another contest to design a logo based on the new name, so watch out for the announcement.

The first edition of the IEEE R10 Connect features excellent content for your reading pleasure. We continue with our recently introduced technical column, and are honored to have another two (2) of our IEEE Fellows, Sri Niwas Singh and Sushmita Mitra, to write about their latest work on Control Strategies for Grid-connected PV System utilizing MPPT and Reactive Power Capability, and Radiogenomics and Deep Learning in Management of Brain Cancer, respectively. This issue also features a special report on the IEEE Region 10 Executive Committee Meeting in January and the IEEE Region 10 Annual General Meeting in March, both of which were held virtually. This issue also features another five (5) Personalities of the Month as well as six (6) Organizational Units of the Month articles. Besides, another COVID-19 heroes were also featured in the COVID-19 Personality of the Month column. Other articles received from various sections throughout the region rounded out this latest newsletter issue. We again thank all the contributors.

I would like to take this opportunity also to introduce the current line-up of our newsletter committee, with their short biographies below. The committee consists of old and new faces, and as we continue to expand, drop us a line if you are interested to be part of the team. Last but not least,to all readers, enjoy the newsletter and stay safe wherever you are.

Mohammad Faizal Ahmad Fauzi
Chair, IEEE R10 Newsletter Committee

2021-2022 Newsletter Committee

Committee Member	Portfolio
Mohammad Faizal Ahmad Fauzi	Chair/Chief Editor
Prashant R. Nair	Editor
Redwan Ferdous	Editor
Tridibesh Nag	Editor
Lau Bee Theng	Editor
W. M. W. Sharika Jayalath	Associate Editor
Garima Patel	Associate Editor
M. Naila Mukhtar	Webmaster / Social Media
Nabeel Ahmed Masoodi	Graphic Designer / Social Media

MOHAMMAD FAIZAL AHMAD FAUZI

Mohammad Faizal received his bachelor's degree from Imperial College London in 1999 and a doctoral degree from the University of Southampton in 2004. He is currently an Associate Professor at the Faculty of Engineering, Multimedia University, Malaysia. A very active IEEE volunteer since 2007, he served as the Chair for the IEEE Signal Processing Society Malaysia Chapter from 2008 to 2013, and the Chair for the IEEE Malaysia Section from 2017 to 2018. Under his stewardship, the chapter won the inaugural IEEE SPS Chapter of the Year Award in 2011. He also recently was awardedthe IEEE Signal Processing Society Meritorious Chapter/Regional Service Award. A member of the IEEE Region 10 Executive Committee since 2019, he currently serves as the chair for the newsletter committee.

PRASHANT R. NAIR

Prashant R. Nair is currently an Associate Professor in Computer Science & Engineering and Chairman of Rankings & Accreditation cell at Amrita Vishwa Vidyapeetham (University), Coimbatore, India. He has been visiting faculty at University of California, San Diego and Sofia University, Bulgaria as an Erasmus Mundus fellow. His intellectual contributions include 6 books, 50+ research publications and editorial board memberships of IEEE MAS Link newsletter of IEEE Madras Section, Computer Society of India (CSI) Communications and CSI Transactionsjournal. He has held IEEE leadership positions such as Chair-Publications, IEEE Madras Section; Vice-chair, IEEE Education Society chapter of IEEE India Council and rendered service for premier conferences such as IEEE India Council International Conference (INDICON) 2018, IEEE R10 HTC 2014 and IEEE All India Student Congress (AISC) 2013. Awards won include IEEE Education Society global chapter achievement award, six CSI Academic Excellence awards and fellowship of IETE.

REDWAN FERDOUS

Redwan Ferdous is professionally a certified project manager and electrical engineer. Currently he is leading as Senior Manager of the Electro Mechanical Engineering department of one of the projects of the largest healthcare chain of Bangladesh, Labaid Group. He is a veteran in cellphone manufacturing industry of Bangladesh. Heis a professional member of IEEE for the past 10 years. He has engaged with IEEE R10 Newsletter Committee as editorial board member from 2017. He has been serving the IEEE MGA Member Benefits Portfolio Advisory Committee since 2020. Also, he has served in different IEEE vTools position of IEEE Bangladesh Section, IEEE PES Bangladesh Chapter. Currently he is country representative for Bangladesh of

International Robot Olympiad' and 'World Robot Olympiad'. He is also international judge of Global Conrad Challenge and Conrad Challenge China. Also, he is Executive Committee member of one of the prominent volunteer organization of the country- 'Bangladesh Open Source Network'. Moreover, he is engaged in different professional and volunteer organization and activities as well as policy maker related to Humanitarian activities, Robotics, IoT, Data Science and Artificial Intelligence.

TRIDIBESH NAG

Tridibesh Nag received his masters and doctoral degree from Jadavpur University Kolkata, India. He is the former HOD of Electrical Engineering Department and presently the Principal of Diploma Section and Assistant Professor with the Department of Electrical Engineering, Netaji Subhash Engineering College, Kolkata, India. A highly active IEEE volunteer since 2006, and senior member of IEEE since 2017. He has held IEEE leadership positions such as Executive Committee member ofIEEE Kolkata Section, Newsletter Committee Chair of IEEE Kolkata Section, Membership Development Committee Chair, DEIS Chapter, IEEE, Kolkata section, Treasurer and presently the Secretary of PES Chapter Kolkata Section. He currently serves as one ofthe Editors for IEEE R10 newsletter committee. He has rendered service for several premier conferences such as, ASPCON 2020 and 2018, CALCON 2020 and 2017, IEEE TENSYMP 2019, ATS 2019 and is the Publication Co-Chair of IEEE India Council International Conference (INDICON) 2021. He was awarded with Outstanding Volunteer Award, IEEE Kolkata Section in 2018. His research interests include electrical machines, control and optimization of electrical drives, hybrid renewable power generation, power quality assessment, rural electrification, and energy conversion.

LAU BEE THENG

Lau Bee Theng is currently an Associate Professor in ICT and the Director School of Research, Swinburne University of Technology Sarawak Campus. Her research interests are mainly on assistive and alternative technologies, artificial intelligence, impact studies, learning and assisting people with special needs. She is a Senior Member of IEEE and Association of Computing Machinery, Professional Technologist (Malaysia Board of Technologist) and Certified Tester (International Software Testing Qualifications Board). She also involves actively in committees and projects inIEEE Sarawak Subsection, IEEE Swinburne Sarawak Student Branch; IEEE Region 10 Newsletter Committee and IEEE Malaysia WIE Student Network Advisory 2016; General Chair, IEEE Region 10 HTC 2020; technical committee, IEEE (technical--sponsor) ENCON 2019; publication co-chair, IEEE (technical-sponsor) ICONDA 2019; project leader in IEEE US Engineering Project in Community Service (EPICS) 2013, IEEE US HAC Events Fund to Humanitarian Technology and Sustainable Development Project, 2020, IEEE Region 10 HTA Committee Humanitarian Challenges, 2020; IEEE Region 10 PG Paper Contest, 2020 and Outstanding Volunteer in IEEE Malaysia, 2019.

W. M. WATHMINI SHARIKA JAYALATH

Graduated with B.Sc. (Honours) Eng. Degree specializing in Electrical & Electronic Engineering in 2018 from University of Jaffna, Sri Lanka. Currently she is working as an Production Engineer at Central Industries PLC and also she is pursuing her higher studies in the electrical engineering field in University of Moratuwa, Sri Lanka. She published various aspects of her undergraduate research project in the IEEE 9th International Conference on Information and Automation for Sustainability (ICIAFS) 2018 and the 2nd National Undergraduate Research Symposium 2019, Sri Lanka. She started her volunteering career in IEEE from the student branch level and recently, he extended it to the international level. Currently, she is contributing towards the regular release of the IEEE Region 10 Newsletter.

GARIMA PATEL

Currently a Final-year Undergraduate Student in Electrical Engineering from Manipal University Jaipur, Garima is an upcoming Business Operations Associate at ZS Associates, a reputed management consulting firm. She has been an active volunteer in IEEE for the last 4 years, starting from the Chairperson of her Student Branch and currently holdingthe responsibility of Subsection Student Representative in IEEE Delhi Section. She has also been selected as the Networking and Connections Lead in the IEEE India Council Young Professionals Coordination Team and has been awarded the 'Outstanding Student Volunteer Award' by the IEEE Delhi Section for her exceptional spirit of volunteerism.

M NAILA MUKHTAR

M Naila Mukhtar is currently doing a PhD from Macquarie University Australia. She has over five years' experience in industry and her research interests include Embedded System Security, Artificial Intelligence, Cryptography and Information Security. Currently, she is serving as Webmaster and social media coordinator of IEEE Region 10 Newsletter, Chair IEEE New South Wales (NSW) Women in Engineering (WIE) Affinity Group (AG), Vice-Chair IEEE Computer Society NSW Chapter and Treasurer IEEE NSW Young Professionals Affinity Group. She has actively participated in various technical and non-technical conferences and hosted/co-hosted the WIE track receptions, including Tensymp2018, ANZSCON 2017, IEEE WIE International Leadership Summit Brisbane, and Macquarie University Leadership Summit. She has collaboratively organized prolific events to support students and young professionals, promote gender diversity and inclusion, and professional development. She was the recipient of Macquarie University Best Student Services award (2018), and IEEE WIE Inspiring Student Member of the year award (2019).

NABEEL AHMED MASOODI

Nabeel Ahmed Masoodi is an undergraduate student in Electronic Engineering. He is 19 years old and lives in Karachi, Pakistan. He is working as the Head of Media in IEEE Dawood University of Engineering and Technology (DUET) Student Branch. It has been a year since he started Graphic Designing, and he also has interest in robotics. He has learned C, Java and Python and would like to learn more to achieve one of his goals to become a full-stack developer. He has also enrolled in many different courses such as Internet of Things, Artificial Intelligence, Ethical Hacking and WordPress. He is looking to start freelancing soon.

1. SPECIAL REPORTS ON R10 FLAGSHIP EVENTS

2021 IEEE Region 10 Executive Committee Meeting

IEEE Region 10 Executive Committee held their virtual 2021 meeting on 10th January 2021. The meeting, held from 7.30 AM to 1.30 PM Indian Standard Time over Webex virtual meeting platform, was attended by all the newly appointed executive committee members of IEEE Region 10 for the year 2021 (refer Table 1). IEEE Past President, Toshio Fukuda, and Past VP MGA, Kukjin Chun also attended the meeting.

Due to the virtual nature of the meeting, and the fact that Region 10 spans eight different time zones, the meeting was only scheduled for just over half a day, and was quite different from the previous R10 meeting. The meeting started with the address by R10 Director, Deepak Mathur, followed by messages by IEEE Past President, Toshio Fukuda and Past VP MGA, Kukjin Chun. R10 Past Director, Akinori Nishihara then gave an update on the region's activities and achievements for the year 2020.

Throughout the meeting, the activities and plans were presented and were due for review and approval before the R10 AGM on 6th and 7th March 2021. Each Executive Committee, led by the three Vice-Chairs (Zia Ahmed – Technical Activities, Byung-Gook Park – Membership Activities, Nirmal Nair – Professional Activities) presented their plans for the year 2021. Akinori Nishihara then presented the advisory and nomination, before financials and budget were discussed by the past and current Treasurers, Seishi Takamura and Rajendrasinh Jadeja. The meeting concluded with the sharing of the 2021 meeting calendar and AGM agenda by the Secretary, Sameer SM.

TABLE 1: IEEE REGION 10 EXECUTIVE COMMITTEE 2020

Region 10 Operations Committee	
R10 Director	Deepak Mathur
R10 Past Director	Akinori Nishihara
R10 Director-Elect	Chun Che (Lance) Fung
R10 Secretary	Sameer S M
R10 Treasurer	Rajendrasinh Jadeja

Technical Activities Committee	
R10 Vice Chair of Technical Activities	Zia Ahmed
R10 Awards & Recognition Committee Chair	Wu Qun
R10 Conference & Technical Seminar Committee Chair	Takao Onoye
R10 Conference Quality Management Committee Chair	Michael Ong
R10 Humanitarian Technology Activities Committee Chair	Jing Dong
R10 Industry Relations Committee Chair	Sanjay Kar Chowdhury
R10 Information Management Committee Chair	Kurnianingsih

Membership Activities Committee	
R10 Vice Chair of Membership Activities	Byung-Gook Park
R10 Life Members Committee Chair	Rajendra K. Asthana
R10 Membership Development Committee Chair	JeongYon Shim
R10 Section & Chapter Committee Chair	Amit Kumar
R10 Student Activities Committee Chair	Jennifer Chua Dela Cruz
R10 Student Representative	Warunika Hippola
R10 Women In Engineering Committee Chair	Emi Yano
R10 Young Professionals Committee Chair	Saaveethya Sivakumar

Professional Activities Committee	
R10 Vice Chair of Professional Activities	Nirmal Nair
R10 Educational Activities Committee Chair	Preeti Bajaj
R10 History and Individual Benefits Services Committee Chair	Jong Chang Yi
R10 Newsletter Committee Chair	M Faizal A Fauzi
R10 Professional Activities Committee Chair	Parkash Lohana
R10 Strategic Planning & New Initiatives Committee Chair	Seishi Takamura

R10 Advisory Committee	IEEE Asia-Pacific Limited Project Manager
Kukjin Chun	Ewell Tan
Ramakrishna Kappagantu	
Toshio Fukuda	

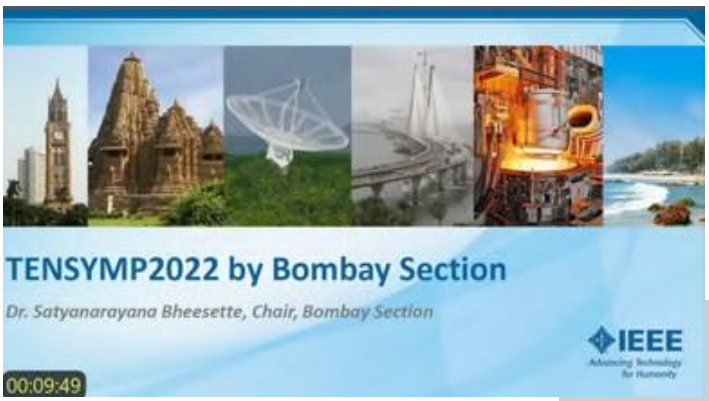
2021 IEEE Region 10 Annual General Meeting

For the second year running, the IEEE Region 10 Annual General Meeting (AGM) had to be held virtually due to the ongoing COVID19 pandemic. With experiences gained from the first-ever virtual R10 AGM in 2020, as well as the earlier 2021 R10 Executive Committee Meeting in January, the 2021 AGM for IEEE Region 10 was smoothly conducted via WebEx on 6th and 7th March 2021. Each day consists of a 4-hour session starting at 7.15 am and ending at 11.30 am Indian Standard Time. Besides the Executive Committee and Section Chairs from Region 10, the meeting was also joined by IEEE President – Susan Kathy Land; IEEE Executive Director - Stephen Welby; IEEE Vice President MGA – Maike Luiken; MGA Managing Director - Cecelia Jankowski; as well as the 2022 IEEE President-Elect Candidates – Saifur Rahman (Virginia Tech Advanced Research Institute), S K Ramesh (California State University, Northridge) and Francis Grosz.

The meeting started on Day 1 with a roll call by the Secretary, Sameer SM, followed by a welcoming address by the Director, Deepak Mathur. The Director started by giving appreciation to the outgoing Director, Akinori Nishihara for his outstanding leadership and achievements for Region 10 especially in the challenging time of 2020. The Director then updated the members on the history and current development in IEEE Region 10, before presenting several initiatives for 2021. Among others, the initiatives are an orientation program for committee chairs and volunteers, governance training for Section officers, conference leadership program, and engaging more volunteers in Region 10 Committees. The Director also stressed the three thrust areas which are member retention and continuation of students to Young Professionals (Membership Activities), Section-Chapter collaborative programs, conference quality and industry engagements (Technical Activities), and entrepreneurship and career advancement programs (Professional Activities).

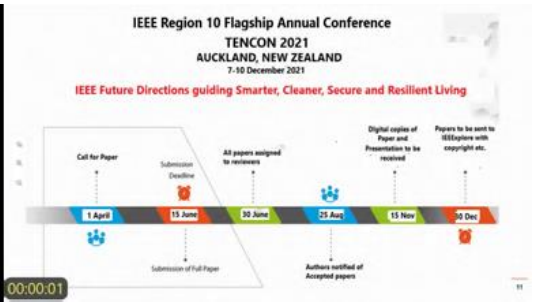
Following brief addresses by IEEE President, IEEE Executive Director, IEEE Vice President MGA, and Managing Director MGA, the Secretary presented the report on the R10 Executive Committee meeting. Akinori Nishihara then chaired a discussion session between the delegates and the 2022 IEEE President-Elect Candidates. The extracted question and answers from the session is attached in Page 71-76 of the newsletter. Day 1 concluded with the presentation from the three Vice-Chairs and the Treasurer.

Day 2 commenced with a presentation on the Nominations and Advisory Committee by Akinori Nishihara, and IEEE Humanitarian Activities and SIGHT by Sampathkumar Veeraraghavan. This was followed by reports from the four flagship events held in 2020; the IEEE



Region 10 Conference (TENCON) by Takao Onoye; the IEEE Region 10 Symposium (TENSYMP) by Celia Shahnaz; the IEEE R10 Humanitarian Technology Conference (R10HTC) by Lau Bee Theng; and Students, Young Professionals, Women in Engineering and Life Members (SYWL) Congress by Zia Ahmed. Presentations on TENCON 2021 (Auckland, New Zealand), TENSYMP 2021 (Jeju, Korea), R10HTC 2021 (Bangalore, India), TENCON 2022 (Hong Kong), TENSYMP 2022 (Bombay, India) and R10HTC 2022 (Hyderabad, India) were then delivered by the respective Section chairs. The rest of Day 2 featured discussions on 2021 Sections Congress Virtual Training, 2021 IEEE strategy, awards, and new STEM portal for volunteers.

R10 Director Deepak Mathur adjourned the meeting with a vote of thanks to all participants. Each participant was presented with mementos from Region 10, posted to their home address. The following section highlights the 2021 planned activities for several selected R10 committees.



Professional Activities

Parkash Lohana

IEEE Region 10 Professional Activities Chair

The following is the thrust area set by the R10 Director for professional activities:

"Entrepreneurship and Career Advancement Program"

This year R10 PA committee set the plans that are in line with the mentioned thrust area and the objectives of the committee, we are happy to share this with our members that the PA committee especially focuses more on entrepreneurship initiatives, lifelong employability, and career prospects for IEEE Student, YP, and WIE members. R10 PA committee in collaboration with Sections sponsors the certification courses offered by IEEE Learning Network (the details will be announced in the last week of March 2021). In parallel with these activities, the R10 PA committee has planned to begin the Webinar series; the main objective of which is to enhance the soft skills of our members. R10 plans to support the selected Section for arranging the SMARTECH/HARDECH and IEEE future direction workshop. In 2022, the IEEE R10 PA committee will introduce the R10 PA Outstanding Section Awards and R10 PA Outstanding Volunteer Awards.

Educational Activities

Preeti Bajaj
IEEE Region 10 Educational Activities Chair

The IEEE Region 10 Educational Activities Committee (EAC) is committed to implementing programs specifically intended to serve and benefit IEEE members in educational pursuits, the engineering and scientific community, and the general public in Asia and Pacific Region. Guidance and assistance to Region 10 entities will be provided in organizing pre-college education programs, workshops related to TryEngineering and STEM, and other EAC-related activities.

Hence, IEEE Region 10 Educational Activities Committee (EAC) would like to invite all IEEE members of R10 Council, Section, Subsection, Society Chapter, Women in Engineering (WIE), Young Professional and Life Members Affinity Groups to submit proposals under five categories listed below:

- New Innovation Challenge under Educational Activities
- Call for a workshop on TryEngineering and STEM
- Social Media Challenge under Educational Activities
- Call for Proposal for "Reaching Local Initiatives"
- Call for Capacity Building Workshop under Educational Activities

2021-22 IEEE R10 EAC

The detailed guidelines & submission templates for all the openings can be found on the IEEE R10 EA homepage (https://ea.ieeer10.org/) and submission of the proposal to be done at https://events.ieeer10.org. Before submitting the proposal, participant OUs must read all the guidelines from the website and submit the proposals accordingly. For any query on proposal submission, you can contact at region10eab@gmail.com with cc to Dr. Preeti Bajaj, Chair, IEEE R10 EAC at preetibajaj@ieee.org

2021-22 IEEE R10 REACHING LOCAL AMBASSADORS

Student Activities

Jennifer Chua Dela Cruz, IEEE Region 10 Student Activities Chair
Warunika Hippola, IEEE Region 10 Student Representative

IEEE Region 10 Student Activities Committee, known well as the R10 SAC, is streamlined to realize the mission for 2021 in alignment with IEEE's core values. The highlight of the plan for 2021 is the mission of increasing the student membership in the Region and especially upgrading the outreach capabilities of the SAC within the R10. The team is working hard on delivering the best to R10 students. The significant activities carried out by R10 SAC annually, are well-aligned to be executed this year as well.

The Training and Webinar Series is focused on providing the necessary information for students on IEEE SB operations as well as technical and professional knowledge. The annual plan of the trainingand webinar is already set and all the sessions will be conducted by very keen and active speakers.The sessions will be online and will be live-streamed through IEEE Region 10 Student Activities Committee social media channels. For those who are interested, the sessions will be recorded and uploaded to the Region 10 YouTube channel as well.

Funding opportunities at R10 SAC will be open under Special Call for Covid Related Projects and IEEE R10 2021 Student Branch Membership Development & Leadership Training fund (SBMDLT). This year, the newly initiated funding portal of the R10 Information Management Committee will be used for all R10 SAC funding calls and it will eliminate all the barriers of certain countries to use some of the online platforms.

Awards and Contests will be calling nominations through a web-based platform. IEEE Region 10 Outstanding Volunteer and Outstanding Student Branch Advisor awards are awaiting to recognize the most deserving candidates. IEEE Region 10 Undergraduate Project Video Contest and Student Research Paper Contest will be open as a spotlight for the students to showcase their exemplary research and project works. The Student Research Paper Contest is open for graduate students as well, so that not only students, but graduate students will also get an opportunity to discuss their research interests.

The R10 SAC team lead by Prof. Jennifer Chua-Dela Cruz is committed and motivated in organizing all these activities for 2021 and they are reachable for any kind of issues or interests you may have. R10 SAC team is looking forward to a fruitful year with IEEE R10 SAC which will benefit the students in all aspects.

Humanitarian Activities

Jing Dong

IEEE Region 10 Humanitarian Technology Activities Chair

What we have done for 2020?

- Encourage R10 Sections and individuals to work in the area of Humanitarian Technology (HT). Three HT projects were selected for funding via R10 TENHUMCH2020. Projects from Bangalore Section, Sendai Section, and Hyderabad Section were funded USD1000 each for their Humanitarian project development. Two projects were selected for funding via HAC Initiate Program Supporting Fund for the COVID-19 response. Programs from Vizag Bay Section and the Sarawak subsection were funded each for USD2000. There are 72 SIGHT groups formed in R10 out of 169, this is 43% of the global count. And 31 (42.5%) projects from R10 were funded by IEEE region affiliation of HAC/SIGHT COVID Projects. IEEE Hyderabad Section, IEEE Madras Section & IEEE Sri Lanka Section were successful in securing the first round of #COVID-19 special project funding. It shows that R10 HAC has always played the important role in organizing and participating in HAC Global activities.
- Enhance visibility of R10 HTA and give recognition to significant humanitarian work and projects done by R10 members: HTA Outstanding Volunteer Award 2020 was awarded to Dr. Bijoy Antony Jose from Kerala Section for his excellent contribution on promoting regional and local Humanitarian technologies activities in the year of 2020.

- Active Communication with R10 members to promote Humanitarian Technology: The HTA tracks were designed and conducted during almost every R10 flagship conference, such as TENSYMP2020, SYWL2020 & R10HTC2020. R10 HTA shall provide a wide range of communication platforms for all members who are interested and enabled for humanitarian technology activities.

What will we do for 2021?

R10 HTA shall encourage and promote more IEEE members to participating in Regional HT projects and bridge a regional representative channel for IEEE HAC. The work plans for R10 HTA 2021 are:

- R10 HAC Highlights Video Contest: The R10 HTA Highlights Video Contest aims to improve the SIGHT members' project presentation skills to a wider online viewing community, which may include the technical and non-technical audience. The theme of the contest this year is the "Regional Representative Humanitarian Projects Showcase". This contest also provides a platform for experience sharing amongst different areas within Region 10. Certificates will be provided for the top 3 winners.
- R10 HTA-Oriented Project Enabler (TENHOPE2021) Project Fund: TENHOPE2021 is an additional support funding for a humanitarian project in R10 that aims to inspire and enable IEEE R10 volunteers to carry out and support impactful humanitarian technology and sustainable development activities at local level. This project aims at orienting talent minds towards identifying local community problems and developing technology solutions, focusing on actual implementation reaching the beneficiaries. It also provides an opportunity for IEEE members and participants in R10 to work and cooperate with NGOs and other organizations for the benefit of advancing technology towards the SDG in our region. Maximum USD2000 will be funded per project. Total Budget for this project is up to 15,000 USD.
- Training Sections & Volunteers in HTA: The R10 HTA Webinar is scheduled in April, July and October, aiming to share feature highlights, best practices and experience sharing in Region IEEE members as well as SIGHT volunteers. The training/discussion will be made online and also could be scheduled in R10 Flagship Conferences upon request.
- 2021 HAC Awards and Recognition: 2 categories of awards will be called for nominations: 1) R10 Outstanding HAC Section Award and 2) R10 Outstanding HAC Individual Award. R10 HTA will continue to recognize significant work and projects done by IEEE R10 Sections and individual members.

Women in Engineering

Emi Yano

IEEE Region 10 WIE Chair

Region 10 WIE promotes women's involvement in STEM by enhancing networking, knowledge-sharing, and recognition of outstanding WIE achievement in R10. Currently, more than 16000 WIE members are active (as of January 2021) in Region 10. Our objectives are: (1) Promote women involvement in science and engineering in R10, (2) Facilitate the development of supporting program and activities of WIE in R10, (3) Enhance networking and knowledge sharing of WIE, (4) Recognize WIE's outstanding achievement in R10 and promote nominations for MGA awards from R10. Projects for 2021 are:

- **WIE Engagement Project:** We have more networking opportunities for accelerating communication between WIE members in R10.

- **WIE Support Funds:** R10 WIE encourages the development of local activities to solve the social issues under the COVID-19 situation.
- **WIE Visibility Enhancement:** We continue to enhance networking and knowledge sharing for IEEE WIE members through the events at R10 Flagship Conference; TENCON, TENSYMP, and R10HTC 2021.
- **R10 WIE Awards:** R10 WIE identify outstanding Section WIE Affinity Groups, Student Branch WIE Affinity Groups, and outstanding WIE volunteers (student/professional) for IEEE R10 WIE awards.
- **MentorHer (Mentors-Mentees program)**: As a new initiative, R10 WIE starts mentoring program in 2021.

Stay tuned with us for the updates on R10 WIE Website, Facebook, and LinkedIn page.

Young Professionals

Saveethya Sivakumar

IEEE Region 10 YP Chair

2021-2022 IEEE Region 10 Young Professionals (YP) committee represents the IEEE community of young, enthusiastic, dynamic, and innovative members and volunteers across the Asia Pacific region. IEEE Region 10 comprises 43 Section YP Affinity Groups (AGs) with more than 34000 members. This year we have 19 vibrant R10 YP committees, dedicated to working towards providing quality services for our members and affinity groups. Our objectives are; 1. Improve Student to YP Transition, 2. Professional Development for R10 YPs, 3. Enhance R10 YP and Industry collaborations, 4. Organize Regional level YP-focused events, 5. Membership Development and Retention and 6. Formation and Revamping of YP AGs.

- Region 10 Young Professionals Summit: A virtual event to provide technical knowledge, career development training, and virtual networking opportunities for YPs.
- Career and Leadership Aid Program (CLAP): A regional event organized by young professionalsfor students/GSM to articulate their strengths and experiences through career guidance & training sessions.
- YProSS (Young Professionals Scalable Skills): Professional development activities to be initiated at Section level with financial support from Region 10 to conduct skill development activities for YP engineers focusing on career advancement.
- New/dormant AG seed fund: Provides financial support for inactive or newly formed YP AGs to kick start their activities and consequently gain enough momentum to function as a fully sustainable YP AG. For more details and submissions please visit here.
- YP student joint activities fund: This fund will be initiated to provide financial support for YP AGs activities organized by YP AGs for students, to guide them in their professional & career after graduations, and to improve YP-student engagement and collaborations. For more details and submissions please visit here.
- Region 10 Young Professionals Affinity Group Supervisions and training: Series of YP AG Meetups and Training Sessions will be virtually organized to provide the necessary volunteer leadership guidance. YP AGs will be frequently updated via mailing lists, WhatsApp, and Wechat groups on announcements related to IEEE events and services. We further continue to help revamp inactive AGs and form new affinity groups within R10.
- Volunteer Recognition: To recognize the efforts and achievements of YPs and YP AGs who have made substantial contributions to IEEE and YPs.

Region 10 YP Outstanding Volunteer Award & Region 10 YP Outstanding Affinity Group Award
Region 10 YP Revolt Contest (to recognize outstanding final year student members who are potential future YPs of R10. The winners will be appointed as R10 YP ambassadors to promote the importance of continuing IEEE membership after graduation).

For frequent updates please follow R10 YP on;

- New/dormant AG seed fund (https://yp.ieeer10.org/r10-yp-new-dormant-affinity-group-fund/)
- YP student joint activities fund (https://yp.ieeer10.org/r10-yp-joint-activity-fund/)
- Facebook (https://www.facebook.com/ieeer10yp)
- Instagram (https://www.instagram.com/ieeer10yp/)
- Linkedin (https://www.linkedin.com/company/ieeer10yp)
- Website (https://yp.ieeer10.org/)

For inquiries, please contact us at: r10yp@ieee.org

Life Members

Rajendra K. Asthana
IEEE Region 10 Life Member Committee Chair

2021-22 Region 10 LM Committee consists of 7 members. 2 LMAG Chairs, 2 Advisors & 2 IT Engineers besides Chair. Major activities for 2020 were the formation of LMAG at Hong Kong, four R10 LMC meetings & six LM Committee meetings during the year, R10 SYWL Congress in September/October 2020, and All India SYWL Congress 2020 during December 2020, both in virtual mode. In spite of the pandemic, LMAGs in R10 conducted 82 activities (2nd highest to 99 in IEEE). Globally, 3 LMAGs (R2, R8 & R10) were formed and 2 (R8 & R9) were dissolved in 2020. 5 LMAGs in R10, namely Delhi, Kerala, Hyderabad, South Australia & Tokyo LMAGs, conducted 6 or more activities.

Major highlights of R10 SYWL Congress were a new competition (IEEE R10 Life Members Photographic Competition and cash prizes were given to Winners), LMAG meeting between all 16 LMAGs for the first time, sharing session by 3 LMs on their successful career journey in IEEE, and sessions on LM activities, IEEE Milestones, Vtools, Collabratec. The events were well attended & participation varied from 38 to more than 300. Plans for 2021 include the launch of R10 website for the benefit of R10 Life Members, formation of 3 new LMAGs, exploring possibilities of launching new competitions/awards for R10 LMs, to have more interactions with LMAGs/LMs, and to implement ways & means to extend the involvement of those LMs who are not attached toany LMAGs. Each LMAG is expected to carry out a minimum 6 activities, out of which 4 must beof technical nature.

2 . R10 PERSONALITIES OF THE MONTH

R10 Personality of the Month - Mohd Hafiz Ismail

Malaysia Section

Mohd Hafiz Ismail joined IEEE in 2010 and has been actively contributing as an IEEE volunteer when he co-founded and became the Vice-Chair of IEEE Malaysia Section Sensors and Nanotechnology Joint Councils Chapter in 2017. This joint council's chapter is the first council chapter established in the Malaysia Section. In 2018 and 2019, Mohd Hafiz was elected as the Executive Committee of IEEE Engineering in Medicine and Biology Society Malaysia Chapter and during the 29th Annual General Meeting, Mohd Hafiz was elected as the Executive Committee of IEEE Malaysia Section – Educational Activities Chair 2019 - 2020.

IEEE DAY 2020 REGIONAL LEAD FOR REGION 10 (ASIA & OCEANIA)

He was also part of the IEEE Day Team 2018 - 2020, serving as IEEE Day Ambassador for Malaysia Section in 2018 - 2019 and R10 Regional Lead for IEEE Day 2020.

Mohd Hafiz Ismail is currently an academic staff at the Faculty of Electronic Engineering Technology, University Malaysia Perlis. He was a visiting researcher at Institute FEMTO-ST, Besancon France in 2013 and Institute of Applied Mechanics, National Taiwan University in 2015. Between 2006 and 2020, Mohd Hafiz has initiated and led various educational outreach and university social responsibilities programs. He was awarded with Excellence Service Award in 2009 and 2019 as well as Maal Hijrah Personality Award by University Malaysia Perlis.

Since 2017, Mohd Hafiz has involved as advisor, coordinator, instructor and speaker for more than 20 national and state levels university and pre-university programs, in collaboration with Ministry of Education Malaysia, Ministry of Higher Education Malaysia, National STEM Centre Malaysia,various State Education Departments, IEEE Organizational Units and private educational companies. These programs have benefited more than 10000 school administrators, teachers, students and parents as well as university

R10 EDUCATIONAL ACTIVITIES OUTSTANDING GROUP AWARD 2019 RECIPIENTS DURING NATIONAL STEM COLLOQUIUM AT UNIVERSITI MALAYSIA PAHANG.

RECEIVING AWARDS AND RECOGNITIONS DURING IEEE MALAYSIA SECTION APPRECIATION LUNCH IN CONJUNCTION WITH IEEE

volunteers – in line with the purpose of IEEE EducationalActivities Board i.e. to serve the educational pursuits of IEEE members, the engineering and scientific communities, and the general public. STEM initiatives by IEEE Malaysia Section led by Mohd Hafiz has been awarded with STEM Mentor-Mentee Merit Award during Malaysia Technology Expo 2018. In recognition of his outstanding contribution and services for educational activities to the IEEE Malaysia Section, Mohd Hafiz was selected as the recipient of IEEE Malaysia Section Outstanding Volunteer Award 2019, R10 Educational Activities Outstanding Group Award 2019, and R10 Educational Activities Outstanding Volunteer Award 2020.

Recently, Mohd Hafiz has been elected as the Executive Committee of IEEE Education Society Malaysia Chapter during its 13th Annual General Meeting. He is also currently a member of the STEM Portal Testing Group and IEEE TryEngineering Translation Project under the IEEE Educational Activities Board.

R10 WIE Personality of the Month - Riri Fitri Sari

Indonesia Section

Riri Fitri Sari became an IEEE member in 1994 and has been actively contributing as an IEEE volunteer from that year onwards when she helped the committee of the APCC 1994 hosted by the IEEE Indonesia Section. She served in the executive committee of the Indonesian Section in various positions. In 2011 till date, Riri Fitri Sari has served as the Women in Engineering Affinity Group Coordinator for Indonesia Section.

During the 2012 R10 Meeting in Calcutta, India, Riri Fitri Sari and Agnes Irwanti from Indonesia spent as an IEEE member, have made a significant impact on her professional as well as personal life.

Prof. Dr. Riri Fitri Sari is currently working as a tenure track professor at the Electrical Engineering Department of Universitas Indonesia. Between 2006 and 2014, she supported the Universitas Indonesia Rector as the Director of Information Technology (Chief Information Officer), which required her to lead the infrastructure and application system development towards the university's digital transformation. She led the university of Indonesia team to win the Indonesia Tesca Award for being a smart campus. She also led the Universitas Indonesia

collaboration with several industries such as Huawei technology who donated the CDMA EVDO system for training purposes in 2007. She was a tenure track Professor in computer engineering, in which she led her research group in protocol engineering, computer network, IoT, and Blockchain technology.

Her volunteering experience to encourage the young generation to be attracted to STEM is also in line with her position as the President of Indonesia Science Project Olympiad (ISPO), since 2012. She chaired the board of Jury to encourage high school students to love STEM through science projects and to present their work at the science fairs. She also served as a judge in many national ICT & award competitions such as Indonesia best CIO, Indonesia best learning organization, as well as selection for overseas scholarships and research grants. These activities are mutually aligned, thus enabling her to anticipate the adoption of new technology based on the current real condition in the society and promote STEM education.

In 2020, the IEEE Indonesia Section WIE affinity group has won the IEEE global humanitarian technology grant. This program, which is part of the humanitarian technology for Covid-19 pandemic initiative, was initiated by Dewi Liliana and Nur Afny, involved strategic partnership with some women against disruptive information (WADI) associations to campaign and conduct Training of Trainers for "Combating Misinformation".

Another major and challenging worldwide initiative led by Riri Fitri Sari is the UI GreenMetric World University rankings, which ranked 912 universities from 84 countries, and became the first world university rankings on sustainability. She worked with the UI GreenMetric member universities to evaluate and document their effort to build a green and smart campus as well as other UI GreenMetric Indicators such as built smart buildings and the use of Building Information Modelling (BIM). She and her team have written books on "The making of UI GreenMetric" (2019) and "The making of UI GreenMetric Network", in addition to various research publications on Information Technology deployment in society with state-of-the-art approach.

R10 YP Personality of the Month - Saaveethya Sivakumar

Malaysia Section

Saaveethya Sivakumar is an Engineer, Academician, Researcher and a proud and active volunteer at IEEE. Saaveethya received her PhD in Mechatronics Engineering at Monash University in 2020 and her B.Eng. Electronics and Communication Engineering (1st class Honours) at Curtin University in 2014. Currently, Saaveethya works as a lecturer at Curtin University Malaysia. She is the proud recipient of Keysight Best Electronic Communication Graduate Award presented by Curtin Malaysia in 2015 and the Monash Vice-Chancellor's International Inter- Campus PhD Mobility Grant in 2018. According to Saaveethya, IEEE continues to play a major role in shaping her professional career.

Saaveethya is a member and volunteer at IEEE for the past nine years. She has gradually movefrom Student Branch (SB) to Section to Region and Global volunteer leadership positions. In 2013,she stepped into volunteering with IEEE as the secretary of Curtin Sarawak SB.

Malaysia Section, Women In Engineering Outstanding Volunteer Award in 2016


IEEE MGA Student Activities Committee Face to Face Meeting at Portland, Oregon 2020

She played a major role in organizing the 2013 IEEE Exhibition on Technology of New Era and led a team in publishing a technical proceeding booklet for Malaysia Section. In 2014, Saaveethya was elected as the SB Chair of IEEE Curtin Sarawak, wherein the SB organized more than 100 activities in a single year and was globally recognized with the IEEE Exemplary Student Branch Award in 2014. Saaveethya has a key interest in enhancing society standards through technology. She has initiated Educate Rural Malaysia Program in 2016 that aimed to create awareness among the rural communities in Malaysia on the importance and benefits of engineering and sciences. She has also volunteered as the advisor for Light of Borneo (organized by AIESEC Curtin Sarawak in collaboration with Curtin Sarawak SB) in 2015, which is an initiative that aimed to provide ecologically sustainable & cost-effective lighting for underprivileged and marginalized communities in Sarawak Malaysia.

Her contributions have also focused on empowering Women in Engineering (WIE). In 2016, she initiated the IEEE WIE Student Network, intending to create a fresh WIE student volunteer culture in Malaysia through facilitation and providing the necessary guidance for WIE student activities. Saaveethya and her team managed to form the first three WIE SB Affinity Groups (AGs) in Malaysia within the first 2 months from the launch of the initiative. This has been the first key milestone for WIE SB AGs of Malaysia Section. She has also contributedat the R10 level as part of the R10 WIE Supporting Volunteer Committee from 2016 to 2018. Moreover, she was also involved with the Women in leadership subcommittee as the secretary in handling the Collabratec group dedicated for leadership aspirations of women engineers and scientists. Saaveethya was the publicity chair of Malaysia's first IEEE Women in Engineering International Leadership Summit held in 2018, where she led the publicity team in developing and implementing strategies for promoting the summit to an international audience. In recognition of her contribution towards women in engineering, she was awarded the IEEE Malaysia Section's Women In Engineering Outstanding Volunteer Award in 2016 and Monash Engineering & IT Women's Leadership Award in 2018.

Saaveethya's service to the R10 Student Activities Committee (SAC) started in 2017, when she was appointed as the R10 SAC Zonal Student Coordinator for South-East Asia. She also worked as the point of contact between IEEE China student volunteers and R10 SAC in reviving student activitiesin China which resulted in a positive impact. Consequently, she was appointed as the R10 Student Representative 2019 -2020. She was also part of the MGA SAC 2019-2020 representing IEEE R10 Student members and providing regional support for the MGA SAC initiatives.


IEEE Region 10 Executive Committee Meeting at Queenstown, New Zealand 2020

"I cherish every experience with IEEE R10 and MGA SAC. I am honored to be able to represent student members of the largest region of IEEE." Said Saaveethya. In addition to representing more than 50000 student members of R10, Saaveethya has also initiated and coordinated many IEEE student-related projects at the regional level. In 2019, she and her team launched the first R10 SAC Chair and SSR manual, highlighting terms and guidelines to execute successful Section-level SAC programs. She led a team to establish a strong network between the SAC Chairs and SSRs in R10. Saaveethya and her team worked on providing funding opportunities for Sections and Student Branches (e.g. Membership Development and Leadership Training fund and Joint SB Fund) specifically aiming to enhance quality of IEEE student activities. She coordinated the Regional Student Branch Website Contest 2019-2020 and assisted the R10 SAC team in coordinating the R10 Postgraduate Paper Contest and Undergraduate Video Contest. Saaveethya also provided her assistance for the launch of IEEE R10 Special Call for Proposals Related to Covid-19, an initiative which focused on identifying innovative technical approaches of R10 students towards solving issues related to Covid-19. In addition to this, Saaveethya has delivered keynotes, guest lectures and talks promoting IEEE member benefits and services across R10 countries, namely Malaysia, Sri Lanka, India, Indonesia, Japan, Australia, Bangladesh and New Zealand.

In 2020, Saaveethya Co-Chaired the Student Track of IEEE R10 Students Young Professionals Women in Engineering and Life Members (SYWL) Virtual Congress. She contributed in designing and executing the student track program that consisted of seven sessions delivered by 37 globally recognized speakers. She took a lead role in initiating the external collaborations for R10 SYWLC 2020, namely IEEE Industry Engagement Society, IEEE Entrepreneurship, IEEE Etta Kappa Nu Society, IEEE Industry Relations Society, IEEE Volunteer Leadership Program and IEEE Centre for Leadership Excellence. She led a team in launching the R10 Student Branch Partnership program, which is a new initiative that provided opportunities for R10 SBs to partner with R10 SYWL Virtual Congress with the aim of maximizing students' participation. She and her team initiated exclusive networking sessions and exciting contests for student delegates, which were the key highlights of the Congress. The SAC and WIE joint contest was sponsored by Life Member Funding for student activities, where Saaveethya took the lead in the coordination towards securing the funds for R10 SYWLC 2020. In recognition of her contributions to IEEE R10and MGA SAC, Saaveethya has been appointed as the 2021-2022 Young Professionals Committee
Chair of IEEE R10 and the 2021 Students to Young Professionals Transitions Committee Chair of IEEE MGA SAC. It is noteworthy to highlight the fact that Saaveethya is the first female Young Professionals Committee Chair of Region 10.

As her concluding remarks, Saaveethya shares her thoughts about being a volunteer leader at IEEE, *"IEEE has played a major role in shaping my career, profession and my personality through leadership opportunities and providing the platform to network and collaboratively work with pioneers and leaders across the world. I consider being part of IEEE network is an honor and a privilege to cherish. On top of all, I consider the valuable global level friendships I have earned through IEEE, as*

Speaking at the SYW Congress Sri Lanka in 2019

one of the biggest fortunes in my life. I would like to use this opportunity to also thank all my advisors and mentors for their constant guidance and support. IEEE acts as a bridge that connects the ocean of opportunities for its volunteers and members. Here are my two cents for all young and enthusiastic students and young professionals; Make use of IEEE as the platformto Contribute, Learn and Grow. Dream Big. Work Hard. And Never Ever Give Up! YOLO "

R10 Student Personality of the Month - Sai Divya Nallapaneni

Hyderabad Section

"Growth and Comfort will not come together!"

- A quote that always motivates and makes to drive forward despite many hindrances.

Ms. Sai Divya Nallapaneni is an undergraduate final year student pursuing her bachelor's degreein Electronics and Communication Engineering as major and Computer Science as a minor at G.Pulla Reddy Engineering College, Kurnool, Andhra Pradesh, India. She has been an IEEE member since 2017 and has been contributing to various events at the Student Branch, Section and Regional levels as a pro-active volunteer. Currently, she is serving as the Scholarships Outreach Initiative Lead at IEEE CS SYP, Regional Student Ambassador at IEEE Computer Society, Zonal Student Representative of IEEE Ananthapur Sub-section, and Chairperson at IEEE CS GPREC SB. Previously, she has served as the Section Lead at IEEE Xtreme 14.0, Section Ambassador at IEEE PES Day 2020, IEEE Brand Ambassador, IEEE PES Day 2019 Ambassador and IEEE Xtreme 13.0 Ambassador.

Acknowledging her works related to the tech community, and her vision in uplifting women, she received the IEEE R10 WIE Outstanding Student Volunteer Award for the year 2020. She was also awarded IEEE CS Richard E Merwin Scholar 2019 for her exemplary contributions to IEEE Computer Society at Student Branch and Section Levels. Being meritorious in studies, she has been granted with Grace Hopper Celebration India Scholarship for the year 2019 and also been awarded with the Best Girl Student of the GPREC award for the academic year 2019-2020. She has also been one of the Finalists for Shri Pralhad P Chhabria Award 2021 given by H.O.P.E Foundation in association with IEEE India Council and IEEE WIE AG - Pune Section.

Divya says that she started her quest to learn and explore new things from the first year of her undergraduate studies that made her be part of many organizations and NGOs like IEEE, ISTE, IE (India), Aasya Foundation and She Empowers. She is a promising individual who always loves to create an impact with her unique approach in dealing with things. Talking about her IEEE journey and involvement, she has been an IEEE member since 2018. She mentions that she was inspired and motivated by her senior, Mr. Ajay Kumar Machani (PES Day Chair 2020).

With the support and encouragement from her student branch, she started her journey as a delegate to the college events andin time she started volunteering and served in various roles for major events like All Hyderabad Power and Energy Student Congress 2018, All India Computer Society Student and Young Professional Congress 2019, All Hyderabad Computer SocietyStudent Congress 2020 and All Hyderabad Women in Engineering Student Congress 2020. Her zeal to encourage, energize and empower Women made her to work for IEEE Women in Engineering AG, where she led many initiatives at college level, specifically mentoring educated school children from underprivileged schools regarding their careers in STEM fields. She adds, "*Nothing comes in our way until we start grabbing up*". She has attended many conferences and met many people whose actions continuously invigorated her thoughts and made her part of this learning journey despite many hurdles at the start. Her enthusiasm in traversing about opportunities made her learn new things and became part of them.

To the young dynamic leaders, who are reading this, her suggestion is to start grabbing whatever comes on one's way, because one can learn something out of every experience and believe that success beckons only the ones who accept the challenges and move forward despite struggles.

R10 Life Member Personality of the Month - V K Damodaran

Kerala Section

Prof. V.K. Damodaran joined the league of more than 400,000 members of the prestigious professional society of electrical and electronics engineers viz., IEEE in 1981. He became a Senior Member in 1990 and Life Senior Member in 2012. Since the transition of Kerala to a Section from a sub-section under Bangalore section in 1984, Damodaran was associated with expanding the member strength and reach of IEEE in Kerala, as well as to the rest of India, through his multifarious professional activities and his official work of science and technology promotion.

Working as Newsletter editor of Kerala Section; as organizer of many conferences; as technical editor and author of engineering books in the local language and English; as IEEE Section executive, and as Head of the State Science and Technology administration set-up, Damodaran (endearingly called by colleagues as VKD), was the natural choice for being elected as the Chair of Kerala Section in 1991. As the India Council Newsletter Editor thereafter for 10 years

in two spells; as the Executive Vice-Chair of IEEE India Council in 2001; as General Chair of ISGT Asia (Smart Grid) conference in 2011; as R10 Life Member Committee Chair in 2016; as MGA level Member of Life Member Committee in 2017 & 2018; as Member of sub-committees of IEEE EAB related to Engineering Projects in Community Services, Humanitarian Activities, Accreditation, Editing, Chair of Asia Teacher in Service, and the like; as Advisor or General/Technical Chair of several other international conferences organized by Kerala Section, and currently as the General Pacific Power and Energy Engineering Conference 2021, VKD has been a mentor, leader, or doer in spreading the message of IEEE in the Section, in India Council, in Region 10, and also globally.

VKD has a unique style of turning his career into a hobby and hobby into a career; working with the people and working as a statutory officer; conducting research on the people and with the people as well as for the people; rising in protest as a consumer activist, protector of environment and nature; science popularizing; author & public speaker; broadcaster & communityeducator; quasi-judicial officer; director of several technical departments; international consultant (mainly for UN) on energy and environment, and even as Secretary to Government of Kerala. He has travelled to and worked in over 50 countries; taught at College of Engineering, Guindy (now Anna University) & CREC (now NIT Calicut) and served as Assistant Director & Headof Technical Sciences at State Institute of Languages Kerala, and as Regional Electrical Inspectorto Govt. He has served as Founder Director of S&T and Environment and Energy Management Centre-Kerala as well as Founder Controller of Rajiv Gandhi Centre for Biotechnology; Managing Director of International Network on Small Hydro Power, Hangzhou, China and the supervisor of implementation of UNIDO Regional Centre on SHP (for Africa) in Abuja, Nigeria, and the like. In official positions and in IEEE, VKD is noted for his outreach and for creating an IEEE image of ethical engineering.

Public Awards that came in recognition of his work of 58 years, the latest being The Kerala State Renewable Energy Award 2019 (Lifetime Achievement Award for RE promotion in the State), Lifetime Achievement Award by Kerala Consumer Guidance Society, Lifetime Achievement (Section Chair) Award by IEEE India Council (2020), The TMA Gold Medal and Management Leadership Award 1999, Third Millennium Medal from IEEE President (2000), Outstanding Volunteer Award by India Council (2000), Historic Achievement Award for Application of Hybrid RE to remote rural areas in Africa by IEEE R10 (2012), IEEE EAB Award for design of outstanding teacher training module for early career faculty (2014), IEEE R10 Outstanding Contribution to Continuing Engineering Education Award (2014), Kerala State Award for Protection of Silent Valley Rainforests (2010), Energy Conservation Award by Energy Conservation Society (1996), andseveral others by Kerala Section over the years.

Currently, VKD is Chair of Kerala Section Consultants Network, and also the Chair of Kerala Section Grievance Redressal Committee. He is guiding the following institutions in an honorary capacity for the past decade or more:

- Chairman, Centre for Environment and Development
- Chairman, Foundation for Advanced Clean Energy Studies
- Chairman, Chakshumathi Assistive Technology Centre for the Blind
- Chairman, Nature's Green Guardians Foundation
- President, Vakkom Moulavi Foundation Trust
- Director and Mentor (R&D and Training) Team Sustain Ltd., Kochi [Solar & Waste to Energy]
- Director General, Experience Foundation
- Director General, International Non- Governmental Cooperation Organization for Renewable Energy (INGCORE)
- Member of Kerala State Council for (and EC) Science, Technology and Environment
- Board (and EC) of EMC-Kerala
- Trainer & Chair of judging committees on innovations by school students and the youth nationally.

The vast knowledge fund and network of IEEE globally, nationally, regionally, and locally in Kerala, are the confidence giving elements for all these "wanted, can't wait activities" in these present times.

3 . R10 ORGANIZATIONAL UNITS OF THE MONTH

R10 Large Section of the Month - Seoul Section

Jae-Hyun Kim, CheonWon Choi, Heewon Seo, JeongYeon Shim, Hongil Yoon, and Seokhyun Yoon, IEEE Seoul Section

IEEE Seoul Section was established in 1976. Since then, the membership of the Seoul Section has increased gradually. Presently, the Seoul Section is working as a large section of Region 10, supporting 26 chapters and 18 student branches. For the last 25 years, the Seoul Section has not only built a large membership base but also hosted a large number of educational and technical activities. No doubt, such an enhancement of the Seoul Section was enabled by the efforts – made by the Seoul Section consistently – to well educate students, to host conference and technical workshops beneficial to members, to patiently coordinate chapter and student branches, and not to forget recognizing invaluable members.

Initially, the Seoul Section made good efforts to educate students. One such effort was to hold IEEE Seoul Section Student Paper Contest annually. Last year, the Student Paper Contest was held on 12 December, 2020, wherein 34high-quality papers were presented in the three sessions in a virtual form. It was a meaningful contest to recognize students who have steadily demonstrated advanced research in the difficult situation of COVID 19. After a rigorous review process, one Grand Prize, two Gold Prizes and three Silver Prizes were awarded to winners. The Student Paper Contest in 2020 is noteworthythat the research results were not only original and high-impact. The Student Paper Contest is providing a great opportunity and stimulus to preliminary engineering researchers by presenting guidelines for future dreams and technologies that can contribute to humankind.

Secondly, the Seoul Section has made efforts to host conferences and workshops beneficial to its members. It is notable that the Seoul Section hosted IEEE Region 10 Conference (TENCON) in 2018 and will hold IEEE Region 10 Symposium (TENSYMP) this year. With the experience of TENCON 2018, the Seoul Section is hosting TENSYMP 2021 (www.tensymp2021.org) this year. It will be held at Grand Hyatt Jeju, Republic of Korea, from 23rd to 25th August, 2021. This is a prestigious flagship technical conference of IEEE Region 10. The theme of TENSYMP 2021 is "Good Technologies for Creating the Future" and its aim is to bring together researchers and engineers from academia and industry to overcome the present difficulties and create a prosperous future. There will be best paper awards and student travel grants. All accepted and presented papers will be submitted to IEEE Xplore digital library.

Thirdly, the Seoul Section has made efforts to patiently coordinate chapters and student branches. Such efforts resulted in the vitalization of chapters and student branches. This year, IEEE Vehicular Technology Society (VTS) Seoul chapter held the "Mobile Communication Technology Workshop" from 23rd to 24th February, 2021 in Seoul. This workshop, which was conducted in both online and offline formats due to COVID 19, focused on contemporary topics; vertical 5G services and 6G technologies. 160 participants joined in this event and discussed the communications technologies for realizing the theme "Beyond 5G and Toward 6G". It was also notable that most of the participants were the VTS Seoul chapter and the Seoul Section members. The graduate and undergraduate student membership of the student branches in the Seoul Section number over 200. They are supervised by 19 volunteering faculty. Most activities focus to serve as the lively intramural networking of students and faculties with major emphasis in the provision of mentoring on academic/research/career activities and plans. Many academic events serve to challenge the students' research endeavors. Many other activities in the form of formal seminar meetings or informal get-together meetings are hosted in local bases.

Fourthly, the Seoul Section has made efforts not to forget recognizing invaluable members. As ways of recognizing members, the Seoul Section endeavors to elevate the grade of an eligible member, strives to explore a well-deserved member for IEEE awards and discovers a potential member to voluntarily work for IEEE.

R10 Medium Section of the Month - Lahore Section

Sobia Baig, Vice-Chair for IEEE Lahore Section

Total Number of OUs fall under IEEE Lahore Section (R00003)	
Number of Subsections:	2
Number of Chapters:	6
Number of Affinity Groups:	4
Number of IEEE Student Branches:	42
Number of IEEE Student Chapters:	52
Number of Student Affinity Groups:	17

IEEE Lahore Section was established as the Pakistan Section in 1968. In 1998, the Pakistan Section was renamed as the Lahore Section. IEEE Lahore Section is engaged in Advancing Technology for Humanity through its multifarious professional and student activities. In 2018, IEEE Lahore Section celebrated its 50-year Anniversary with the participation of R10 Director 2018 Prof. Dr. Kukjin Chun.

ANNUAL GENERAL MEETING 2019 OF THE IEEE LAHORE SECTION WAS HELD IN FEBRUARY 2020.

The 1st IEEE YP Leadership Conference in R10 was organized by the Young Professional Affinity Group in February, 2020 with the collaboration of IEEE Lahore Section and all IEEE Lahore Section Technical Chapters. It was inaugurated by Dr. Susan Kathy Land, President of IEEE. More than 2400 participants from all over Pakistan joined the conference with five different tracks.

INMIC is the flagship annual conference of IEEE in Pakistan. IEEE Bahawalpur Subsection under IEEE Lahore Section organized the 23rd INMIC in 2020, in Islamia University of Bahawalpur. To engage volunteers and disseminate knowledge and skills, IEEE Lahore Section organized more than 25 Webinars during the COVID-19 pandemic. A significant impact of the two Webinar Series is observed, as collectively more than 7000 people joined the webinars and there was on average 68.7% attendance.

The IEEE Lahore Section has won several awards and accolades. Some of the recent achievements include:

- 2020: IEEE Darrel Chong Student Activity Award - 2020 for All Pakistan Electrical Symposium at University of Engineering and Tech – Lahore and 11th IEEE Annual Engineering Project Exhibition at UCET - The Islamia University of Bahawalpur.
- 2020: Dr. Asjad Amin – IEEE Outstanding Branch Counselor and Branch Chapter Advisor.
- 2019: Muhammad Hamza Ihtisham – IEEE VoLT Graduate.
- 2018: Outstanding Section Membership Recruitment and Retention Performance Award.

R10 Small Section of the Month - Northern Australia Section

M. Olsen, Chair for IEEE Northern Australia Section

IEEE NORTHERN AUSTRALIA EXECUTIVE COMMITTEE ANNUAL GENERAL MEETING – DECEMBER 2020

IEEE Northern Australia Section was established in 1994 and recently celebrated its 25th anniversary. IEEE Northern Australia covers distances of some 2,200 km East-West and 2,800 km North-South encompassing the Northern Territory, Papua New Guinea and the Northern areas of Queensland. Despite being a small section, Northern Australia has strong membership retention rates and focuses on delivering relevant content. IEEE Northern Australia's headquarters is at Townsville, Queensland with a secondary base in Cairns. It also has a Northern

Territory Subsection based in Darwin. IEEE Northern Australia has a strong Power and Energy Society Chapter and a joint Communications - Microwave Theory & Techniques Society Chapter. Given the Section's proximity to the Great Barrier Reef, it also has an Oceanic Engineering Society representative in the Executive Committee. The Section has Young Professionals and Women in Engineering Affinity groups as well as a Student Branch extending across three University campuses. The Northern Australia Section also sponsors several university engineering awards for academic excellence each year. In 2020, Australia started the year with severe bushfires and A/Prof Mal Heron gave a *Communications in Bushfire's* technical talk for the local community. The Northern Australia Section then adapted to COVID-19 implications by switching to virtual activities and focusing on content generated within the region. The Section launched the IEEE Backyard Invention Series (IBIS – Australia's iconic bin chicken) to showcase the ingenuity of its members who were predominantly constrained to their homes. Topics ranged from *Green Turtle Nesting* by Ron Goodwin to *Dunny Drama's and the 12V pump* by Dr. Graham Woods, intertwined with technical presentations such as *Planning your Home Solar System with a Battery* by A/PROF Keith Kikkert and *Space 2.0 – the Buccaneer Project* by Natalie Stevens. Last year, the Section held its flagship Peter Arlett Lecture with David Leitch presenting on *The Economic Consequences of Technology Change in Electricity for North Queensland*. The Northern Australia Section collaborated with Engineers Australia to boost the Women in Engineering affinity group impact through co-hosting an International Women's Day Breakfast and technical panel. It also worked with the local primary school community to engage with students on engineering careers with robotics and electronics, and was judges for the regional primary school robotics lego competition.

IEEE BACKYARD INVENTION SERIES (IBIS – AUSTRALIA'S ICONIC BIN CHICKEN) AND REGIONAL ROBOTICS COMPETITION JUDGES

The Northern Australia Section is grateful to have the 2021 Membership Development Plan selected as one of IEEE's top 10, and to receive the 2020 R10 award for best small section membership growth. In 2021, the Section hopes to build closer ties with Industry, Young Professionals and the student community to help the region overcome the challenges of distance and strengthen our electrical & electronics engineering community.

R10 Subsection of the Month - Bhutan Subsection

Kamal K. Chapagai, Chair for IEEE Bhutan Subsection

The IEEE Bhutan Subsection was founded in 2018 after institutionalizing the IEEE Student Branch in 2014 by Dr. Tshewang Lhendup, Assistant Professor for Electrical Engineering Department and Dean of Academic Affairs at College of Science and Technology, Royal University of Bhutan. The Subsection is the first of its kind in Bhutan and has a membership consisting of faculty from Electrical Engineering, ECE and Information Technology departments.

The Subsection aims to provide a platform for faculty and students to be the professional members of IEEE Professional body; learn from other experts and contribute to the advancementof science and technology for community development.

The main focus area of the Subsection is research capacity and professional developmentof faculty and students while promoting the College and University for building collaborative networks and internationalization through various research events and publications. To this end, the IEEE Subsection in collaboration with two research centers: The Center for Renewable and Sustainable Energy Development and the Center for Disaster Risk Reduction & Community Development Studiesof the College organizes webinars and conferences for faculty and students to showcase their research findings and learn fromresearchers outside Bhutan. In its first three years, the subsection organized numerous talks and seminars with the highlight being organizing an international conference on the 5th and 6th February, 2021.

Under the student development series, a series of talks by industrial experts and other dignitaries are scheduled. Additionally, hands-on workshops and training were organized by IEEE volunteers and members in various areas including robotics, big data, and satellite development. This provides students to tackle real-world problems while enhancing their analytical and technical skills.

Some members of the IEEE Subsection have also collaborated with Bhutan standard Bureau to work out standardization of Bhutanese standards to IEEE. Under volunteer and community services, three members joined the core Technical Support Group as volunteers in March-April 2020 to provide technical assistance to the Southern Region National COVID-19 Task Force, Phuentsholing and developed the Web-based application software for collecting, storing, and generating decision making information about people evacuated for safety from the Indian Town at the Bhutan-India border during COVID-19 pandemic. Many other IEEE Subsection members provided volunteer services in conducting surveys and data entry.

Some of the recent accomplishment of the IEEE Bhutan subsection is:

- Invited for IEEE SA and Bhutan Standard Bureau MOU meeting
- Invited talk by Dr. Tshewang Lhendup in Sukatha Adhiveshn 2020 (SA2020).
- Best presenter honorable award to Mr. Namgay Tenzin at SA2020

R10 Student Branch of the Month - Panimalar Institute of Technology (PIT)

S. Anishka, Chair for IEEE PIT Student Branch

"The only impossible journey is the one you never begin" - Tony Robbins

IEEE PIT SB was founded in the year 2013. It has 23 student chapters and 1 affinity group (IEEE Women in Engineering). Every year, the Student Branch maintains a membership retention level of 60% and more than 100 new students are added each year. IEEE PIT SB is one of the dynamic Student Branches in Madras Section and R10. The primary goal of the Student Branch is to inspire, enable, empower and energize its student members to enhance their technical interests by providing them a platform to showcase their skills. It provides a chance for individuals to exhibit their potential on various occasions and helps in the growth of their career. Even though the pandemic affected the SB, it did not fail to connect with students all over the globe. The SB guided students by organizing several career enhancement talks such as general interview procedures, career and professional development, how to prepare for group discussions, gateway to software Industry, and many more which helps the students in placements and their interviews. IEEE PIT Student Branch has played host to more than 600 events which are not limited to guest lectures, seminars, workshops, faculty development programs, online contests, awareness programs, short term courses, and Webinars with a wide reach of more than 15,000 people across the globe. These events inculcate various emerging technologies among students, provides an opportunity to explore and volunteer, bridges the gap in finding mentors, improves leadership and networking skills, and support various humanitarian activities. The pillar of IEEE PIT SB is the Student Branch Counselor, Mr. Arun M., who constantly motivates the young minds in volunteering and shaping them to become a better version of themselves.

IEEE PIT SB has organized several events in collaboration with various organizations across the Sections. The SB's social media team holds a special credit in publicizing and making the interested people utilize the opportunity by attending events. The most valuable treasure to IEEE PIT SB is its zestful volunteers who work tirelessly to enhance the Student Branch activities. The Student Branch volunteers enthusiastically take up roles in initiatives such as IEEE CS Compute, IEEE Day, IEEE PES DAY, IEEE CS SAC, IEEE MadC, IEEE YESIST12, IEEE Xtreme, IEEE Inspire India,
and many more.

IEEE PIT SB conducts ice-breaking sessions every month and celebrates all special occasions to make people aware of its importance by organizing captivating events and keeping its members

thrilled and engaged. Lots of promotional activities are organized for membership advancement such as yearly membership drives to keep students aware and to spread ideologies about the benefits of IEEE and IEEE Technical Societies, encouraging members to participate in IEEE regional conferences by providing scholarships to them, honoring active volunteers with medals and certificates, and organizing talks and workshops to help students to understand the beauty of science and engineering. IEEE PIT SB is one SB that is passionate about making a difference through IEEE.

R10 Student Branch of the Month - University Teknikal Malaysia Melaka (UTeM)

Ting Chee Fung, Chair for IEEE UTeM Student Branch

IEEE Universiti Teknikal Malaysia Melaka (UTeM) Student Branch was formed in 2016. Since then, the Student Branch has organized a good variety of activities that revolves around the members' engineering knowledge and skill development and networking opportunities. The SB has around100 members all of whom strive hard to serve the best for its members and community.

IEEE UTeM SB strongly believes that IEEE is essential to the global technical community and technical professionals everywhere. The SB is widely recognized for the impact of its technology contributions for the community. IEEE is always engaged in an enterprise-wide strategic planning process. A summary of the long-range strategic plan, termed the IEEE Envisioned Future, details the main elements of the program of the SB.

As students are a vital component of the branch's future, IEEE UTeM SB aimsto connect studentswith the industry by creating a platform full of excitingevents and activities.

Students interested in the industry can get hands-on experience; develop knowledge and skills in terms of soft skills and technical skills.

2020 was a year full of challenges due to the COVID'19 pandemic. However, the UTeM IEEE SB continued to serve and perform its best. UTeM IEEE SB won several awards and accolades, and the summary is as shown below:

- 2nd place in the IEEE Global Student Branch Website Contest 2020
- 2nd place in the IEEE Region 10 Student Branch Website Contest 2020
- IEEE Regional Exemplary Student Branch Award 2020
- 9th place in Malaysia and the 1339th place in the world for IEEEXTREME 14.0 Programming Competition

COVID-19 Personality of the Month - Rajagiri SB

MAKE A DIFFERENCE - AN INITIATIVE FOR STUDENTS IN NEED

P. Aiswarya, IAS SBC Treasurer for Rajagiri IEEE Student Branch
Diya Denny, Technical Coordinator for Rajagiri IEEE Student Branch

The Covid-19 pandemic has resulted in educational institutions all around the world being shut down in order to maintain social distancing and avoid the communal spread of Covid-19. Most institutions were able to shift to online education without any major issues and were able to continue to provide quality education to all students in the country. But the same cannot be said for a developing nation like India wherein many students rely on the government and public educational institutions. Most families could afford to provide a smartphone or a tablet for their children. Some families of students who attend government schools could not have this luxury. This meant that these students were no longer able to have access to education and their future was at stake. The government did take action by providing education over television networks, but some families whose children attended government schools didn't have access to a television. This led to students coming together and learning in places where there was a television, which puts them at risk of being infected.

Volunteers at Rajagiri IEEE SB wanted to do something for these disadvantaged school children and the community. This led to the beginning of the *make a difference* campaign wherein the members of the Student Branch as well as all the members within the Section were informed about this initiative and asked to contribute any amount possible. This initiative saw overwhelming support from the members within the IEEE Rajagiri Student Branch as well as college students and their family and friends. This campaign was held for a week at the end of July 2020 and after a week of tireless campaigning, a total amount of Indian Rupees 100,000 was raised. Using this money, 12 mobile phones were procured to benefit 12 school students. An additional amount of Indian Rupees 1000 was also given along with the device so that they could take a mobile plan for the next six months. These 12 students were personally identified from different parts of Kerala (Thiruvalla - 5, Kottayam - 4, Thodupuzha - 1, Alappuzha - 2) on thebasis of academic performance and recommendation from their school principal.

As IEEE members, we should always strive to pave the way for the advancement of humanity and work towards the betterment of our community. This was the motivating factor behind initiatingthis campaign. "Advancing Technology for Humanity" the slogan of IEEE is something that the IEEE Rajagiri SB volunteers took to heart and decided to act upon. The student community in the Kerala Section is a very strong and vocal community that has the power to affect real change in the society. And this initiative brought out the best from this community to affect a positive change in the lives of 12 school students.

Check out the multimedia version of the COVID-19 Personality of the Month at the link https://newsletter.ieeer10.org/home_april2021/covid-19-videos/

4 . R10 TECHNICAL ARTICLES

Control Strategies for Grid-connected PV System utilizing MPPT and Reactive Power Capability

Sri Niwas Singh, Professor, Department of Electrical Engineering, Indian Institute of Technology Kanpur, FIEEE

Due to increasing demand and environmental concerns, the PV power has become one of the fastest growing sources of electrical power generation and the emphasis is being given to the cost-effective utilization of this energy. The large scale, single-stage PV system is widely being considered for grid connection. For running the grid connected PV plant in a successful manner with effective performance, the proper operation and scheduling of PV power plants is required. Most of the PV array modelling are based on diode circuits and are not suitable for large PV systems. The conventional maximum power point tracking (MPPT) schemes discussed in the literature do not work properly in partial shaded conditions (PSCs).

PV Modelling:

The classical model is suitable for small PV arrays. But when the size of the array increases, e.g. for large scale -grid integrated PV systems, the classical model is not suitable, because large number of electrical components will be required and thus, simulation time is substantially increased. Furthermore, for modeling the case of partial shaded condition, the flexibility for the change in parameter is limited. The results of the Piecewise Linearised Model (PWL), which is an improved diode circuit model, are compared with the mathematical model. The mathematical model gives very smooth PV curves as compared to another model. The shortcoming of the normal mathematical model is that after maximum power point, the PV voltage represented by the curve is less than the actual one. This problem is overcome by the modification in the mathematical equations of the PV module. The modified mathematical model gives almost accurate PV characteristics of PV array [1]. By utilizing the capacity of the DC-AC power converter of the grid connectedPV system, the reactive power can also be fed to the grid along with the real power.

Also, the methodology to derive the P-Q capability curve has been developed so that by injecting P and Q powers, the grid-connected PV unit can be

properly utilized as reactive power compensator. Such a curve describes all the possible values that can be assigned as reference for real and reactive powers, in order to make the control scheme effective. To validate the algorithm, the results of the approximate procedure have been compared with those provided by simulations performed with a detailed model of the PV system developed in the PSCAD/EMTDC environment, and a good agreement has been obtained. Furthermore, for PV system common operation, which is a system operating at maximum power point, the reactive power limit curve is also derived for changing environmental conditions i.e. for various irradiance and temperature. The P-Q capability of 375 kW PV array [1] is given in Figure 1. The dotted lines show the reactive power limits of the PV array at MPP. It is worth noting that the knowledge of the capability curve (giving P and Q limits) enables to perform classical load-flow studies on power systems with high penetration of large-size PV units in the same way as they are normally conducted in presence of standard synchronous machines.

Control Strategies

The designing process of various control schemes such as PLL control, current control, DC-link voltage control and MPPT control schemes which cooperate with each other in intermingled manner, can be done considering the plant transfer function, gain and phase margin, bode plots, controllers' proportional and integral parameters. For improving MPPT performance, a modified Incremental Conductance (INC) method with variable voltage perturbation size has been adopted.A DC-link voltage controller has been proposed based on Feedback Linearization (FBL) technique. The proposed voltage controller cancels out the effect of nonlinearity of the PV characteristics inthe control process and thus, improves the dynamic performance of the controller. The voltage response of the controller shows the same dynamic behaviour at different operating points and is not disturbed when the atmospheric condition is changed. The reactive power injection has been done successfully by changing the reactive power reference of the current controller.

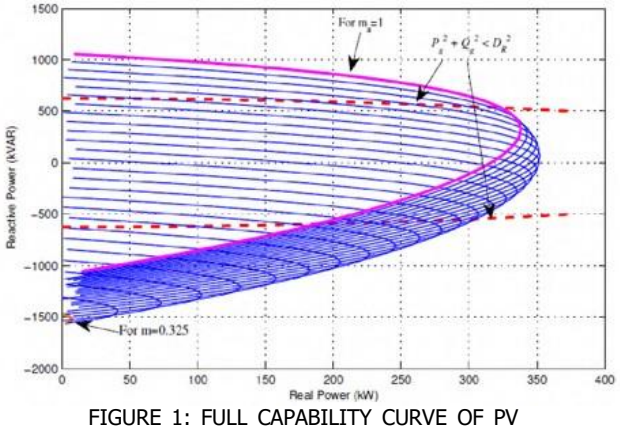


FIGURE 1: FULL CAPABILITY CURVE OF PV SYSTEM (375 KW)

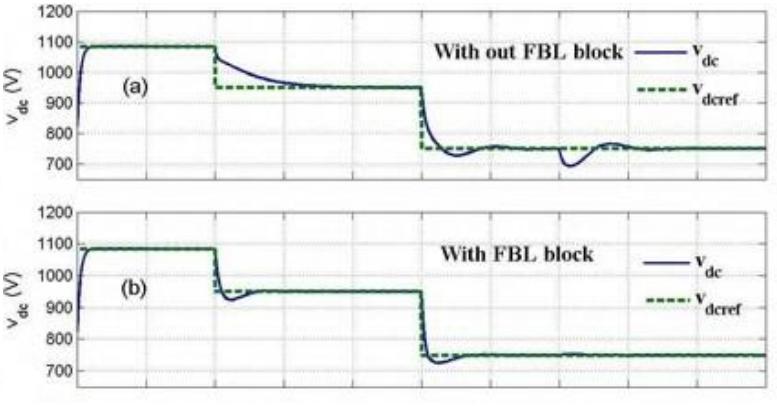


FIGURE 2. RESPONSE OF CONTROLLER WITH AND WITHOUT FBL

The performance of the DC-link voltage controller at different operating conditions is verified using simulation results. Since FBL block is used in the DC-link voltage controller, the nonlinearity present in the PV source is eliminated and the controller just acts like a normal linear controller at all operating conditions. The effectiveness of the proposed control system has been tested by simulating the system in PSCAD/EMTDC environment. By using the modified MPPT and proposed feed-back linearization (FBL) voltage control scheme, the performance of the system is much improved in terms of dynamic and steady state responses. Figure 2 shows the controller response with and without FBL.

Partial Shedding Conditions

A modified particle swarm optimization (PSO) algorithm, which is very effective, accurate and simple to implement, is developed to track the Maximum Power Point (MPP) of the PV system. Most of the PSO based MPPT discussed in the previous works are applied for two-stage PV systems or single-stage systems with DC-DC converters, where the duty ratios are considered to be the PSO particles. Here, for the single-stage utility scale grid-connected PV system, the PV voltages are

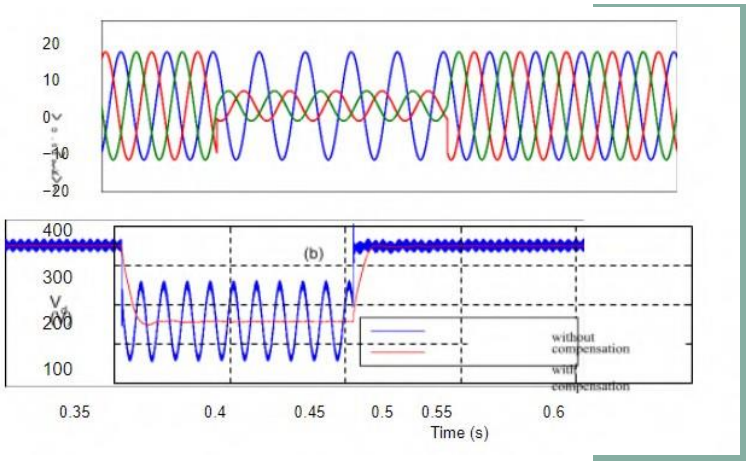


FIGURE 3.PV SYSTEM RESPONSE TO VOLTAGE DIP IN GRID

selected as PSO agents and the voltage reference to the DC-link controller is decided by computational results of the PSO MPPT controller to track the MPP in all partial shaded conditions, where the conventional hill climbing, and incremental conductance methods fail. Various simulation results demonstrate that the proposed method reduces the tracking time, and the oscillations at MPP are almost zero. The proposed method is suitable in even those cases, where other methods based on classical algorithms used for partial shaded conditions do not work properly. From the test results, it is found that the proposed modified PSO method is more accurate and efficient compared to the existing methods. Moreover, the proposed method is simple and fast. The method has been developed for high-power utility scale systems under several irradiance patterns including complex PSCs. Due to its simplicity, it can be easily implemented in a low-cost controller and computational speed would be fast. Figure 3 shows the system performance to the voltage dip at 0.04 second.

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Prof S. N. Singh obtained his M. Tech. and Ph. D. in Electrical Engineering from Indian Institute of Technology Kanpur, in 1989 and 1995. Presently, he is Professor (HAG), Department of Electrical Engineering, Indian Institute of Technology Kanpur, India. He was Vice-Chancellor of Madan Mohan Malviya University of Technology Gorakhpur from April 2017 to July 2020. Dr. Singh received several awards including Young Engineer Award 2000 of Indian National Academy ofEngineering (INAE), Khosla Research Award of IIT Roorkee, and Young Engineer Award of CBIP New Delhi (India), 1996. Prof Singh received the Humboldt Fellowship of Germany (2005, 2007) and Otto-monsted Fellowship of Denmark (2009-10).

Prof Singh became the first Asian to receive the 2013 IEEE Educational Activity Board Meritorious Achievement Award in Continuing Education. He is also recipient of INAE Outstanding Teacher Award 2016 and IEEE R10 region (Asia-Pacific) Outstanding Volunteer Award 2016. Dr Singh is appointed as IEEE Distinguished Lecturer of Power & Energy Society from 2019 and Industry Application Society for 2019- 2021. He is also a recipient of NPSC 2020 Academic Excellence Award.

His research interests include power system restructuring, FACTS, power system optimization & control, security analysis, wind power, etc. Prof Singh has published more than 500 papers in international/national journals/conferences and supervised 31 PhD (12 PhD under progress). He has also written 23 book chapters, 6 edited books and 2 textbooks, one on Electric Power Generation, Transmission and Distribution and second is Basic Electrical Engineering, published by PHI, India. Prof Singh has completed three dozen technical projects in India and abroad. His two NPTEL (YouTube) video lectures on HVDC Transmission and Power System Operation & Control are extremely popular.

Prof Singh was Chairman, IEEE UP Section for 2013 & 2014, IEEE R10 (Asia-Pacific) Conference & Technical Seminar Coordinator 2015-18 and R10 Vice-Chair, Technical Activities (2019-2020). Presently Prof Singh is Immediate Past Chairman of IEEE, India Council. Dr Singh is Fellow of IEEE (USA), FIET (UK), FNAE, FIE(I), FIETE, AvH.

Radiogenomics and Deep Learning in Management of Brain Cancer

Sushmita Mitra, Professor, Machine Intelligence Unit, Indian Statistical Institute, Kolkata, FIEEE

Radiomics (or quantitative imaging) constitutes the high-throughput automated (or semi-automated) extraction of large amounts of quantifiable information (or image features) from radiographic images for improved management of the disease (or tumor) [1]. It requires the mining of large image datasets, to reflect and quantify the inherent heterogeneities, for improved decision-making. Radiomic features provide richer information about intensity, shape, size or volume, and texture phenotype, and are complementary to that provided by clinical reports, laboratory test results, and genomic or proteomic assays [2]. Feature selection aims at dimensionality reduction, in order to lower the computational cost of classification while not hampering the discriminatory power of the system. Computer-based medical image analysis is thus becoming an important field; mainly because of the high rate of production of images, as well as the increasing reliance on these by the biomedical community. Today radiographic imaging modalities, like computed tomography (CT), positron emission tomography (PET) and magnetic resonance imaging (MRI), are playing a major role in the diagnosis and prognosis of cancer.

Cancer is a disease of genetic instability, often associated with genes directly involved with cell growth and proliferation, differentiation, survival and apoptosis, or indirectly involved through genes participating in cell signal transduction pathways. Current development in genomics and proteomics has enabled molecular profiling of biological specimens by simultaneously revealing the expression levels of thousands of genes and proteins. Gene expression patterns of cancer tissues can reveal its etiology, prognosis and response to therapy, and facilitate individualized selection of therapies. Here feature selection helps in filtering out and focusing on those sets of differentially expressed genes, from the diseased tissue, that can be best correlated with patient prognosis and clinical outcome [3].

It has become increasingly clear that patient-specific gene mutations and certain tumor characteristics result in each patient having her own disease, which again warrants specific

treatments. The concept of using advanced diagnostic capabilities to tailor treatment, specific to an individual's genetic build, is called personalized (or precision) medicine [1]. This aims to individualize treatment towards the specific characteristics of a patient and her tumor genotype. Associating molecular genotypes with imaging phenotypes (biomarkers) is termed radiogenomics, and it throws up an exciting emerging field of research. It holds promise for personalized optimal treatment [4], while eliminating the hazards of over-diagnosis. Characteristic features from the segmented region of interest in an image can be correlated with the gene expression profile of the tumor to determine its non-invasive imaging surrogates (or substitutes) [5].

With the worldwide availability of "big" datasets in healthcare (encompassing images and patterns in digital form), high computing power, efficient low-cost algorithms, and easy access to cloud computing solutions, the growth of interest in artificial intelligence (AI) applications is increasing. The automated mining of radiomic information from images (typically not discernible visually) is enhancing the diagnostic and prognostic benefits of patients, as derivable from images. Learning can be supervised (with class labels) or unsupervised (clustering/ segmentation), through maximizing (minimizing) patient similarity within (between) clusters. Attributes like age, gender, disease history, diagnostic imaging, gene expression, electrophysiological tests, physical examination results, clinical symptoms, medication, can serve as input to the learning algorithm. The output (knowledge) can consist of disease indicators, patient survival time, and quantitative disease measures (like tumor size or grade).

Objects of interest in medical images, in the context of cancer, would correspond to lesions and tumors. These again are of various shapes and inhomogeneity, even including spiculation at the surface. Such volumes of interest often become too complex to be accurately represented by any simple equation and/or model. It requires a complex model with a large number of parameters that cannot be accomplished manually and becomes data-dependent. This is where the role of machine learning becomes important in medical imaging, through mining tasks like feature extraction (like, contrast, area, circularity), feature selection, clustering or segmentation, and classification (like cancerous or benign, grading, etc.). The role of machine learning is to determine optimal discrimination between the multiple output classes, through training, in the multi-dimensional feature space; to subsequently classify an unknown test image. Some of the popular learning algorithms include linear regression, logistic regression, naive Bayes, decision trees, nearest neighbors (NN), random forests, discriminant analysis, support vector machines (SVMs), and artificial neural networks (ANNs). However, some of the sensitive issues of concern include basic pattern recognition concepts like feature selection and dimensionality reduction, through generalization over independent test sets or cross-validation, while preserving repeatability and reproducibility across observations collected in multi-institutional frameworks.

Deep learning is a kind of representation learning, where a machine learns from raw data to automatically discover the representations needed for detection or classification [6]. It involves multiple levels (depth) of representation, obtained by composing simple non-linear modules, that each transforms the representation at one level into another at a higher, slightly more abstract level. Deep learning, in the context of medical images, directly uses pixel values of the images (instead of extracted or selected features) at the input, without involving object segmentation; thereby, overcoming the manual errors caused by inaccurate segmentation and/or subsequent feature extraction. However, some of the inherent limitations of deep learning include high computational cost and the requirement of a large number of training images. Convolutional neural networks (CNNs) constitute one of the popular models of deep learning

The breakthrough in CNNs came with the ImageNet competition in 2012 [7], where the error rate was almost halved for object recognition. CNNs were revolutionally revived through the efficient use of Graphics Processing Units (GPUs), Rectified Linear Units (ReLUs), dropout regularization and data augmentation. Given that images are naturally complex and high-volume, the use of deep learning has been reported mostly in imaging analysis. Some of the commonly used deep learning models in medical applications include CNNs, recurrent neural networks (RNNs), Residual convolutional neural networks (ResNets), and deep belief networks. Recently significantresearch was undertaken in the application of deep learning for quantitative medical imaging [8] and genomics [9].

Gliomas constitute 70% of malignant primary brain tumors in adults [10] and are usually classified as High-Grade Gliomas (HGG) and Low-Grade Gliomas (LGG) – with the latter being less aggressive and infiltrative than the former. Magnetic Resonance Imaging (MRI) has been extensively employed in diagnosing brain and nervous system abnormalities, over the last few decades, due to its improved soft tissue contrast. The MR sequences include T1-weighted, T2- weighted, T1-weighted with gadolinium-based contrast enhanced (T1C), and T2-weighed with fluid-attenuated inversion recovery (T2-FLAIR). The rationale behind using these four sequences lies in the fact that different tumor regions may be visible in different sequences, thereby allowing a more accurate composite demarcation of the tumor involving improved tissue discrimination. For example, T1C enhances the tumor region that is well-perfused with high tumor cell density where there is a breakdown of the blood-brain barrier. This can, thereby, provide delineation of gross tumor margins and allow earlier detection of additional small metastatic lesions. Necrosis and solid tumors can also be visually distinguished. Typically, T1C-weighted images are used for monitoring tumor response to therapy. The T2- weighted sequences are sensitive to water tissue content and can be used to estimate cellular density and presence of edema. T2-FLAIR- and T2-weighted images, in conjunction, help provide a better distinction between edema and solid tumor. Accurate delineation of tumor region in MRI sequences is of great importance since it allows:

i) volumetric measurement of the tumor, *ii)* monitoring of tumor growth in a patient between multiple MRI scans, and *iii)* treatment planning with follow-up evaluation.

Besides detection, localization, and classification, the most widely studied aspect in medical imaging applications has been segmentation. Tumor segmentation from brain MRI sequences is usually done manually by the radiologist. Being a highly tedious, time-consuming and error- prone task, mainly due to factors such as human fatigue, overabundance of MRI slices per patient, inter-observer variability, and increasing number of patients, such manual operations often lead to inaccurate delineation; thereby potentially leading to unstable results in the radiomic analysis.

The need for an automated or semi-automated Computer Aided Diagnosis thus becomes apparent. It can also serve to improve the accuracy in automatic detection in order to assist doctors in diagnosing faster and on time. The segmentationof the glioma and its sub-regions, in multi-modal MRI, is depicted in Figure 1.

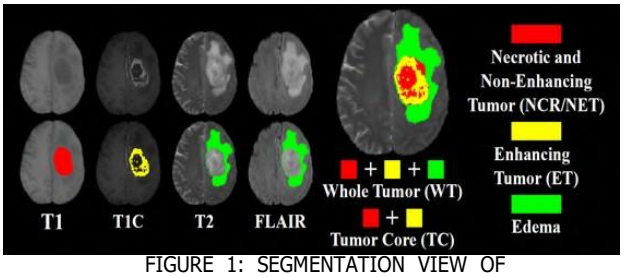

FIGURE 1: SEGMENTATION VIEW OF GLIOMA SUB-REGIONS IN MULTI-MODAL MRI [11]

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Dr. Mitra is the author of several books . She has guest edited special issues of several journals, is an Associate Editor of ``IEEE/ACM Trans. on Computational Biology and Bioinformatics", ``Information Sciences", ``Neurocomputing", ``Fundamenta Informatica", SN Computer Sciences and is a Founding Associate Editor of ``Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery (WIRE DMKD)". She has more than 150 research publications in referred international journals. According to the Stanford List, Dr. Mitra is ranked among the top 2% scientists worldwide in the domain of Artificial Intelligence and Image Processing.

Dr. Mitra is a Fellow of the IEEE, Indian National Science Academy (INSA), International Association for Pattern Recognition (IAPR), and Fellow of the Indian National Academy of Engineering (INAE) and The National Academy of Sciences, India (NASI). She is an IEEE CIS Distinguished Lecturer, Member of Inter-Academy Panel for Women in STEMM, and the current Chair, IEEE Kolkata Section.

5 . SECTION/ SUBSECTION/ COUNCIL ACTIVITIES

IEEE Bangladesh Section

IEEE Bangladesh Section Awards Night 2020

Md. Zunaid Baten, Awards Coordinator for IEEE Bangladesh Section

On 31st December, 2020 IEEE Bangladesh Section hosted a virtual Awards Night. Prof. Dr. Celia Shahnaz, IEEE Bangladesh Section Chair presided over the program. Prof. Dr. Zunaid Baten, Awards Coordinator, IEEE Bangladesh Section moderated the Awards Session. More than 200 members joined the program.

IEEE Bangladesh Section (BDS) is glad to announce again the winners of IEEE BDS Awards 2020 under the following categories:

1. Outstanding Student Branch: IEEE IUB Student Branch
2. Outstanding WIE Student Branch AG: IEEE BUP Student Branch WIE AG
3. Outstanding Student Volunteer: Hossain Md Sabir
4. Outstanding WIE Student Volunteer: Suhee Sanjana Mehjabin
5. Outstanding Student Branch Counselor: Md. Kafiul Islam

Honorable Mentions:

1. Outstanding WIE Student Branch AG: IEEE BUET Student Branch WIE AG
2. Outstanding WIE Student Volunteer: Syed Sadia Hossain

It is to be noted that this is the first time that IEEE BDS confer WIE Outstanding Student Branch Affinity Group and WIE Outstanding Student Volunteer awards. IEEE BDS congratulates all the award winners for their outstanding contributions to IEEE Bangladesh Section 2020.

IEEE R10 MINIPOCO: IEEE Bangladesh Section Conference Education Program – Virtual Workshops

Celia Shahnaz, Chair for IEEE Bangladesh Section
S M Saiduzzaman, Newsletter Editor for IEEE Bangladesh Section

Under an approved fund for R10 Mini POCO, IEEE Bangladesh Section organized 2 workshops by IEEE MCE for training on conference organization. The workshops were held on 2nd and 9th December, 2020. The workshops were funded by IEEE Region 10. The resource person for both events was Fred Schindler, FIEEE from IEEE Conference Committee.

The first workshop on 2nd December, 2020 was conducted for the Section Leadership for their further perusal so that they can evaluate the conference applications for technical sponsorship or co-sponsorship. The pros and cons of a conference emphasizing the evaluation and maintenance of technical quality throughout the conference and its addition to the Xplore repository were elaborately discussed by Fred Schindler. All the 15 ExCom Members of IEEE Bangladesh Section including Past Chair Prof. Shaikh Fattah attended the workshop. John Tracy moderated the session with a short introduction speech from Dr. Celia Shahnaz, Chair for IEEE Bangladesh Section.

The second workshop was held on 9th December, 2020 for the conference organizers and Section members. This workshop emphasized on ensuring and maintaining the technical quality in various steps of a conference. Furthermore, some confusions and questions were cleared during the interactive QA Session by the resource person Fred Schindler. Dr. SN Singh, Vice Chair, IEEE R10 Technical Activities; Dr. Michael Ong, Conference and Technical Seminar Coordinator, IEEE Region 10 and Dr. Celia Shahnaz, Chair, IEEE Bangladesh Section were other panelists of the session with John Tracy as the moderator. Around 50 people attended the workshop including various conference organizers of Bangladesh.

Dr. Celia concluded the session by giving a vote of thanks to all the attendees and the panelists. She encouraged the workshop attendees to implement the key points from the workshop in their conferences and welcomed everybody to contact her in case of any confusion.

Bengalis Research Forum 2021

Celia Shahnaz, Chair for IEEE Bangladesh Section
S M Saiduzzaman, Newsletter Editor for IEEE Bangladesh Section

21st February is observed worldwide as the International Mother Language Day commemorating the martyrs of the mother language movement on 21st February, 1952 in the then East Pakistan, present Bangladesh. To pay respect to the sacrifices of the language martyrs and as an initiative of the Reaching Locals Project, IEEE Bangladesh Section organized the 1st Bengalis Research Forum on 21st February, 2021. The theme was to gather the Bengali (Bangla) speaking research scholars

and enthusiasts focusing on the mass enactment of local language Bangla based educational and research activities in the field of Electrical, Electronic, and Computer Engineering. More than 100 Bengali-speaking distinguished scholars and enthusiasts from the USA, Japan, India, Australia, UK, Germany, and Bangladesh attended the event. They candidly discussed the challenges and proposed

solutions and opportunities to encourage the Bengali instruction medium based research activities among Bengali-speaking individuals worldwide. The forum unanimously emphasized that there is no alternative to Bangla medium based scientific and technological practice through different endeavors i.e. research article and book publication, technical communication, translating key technical books into local languages, and so on in order to increase and uphold the thousand years' glory of Bengali Language. The attendees also thanked the organizers for the forum initiative and expressed the importance of frequent organization of such activities from a technical institute like IEEE to reach out to the locals. The program was moderated and chairedby Prof. Dr. Celia Shahnaz, Chair for IEEE Bangladesh Section. The full program was conducted in Bangla.

R10 EAC Funded "Bridge the Healthcare Gap: Introducing Telemedicine and IoT to Secondary Schools Students"

Raihan ur Rashid, Secretary for IEEE Bangladesh Section

IEEE Bangladesh Section organized a virtual workshop titled "Bridge the Healthcare Gap: Introducing Telemedicine and IoT to Secondary Schools Students" on 20th December, 2020 aiming to promote engineering education to pre-university students. 100 students of class 11 and 12 from Engineering University Girls School and College, Dhaka, Bangladesh have actively participated in the program.

Prof Dr. Celia Shanaz, Chair for IEEE Bangladesh Section was the Chief Guest of the program. In her speech, the honorable chief guest focused on the importance of IEEE and its educational activities as well as the necessity and impact of engineering education in national development. Jannatul Adan, Humanitarian Activities Coordinator for IEEE Women in Engineering Affinity Group (WIE) Bangladesh Section was the anchor for the program.

Prof. Dr. A. B. M. Aowlad Hossain, Educational Activity Coordinator of IEEE Bangladesh Section was the resource person to conduct the workshop. Firstly, Prof. Hossain gave a presentation on the overview of IEEE and its educational activities as well as the necessity of such program. The available online resources of IEEE for pre-university education like TryEngineering, TryComputing,TryNano have been introduced to the participants even with native Bengali language. Then, he started the main topic on telemedicine and its benefits to improve healthcare.

Online demonstration on the telemedicine applications using IoT based remote health monitoring systems, relevantlesson plans from IEEE online resources, embedded systems like Arduino, Raspberry Pi and associated coding concept were presented. The major focus was on how the telemedicine and telehealthtechnology can minimize the healthcare gap of rural areas or underprivileged peoples. Besides, the existing telemedicine services of Bangladesh were introduced to show the current scenarios and future demands of technology and skill personnel. It was an interesting session with proactive and enthusiastic interaction between the participants.

Most of the participants gave satisfactory feedbacks and suggested organizing more programs in the future. The workshop ended with interactive discussion and photo sessions.

IEEE Bahawalpur Section

First Annual General Meetup of Bahawalpur Subsection

Dr. Khan Bahadar Khattak, General Secretary for Bahawalpur Subsection

IEEE Bahawalpur Subsection was established on 13th February, 2016 and is one of the three Subsections of Pakistan. It is under the Lahore Section and is one of the most active Subsections of IEEE Region 10. During the last 5 years, the IEEE Bahawalpur Subsection conducted multiple events and seminars. The major events include Student/YP/WIE congresses, Asia/Pacific ComSoc Summer School Program and the IEEE International Multi-topic conference. After conducting these successful events, we started our preparations for the First Annual General Meetup of Bahawalpur Subsection.

All the five Student Branches, namely, IEEE UCET – the Islamia University of Bahawalpur Student Branch, IEEE UCET– the Bahauddin Zakriya University of Multan Student Branch, IEEE Khawaja Farid University of Engineering and Information Technology Rahim Yar Khan Student Branch, IEEE National Fertilizer Corporation Institute of Engineering and Technology Multan Student Branch, and IEEE Muhammad Nawaz Sharif University of Agriculture Multan Student Branch, were taken on board for this meeting. A call was open for all the Student Branches to submit their yearly report in a form of recorded presentations as due to the COVID-19 SOPs the AGM was supposed to be a small gathering.

IEEE Bahawalpur Subsection organized its first annual general meeting on 24th December, 2020. Dr. Muhammad Ali Qureshi led this event as the Chairperson for IEEE Bahawalpur Subsection. Representatives of all the Student Branches and Student Chapters were called to present their performance for the previous year and targeted plans for the tenure of 2021. Moreover, the IEEE Bahawalpur Subsection launched the Member Loyalty Program to recognize its loyal members for

their association based on the years of membership. This program aims to recognize the members of IEEE Bahawalpur Subsection for three and five years of service as an IEEE member associated with the IEEE Bahawalpur Subsection. The duration calculations were based on the cumulative years of service regardless of grade. Moreover, sponsorships of IEEE memberships for the members of IEEE Bahawalpur Subsection were announced. The motivation of the loyalty program is to develop the IEEE memberships for coming years. Also, it will engage more technical community within the IEEE network.

Prof. Dr. Muhammad Amjad and Dr. Muhammad Ali Qureshi presented the shields of recognitions to the nominated members. At the end of the event, official logo of IEEE Bahawalpur Subsection was inaugurated and award of appreciation was presented to the logo designer Mr. Ahad Rehman. Loyalty award winners are mentioned below.

Winners of 5 Years Loyalty award 2020: Dr. Muhammad Ali Qureshi, Engr. Aoun Muhammad, Engr. Usman Zafar, Engr. Shahid Zulfiqar, Engr. Qaiser Ijaz and Engr. Anees ul Husnain

Winners of 3 Years Loyalty award 2020: Prof. Dr. Muhammad Amjad, Dr. Khan Bahadar Khattak, Dr. Asjad Amin, Engr. Muhammad Nawaz Abbasi, Dr. Rao Kashif, Engr. Abuzar Qureshi, Engr. Iram Haider, Engr. Maria Ali, Engr. Mahnoor Baloch, Engr. Ayesha Sana, Engr. Anum Farooq, Engr. Mudassar Irshad, Engr. Kashif Abbass, Engr. Mahnoor Mehmood, Zainab Jabeen, Mamoona Saghir, Syeda Iqra Fatima, and Owais Liaqat.

IEEE Gujarat Section

Technical Talk on How do Self-Driving Vehicles work"

Chirag Paunwala, Secretary for IEEE Gujarat Section

IEEE Signal Processing Society Chapter, Gujarat Section has initiated a Technical Talk Series intending to bring eminent experts in the field of Signal Processing, Machine/Deep learning, and Wireless Communications to provide a platform for budding engineers and professionals to benefit from the experts. The talk was on 6th February, 2021 with the title "How do Self-Driving

Vehicles work" by Mr. Saiman Shetty, Robotics & AI Engineer, Tesla, Lyft, Nuro, San Fansisco, USA. He gave highlights on advanced control system and interpretation of sensory information to identify appropriate navigation paths as well as obstacles and relevant signage. Approximately 400 registered participants attended the event. The upcoming expert talks are on (1) "Transfer learning for Image and Video Recognition" by Dr. Dong Xu, IEEE SPS Distinguished Lecturer, and (2) "Sensing and Signal Processing for Autonomous Navigation" by Dr. K V S Hari, Professor, IISc, Bangalore.

IEEE Hyderabad Section

IEEE Hyderabad Section Annual General Body Meeting (AGM 2021)

Mohammed Arifuddin Sohel, Secretary for IEEE Hyderabad Section

The IEEE Hyderabad Section, India organized its Annual General Body Meeting (AGM - 2021) on 24th January, 2021, from 10.00AM to 2.30PM at Hotel Taj Vivanta, Begumpet in hybrid mode. The AGM started with a welcome address by Amit Kumar, Chair who appreciated the volunteers' efforts in organizing over 1400 virtual and hybrid events. Bala Peddigari, the Secretary, briefed that the IEEE membership of Hyderabad Section was 4066 at the end of 2020 and highlighted two special efforts of the Section in organizing the IEEE Hydcon 2020 and in mobilizing the IEEE COVID MOVE initiative. Dr. MGPL Narayana, past chair, IEEE Hyderabad Section paid Tribute to Shri. F.C. Kohli. A computer society flagship event, the F.C. Kohli memorial lecture was held on 19th March of every year to mark the birth anniversary of Shri. F.C. Kohli. The chief guest of the function Dr. Deepak Mathur, Director, Region 10 joined through WebEx mode and appreciated the efforts of Section volunteers for their dedicated efforts to further the cause of IEEE. The awards ceremony was conducted to facilitate the active volunteers of the Section. IEEE Hyderabad Section was privileged to honor BL Deekshatalu with India Council Life Time Achievement Award. N Venkatesh, Nominations Committee Chair introduced the full slate of IEEE Hyderabad Section for the year 2021 and initiated the Change of Guard. Srinivas Jasti takes over as the Chairman, R. Balasubmanian as the Vice Chair, Mohammed Arifuddin Sohel as the Secretary and Bala Prasad Peddigari as the Treasurer. The outgoing chairs and volunteers were awarded with digital certificates.

Sreenivas Jasti, incumbent chair, shared his vision for the year 2021 and encouraged the volunteers to refer to IEEE Future Directions Initiatives for new technology areas and engage with IEEE Foundation to drive initiatives aligned to the theme ILLUMINATE EDUCATE ENGAGE ENERGISE. The vote of thanks was presented by Bala Peddigari. Posters of chapter activities were displayed before and after the main sessions of AGM. The participants were treated to a tasty ethnic cuisine during lunch and safety norms laid out by the local government were strictly followed throughout the event. The event was attended by 171 IEEE members.

IEEE India Council

Erase the boundaries

Utkarsh Singh, Editor-Newsletter for IEEE India Council

All India Students, Young Professionals, Women in Engineering, Life Members Congress (AISYWLC) was organized by IEEE India Council & IEEE Delhi Section at Chitkara University from18th to 27th December, 2020 virtually. The event, themed "Erase The Boundaries", was attended by more than 700 delegates. Guest speakers were Dr. Aloknath De (CTO, Samsung India), Dr. Gulshan Rai, (First Chief of Cyber Security - PMO, India), etc.

India Council also conducted INDICON 2020 from 11th to 13th December, 2020. Prof. Toshio Fukuda, Dr. Lance Fung, Dr. Suresh Nair, Mr. Deepak Mathur, and around 500 researchers contributed to this event.

India Council inaugurated Prahlad P Chhabria Awards in memory of Late Shri Pralhad P Chhabria, Founder-Chairman, Finolex Group of Companies. Sponsored by HOPE Foundation and Research Centre with total prizes worth INR350,000, this award is conferred on young women for achievements in an undergraduate college or professional arena. The winner announcements were held in a virtual mode on 12th March, 2021.

IEEE India Council also partnered with IEEE Nagpur Subsection in hosting the WIE International Leadership Summit (ILS) with 500 participants on 6th November, 2020. The summit was inaugurated at the hands of Akinori Nishihara, Director of Region 10 & Deepak Mathur, Director- Elect of Region 10. Whereas Dr. Suresh Nair, IEEE India Council Chair-Elect & Dr. Lance Fung, 2021-2022 R10 Director-Elect graced the valedictory function.

IEEE Indonesia Section

IEEE Indonesia Section and Directorate General of Higher Education Discuss the Possibility of Program Synchronization

Gamantyo Hendrantoro, Vice Chair for IEEE Indonesia Section

The IEEE Indonesia Section held an online meeting with the Directorate General of Higher Education, Ministry of Education and Culture of the Republic of Indonesia on Tuesday, 2nd February, 2021. The meeting discussed the potential for synchronizing IEEE Indonesia Section programs with those of the Directorate General of Higher Education. The meeting was attended by

the IEEE Indonesia Section 2021 Chair, Dr. Ing. Wahyudi Hasbi, and Vice Chair, Prof. Gamantyo Hendrantoro, as well as the Director General of Higher Education, Prof. Nizam and the Secretary of the Directorate General, Dr. Paristiyanti Nurwardani. Members of the IEEE Indonesia Section Activity Committee and the Technical Society Chapters of IEEE Indonesia Section were also present.

In his presentation, the IEEE Indonesia Section 2021 Chair conveyed several programs that could improve the quality of learning, the lecturers and the students. One program aims to improve the quality of conferences held by universities, while another involves making the IEEE journals, conferences and the IEEEXplore as an outlet for high-quality research from Indonesian universities. In addition to that, the Distinguished Lecturer Program offered by many IEEE Societies can be used to trigger research collaborations with Indonesian researchers.

"There are also other programs such as the IEEE Indonesia Initiative on Data Science and Artificial Intelligence and international competitions for IEEE Student Members, such as IEEEXtreme targeting at improving students' coding skills, team work etc. The synergy between the IEEE Indonesia Section and the Higher Education Directorate will allow development of technology standards in Indonesia, assessment of the effectiveness and efficiency of the implementation of online lectures by experts from the IEEE Education Technology Chapter, establishment of an East Indonesia IEEE Conference Flagship, and execution of an IEEE Indonesian Student Conference together with the National Student Scientific Week held yearly by the Directorate General," Wahyudi said.

On the same occasion, the IEEE Indonesia Section 2021 Vice Chair described the possibilities of collaboration in facilitating the implementation of the Ministry's "Free to Learn - Free Campus", locally known as the Merdeka Belajar-Kampus Merdeka or MBKM program. The possibilities include students' participation in the humanitarian projects organized by the Special Interest Group on Humanitarian Technology (SIGHT) and Humanitarian Technology, as well as early experience for students with international professional organizations through involvement in IEEE Student Branches. In addition, IEEE Indonesia Section can serve as a bridge for research collaboration between universities and research institutions and for students' free-to-learn activities in the industry, research organizations, etc.. "The activities can take the form of humanitarian projects, internships, research, start-ups and others," said Gamantyo.

The potential for synchronization was welcomed by the Director General of Higher Education, Prof. Nizam. According to him, the IEEE Indonesia Section can be a means of implementing the MBKM program. He hopes that engineering students in Indonesia can join as members of the IEEE Indonesia Section. IEEE is also expected to help improve the quality of Indonesian journals so that they achieve an international reputation. This meeting will be followed up with an agreement and working plan.

IEEE Kerala Section

Accolades Amidst a Pandemic

Gilesh M P, Secretary for IEEE Kerala Section

On 30th January, 2021, IEEE Kerala Section held its Annual Awards Ceremony for the year 2020. The edition of the most prestigious award instituted by the Section in memory of its founder chair and the doyen of electronic Industry, Padma Bhushan Shri. K. P. P. Nambiar was bestowed uponDr. M. S. Valiathan for his distinguished contributions in the field of medical technology in India. Instituted in the year 2017, the K. P. P. Nambiar Award honors an individual or institution in the State for significant contributions to the IEEE vision of "Advancing Technology for Humanity" through research, development and application of technology that benefits humanity, devoid of social bias. The awardee Dr. M. S. Valiathan, a renowned Cardiac Surgeon and the Founder-Director of Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST), was honored for his exemplary role in the creation and propagation of biomedical technologies in the country.

The event was conducted in a composite structure with small group gathering physically at Trivandrum, Kochi, and Kozhikode adhering to the COVID-19 protocols, connecting over Zoom, and live streaming on the IEEE Kerala Section YouTube Channel. For the first time ever a Section event was streamed over IEEE TV, the official channel of IEEE HQ. The award ceremony recognized eminent personalities and organizations in the field of Science & Technology with honorable positions.

·Outstanding Women Engineer Award - Ms. Rameetha K, Scientist 'G', NPOL, Kochi;
·Outstanding Industry Contributions Award - Mr. C. Balagopal, Founder-CEO of Terumo Penpol;
·Friend of IEEE Awards - Mr. Prasad B. Nair (CEO, Maker Village); Dr KN Madhusoodanan (CUSAT); and Dr. P. S. Sathi Devi (NIT Calicut);

·Outstanding Teacher Award - Dr. Bijuna Kunju (TKMCE) and Dr. Dhanaraj K. J. (NIT Calicut);
·Outstanding Researcher Award - Dr. B. S. Manoj (IIST); and
·Outstanding Start-up Award - GenRobotics Innovations Pvt. Ltd.

IEEE Kerala Section presented several professional members with Professional Awards, including Mr.Shankar Jayaraj (Outstanding Volunteer); Ms. Jiby Krishna K. G. (Outstanding WiE Volunteer); Mr. Rejin Narayanan (Outstanding Humanitarian Volunteer); Varghese Cherian (Outstanding Industry Contributions); Ms. Juliana Biju (Outstanding YP Volunteer); Mr. Akash Nambiar (Outstanding YP Volunteer); Mr. Midhun C. (Notable Technical Contributions) and Mr. Albin Paul (Outstanding Humanitarian Volunteer - Special Mention).

Extraordinary performance by student volunteers was acknowledged by the Student Awards along with a special mention on institutions that provided support to IEEE student activities including Rajagiri School of Engineering and Technology (RSET) - Ernakulam; Sree Chitra Thirunal College of Engineering (SCTCE) - Trivandrum; and Jawaharlal College of Engineering and Technology, Lakkidi.

Being a global organization that works towards enhancing technology and making it accessible to every sector of society, IEEE observes its members and their contributions with utmost regard, making this award function a stimulus for a better tomorrow.

IEEE Kolkata Section

Recent Activities of Kolkata Section

Tridibesh Nag, Newsletter Chair for IEEE Kolkata Section

IEEE Women in Engineering Kolkata Section has started "Dare to Dream", a talk series on Indian Women who had ventured into STEM careers more than 50 years ago. The inaugural episode of the series was held on 6th February, 2021. The talk "Life and Work of Prof. Rajeswari Chatterjee:A Pioneer in Microwave Engineering" based on the research by Ms. Ishani Hazra, was delivered by Prof. Prasanta Kumar Basu. The late Prof. Rajeswari Chatterjee (1922-2010) was the first woman scientist to pioneer in the field of microwave engineering in India. The talk chronicled her scientific and engineering career journey overcoming multiple adversaries of the pre independence India and the outbreak of World War II. The talk also focused on her PhD and training in the US and her return to independent India to join IISc Bangalore as a faculty. Her inspirational story of path breaking research in microwave thereby producing numerous illustrious students who shaped India, motivated the audience. Total number of participants for the event is 120.

IEEE Milestone Lecture

IEEE Kolkata Section organized an IEEE Milestone Lecture on 4th March, 2021 at 7:30 PM (IST) through online virtual platform. The talk was delivered by Prof. Sivaji Chakravarty, FNAE, FNASc, AvHumboldt Fellow Vice-President, Indian National Academy of Engineering - 2021, Professor Jadavpur University, Kolkata, India. The talk was on the first two IEEE Milestones in India dedicated in 2012 by the then IEEE President-Elect Dr. Peter Staecker. In this talk details of the IEEE Program were presented starting from its inception. A major point of discussion was the criteria for obtaining approval of an IEEE Milestone and the process of approval. Historic significance of the first two milestones in India was beautifully outlined along with its technicalities. Information about the dedication programs held in 2012 was given along with the press clippings. Finally, the IEEE Milestone Map and the present status of the other IEEE Milestones in India was elaborated. Such an informative lecture was extremely enlightening for the participants. The program was live on the Kolkata Section YouTube channel and attracted a total of 46 participants.

Webinar on International Women's Day titled "FROM LEARNING TO DEEP LEARNING".

To intrigue interest in the domain of AI, machine learning and Deep Learning, IEEE Hyderabad Section Women in Engineering Affinity Group (WIE AG) and Education Society in association with IEEE Kolkata Section organized a webinar on the occasion of International Women's Day titled "From Learning to Deep Learning" by Dr. Sushmita Mitra, Fellow IEEE, INSA, IAPR, INAE, NASI, J.C. Bose Fellow, Chair, IEEE Kolkata Section, Member, Inter-Academy Panel for Women in STEMM, Professor, Machine Intelligence Unit, Indian StatisticalInstitute, Kolkata, on 8th March, 2021 from 2.00P.M to 3.30P.M IST through WebEx. The lecture was beneficial for the participants and attracted a totalof 85 participants.

IEEE Madras Section

Annual General Meet

Kumarappan N, Chair for IEEE Madras Section

The Annual General Meet of IEEE Madras Section 2020 happened on 19th December, 2020, from 1.30PM to 5.00PM. IEEE Madras SectionChairman Dr. N. Kumarappanwelcomed everyone and flipped through the activities and appreciated Student Branches, ExCom members, and professional members. Treasurer Dr. Joseph Gladwin briefed on the "Confirmation and Approval of Minutes of Annual General Meet happened on Aug 24, 2019". He glanced through the "Receive and Adopt the Annual Audit Financial statement for the year 2020", and then presented the appointment of Auditors for the year 2020-2021. As a ne Award" to 43 active Student Branches. This was facilitated by Chair Dr. N. Kumarappan, Vice-Chair Dr. R. Ramarathnam, and Treasurer Dr. Joseph Gladwin. Later, professional members of IEEE Madras Section who have published their work in IEEE Journals were appreciated with a "Publication Award". Finally, Treasurer Dr. Joseph Gladwin presented the vote of thanks and the gifts to the guests.

Webinar on "Hybrid Electrical Vehicle and its overview"

IEEE Madras Section organized webinar on "Hybrid Electrical Vehicle and its Overview" on 12th December, 2020. The Speaker was Dr. Naveenkumar Marati, Senior Hardware Engineering R & D Valeo Chennai. Dr. M Venkatesh Kumar, Chair Professional Activities introduced the guest to the gathering. The webinar focused on electrical vehicle technology and operations. Around 30 participants participated.

Webinar on "Recent Trends in Energy Storage"

SNS College of Technology, Coimbatore Photonics Society Student Branch Chapter and IEEE Madras Section – SAC organized a webinar on the "Recent Trends in Energy Storage" on 18th November, 2020. The resource person for the session was Dr. Ranjith Thangavel, Postdoctoral Researcher, Department of Energy Science, Sungkyunkwan University, Korea who shared his thoughts on the recent trends in energy storage. Around 58 participated in this event. This event was coordinated by Dr. K. Kalai Selvi, Dean - ECE, SNS College of Technology, Dr. N. Kumarappan, Chair, SAC & Chairman, IEEE Madras Section, and Mr. M. Saravanan, IEEE Student Branch Counsellor.

Webinar on "Intelligence Unit Commitment with Vehicle to Grid using Hybrid Optimization Technique"

The IEEE CIS Madras Chapter & IEEE Student Branch of Mount Zion College of Engineering and Technology organized a Webinar on "Intelligence unit commitment with the vehicle to grid using hybrid optimization technique" on 16th December, 2020. Mr. K. Ramachandran, IEEE Student Branch Coordinator introduced the guest speaker Dr. N. Kumarappan, Chairman, IEEE Madras Section and CIS Madras Chapter and Professor, Department of Electrical Engineering, Annamalai University, Tamil Nadu. He shared some valuable information about intelligence unit's commitment on the vehicle to grid using a hybrid optimization technique. Around 80 students attended the event.

Technical Talk on "Science behind Engineering Materials"

The IEEE Student Branch of NIT-Tiruchirappalli and IEEE Madras Section organized a technical talk titled "Science Behind Engineering Materials" on 29th January, 2021 by Dr. V. S. Srinivasan, Professor, Homi Bhabha National Institute and Head, LIMS, IGCAR, Kalpakkam. Dr. Kumarappan introduced the speaker whi proceeded to discuss about some fundamentals of crystals and microstructure, mechanical testing, fatigue and creep of materials, modeling and simulation, and the material used for thermal nuclear reactors.

IEEE Pune Section

IEEE Pune Section Events

Meghna Das, Newsletter Team Lead for IEEE Pune Section

Eu-Reka 2020 was organized by IEEE Pune Section for a duration of four months from September to December 2020. As the name 'Eu-Reka' signifies, the program Eureka 2020 aimed to raise the 'National Education-Reka', with the students inour colleges as 'Ambassadors of Education'. Teamsof college students visited urban and rural schools, talked to students at VIII / IX / X classes about latest advances in Science and Technology, and provided them a flavor of its benefits in their day-to-day lives. Dr Lance Fung who is Chair of R10 Educational Advisory Board on IEEE Educational Resources addressed the occasion. The objective of this event was to motivate the school children to take up higher studies in STEM, and also to boost their confidence, self-esteem and aspirational level, especially female students in rural areas to continue their studies beyond high school level.

IEEE Pune Section hosted its flagship conference PuneCon 2020 in partnership with Vishwakarma Institute of Technology, Pune from 16th to 18th December, 2020. The speakers were Dr. Takako Hoshimoto, IEEE Region 10 Secretary, Dr. Jayanta Mukhopadhyay, Professor, IIT Kharagpur, Dr. Sudip Misra, Professor, IIT Kharagpur, Dr. Subhasis Chaudhuri, Director and Mr Mahesh Kshirsagar,

CTO, TCS. The theme of PuneCon 2020 was "Information Processing" which resonates well with IEEE's mission of "Advancing Technology for Humanity" and was aimed at providing a technical platform for researchers across the globe to present their innovative ideas and share technical knowledge. IEEE PuneCon 2020 obtained some excellent responses from a few accomplished authors.

IEEE Student Branch of Hope Foundation's International Institute of Information Technology in association with WIE Affinity Group of IEEE Pune Section and IEEE India Council organized an Online Panel Discussion on "Empowering Women and Inspiring Change" on 30th January, 2021. The panelists were Dr. Celia Shahnaz, Dr. Ramalatha Marimuthu, Dr. Mini Ulanat, and Ms. Madhura DasGupta Sinha. This panel discussion aimed to empower women and provided a platform for the panelists to share their experiences and inspire fellow attendees. Attendees bagged some insights related to confidence building, importance of mentorship etc.

IEEE Pune Section in association with the IEEE SIGHT group organized a webinar on "AI in Healthcare" on 27th February, 2021 via WebEx. The guest speaker for this webinar, Mr. Ankoor Kulkarni was warmly welcomed by the host and IEEE members. Mr. Kulkarni is currently the global head for life sciences and public services - M&A business analytics - analytics and insights. He started the session by firstly giving a brief introduction about Artificial Intelligence. Following that, he shared in greater depth and breadth, and facilitated the participants with valuable information on how AI can be used in the healthcare sector. The speaker also clearedthe doubts of participants regarding AI, healthcare and many more. A vote of thanks was delivered at the end of the seminar.

IEEE Western Australia Section

IEEE WA Section Report March 2021

Muhammad Hayat, Newsletter Editor for IEEE WA Section

1. Event: IEEE Western Australia Training Workshop

This training workshop was particularly essential to provide new committee members with the information they need to have more focused effort for the forthcoming year to achieve the Section's mission and objectives. This virtual training was organised on Saturday morning 6th February, 2021 and was organised by IEEE WA Section with a total of 25 participants. This was the first time such much needed training was organised by IEEE WA Section. 2021 Chair of IEEE WA Section, Associate Professor Farhad Shahnia conducted the workshop. The event attracted a wide spectrum of audience from various industries, academic groups etc. The Chair provided training to the new committee members and general audience on the history of IEEE to attract more interests on the activities of IEEE. IEEE Strategic Plan for 2020-2025 was shared with the attendees so that the Section efforts align with the mission and vision of IEEE. To further intrigue the attendees, interesting details such

as the history of the IEEE logo was shared. The structure of the Section and role and responsibilities of committee members and what is expected of them were also outlined. Attendees were briefed on the following areas:

- Details of members' classification and membership numbers.
- Activities and structure of Technical Activities Board (TAB)
- Member and Geographic Activities (MGA) and where IEEE WA Section sits.
- Existing Technical Chapters, Affinity Groups, and Student Branches within IEEE WA Section
- Procedure around the formation of a new Chapter, Affinity Groups, and Student Branches.
- Reporting requirements and minimum activities requirement for the organizational units.
- The objective of the IEEE WA Section and how these objectives will be achieved through technical activities and social events.
- Membership development campaigns.
- Financial aspects of Chapter around rebates, expenses, Section finances, cash flow.
- IEEE's online reporting Vtools, e-notices, and voting.
- Planning, execution, and decision-making aspects of Section meetings.

This training workshop was very comprehensive and beneficial for the new committee members and general audiences and attracted positive feedback from the attendees.

2. Event: IEEE Western Australia Planning Workshop

This Section meeting targeted on discussing the Section plans for the forthcoming year and sought approval from committee members on such plans. This event was held on Saturday 20th February, 2021 at Murdoch University and was attended by 14 committee members. The Chair highlighted the Section activities for the year 2020 and briefed on the 2021 committee and the role of its members. The Chair sought approval of activities for the year 2021. These activities include Section meetings, Mid-year networking dinner, Section conference, Student Educational Workshop, IEEE Day Networking event, Family Day BBQ, and Annual General Meeting. The timeline for the Student Competition, Section Volunteer Award, and other committee awards were also discussed and finalized. Finally, the amendments to the IEEE Western Australia Section Bylaws were explained and approved to start the amendment process.

6. AFFINITY GROUP AND CHAPTER ACTIVITIES

IEEE WIE Bangladesh

IEEE PES Women in Power Summit in R10 at 6th IEEE WIECON-ECE

Celia Shahnaz, R10 Representative for IEEE PES Women in Power Bangladesh

Nafisa Tasnim, Vice Chair for IEEE WIE Bangladesh

On 27th December, 2020, IEEE PES Women in Power (WiP) Region 10, in collaboration with IEEE WIE AG Bangladesh, IEEE Bangladesh Section, IEEE Bhubaneswar Subsection, and IEEE WIE AG Bhubaneswar, organized a virtual IEEE PES Women in Power Summit in R10. WePower, a world bank initiative, was the partner of the summit. The summit was collocated at 6th IEEE WIECON-ECE (https://wiecon-ece.org/) and attracted many authors of IEEE WIECON-ECE 2020 to know about IEEE PES Women in Power.

The summit was inaugurated by Dr. Celia Shanaz, PES WiP R10 Representative, Chair, IEEE Bangladesh Section and General Chair, 6th IEEE WIECON-ECE 2020. She motivated the audience to come forward in presentingPES related projects that they are conducting as part of their thesis. The summit was glorified by the presence of Dr. Ruomei Li, Chair, IEEE PES WIP.She talked about realization of Life value by female Professionals. The summit witnessed around 38 participants and mentors from India, Bangladesh,Australia, China and Indonesia in the ZOOM Meeting. Notable contributors were Dr. Renu Sharma, and Dr. Sujata Chakroborty, and some experienced industry experts who mentored the project presenters so that their work can be transformed into products and can be deployed to PES industries. The presenters also learned the industry needs and skills. The session was moderated by Nafisa Tasnim, WiP representative from Bangladesh.

Celebration of International Women's Day 2021: "Women in Leadership: Achieving an Equal Future in a COVID-19 World"

Suhee Sanjana Mehjabin, Chair for IEEE BUET WIE AG
Anamika Bhakta, Chair for IEEE WIE Bangladesh

On 8th March, 2021, IEEE Bangladesh Section (BDS), WIE Affinity Group, IEEE BUET Student Branch WIE Affinity Group and IEEE BDS, jointly celebrated international women's day in an online platform with a total of 87 participants from twenty universities and industries.

Following the inauguration by Dr. Celia Shahnaz, Chair for IEEE BDS, Emi Yano, Chair for IEEE R10 WIE talked about the rising membership numbers in Region 10 during the pandemic. Ar. Selina Afroza, Chairman at Archetype Ltd. and President of WAEPA, Bangladesh, discussed how WEAPA talks about the issues women face in the workplace and society. Farah Tanjeem, Senior Expert, Planning Efficiency, Network Planning and Deployment, Technology, Grameenphone Ltd discussed her accomplishments as well as the story of her mother Khaleda Ahsan, Former Chief Engineer at the Department of Public Health Engineering (DPHE), breaking the social norms of that time by pursuing her Engineering degree. The moderator, Sanjana Mehjabin ended the event with a vote of thanks.

IEEE WIE Singapore

International Women's Day Video Contest Event by IEEE WiE SG

Noori Kim, Shilpa Manadhar, Aishwarya Bandla, Members of IEEE WIE Singapore

Event Date: 8th March 2021, Event Platform: Online

International Women's day is about making a positive difference for all! To celebrate International Women's Day 2021, IEEE Women in Engineering Singapore (WiE SG) organized a video contest event. The objective of this event was to voice out women's achievements and increase their visibility while calling for equitable opportunities, particularly in the fields of science and engineering.

Participants were asked to submit their videos, and the submitted videos were consolidated and published via IEEE WiE's social media such as Facebook, LinkedIn, and Instagram. We are thrilled to share that the event was a great success. We hope to bring more of such events in the future to promote women empowerment. The event can be recalled via WiE's social media links below:

- LinkedIn: https://www.linkedin.com/feed/update/urn:li:activity:6774526558238580736 https://fb.watch/48ec8Ly2Wl/
- Facebook: https://fb.watch/48fankokQ7/

IEEE WIE Tokyo/Shin-etsu

IEEE Tokyo/Shin-etsu Joint Section WIE Kick-off Event

Mamiko Inamori, Chair for IEEE WIE Tokyo Shin-Etsu Joint AG

IEEE Tokyo/Shin-Etsu Joint Section WIE Kick-off event was held online on 5th December, 2020. The total number of participants was 34 including IEEE members. The keynote speaker was Dr. Haruko Kawahigashi from Mitsubishi Electric Corporation. In her talk titled "Communication Network Technology and Carriers," she talked the audience through her work career and gave us tips on how to survive in the workplace. The audience was motivated and encouraged with her message of perseverance. "Do not think it's your fault if something does not go well, sometimesyou need to adjust your approach due to your environment!"

At the break-out room session, participants of various ages, from students to working professionals, exchanged their opinions about the image of engineers required now and the working style required in the future. In this event, high school and technical college students joined us and we were very happy to talk with young talents.

IEEE LMAG Kansai

LMAG Kansai Supported 2020 SB English Presentation Competition

Masaaki Kobayashi, Chair for IEEE LMAG Kansai

On 9th January, 2021, later than usual, the 17th SB English Presentation Competition 2020 was held online unlike previous years due to the Covid-19 pandemic. We supported the competition by participating as audiences and asking questions so as to enhance the effectiveness of the presentation practice. Our other support for the competition is to give the IEEE LMAG Kansai award to outstanding speakers who are tackling attractive future themes. The award was established in 2018 and willbe given to two IEEE Student Members. This time, unfortunately, all speakers were non-IEEE members, so there were no winners for the LMAG award. 14 participants attended the competition including 7 speakers, 6 audiences, and 1 moderator. 3 LMAG officers and 1 LMAG member are among the audiences.

IEEE LMAG Sendai

Sendai Section LMAG Special Lecture Meetings in 2020

Koji Mizuno, Chair for IEEE LMAG Sendai

IEEE LMAG Sendai held the following two Lecture Meetings (by Zoom) on big movement of information and communication technology to encourage researchers, especially young people.

Lecture Meeting on 5th September, 2020


Lecture Meeting on 17th October, 2020

1. Special Theme: Information and Communication Technology under the Corona Pandemic (Date: 5th September, 2020 / Attendance: 92)

The first lecture featuring "5G and its Future Systems to Accelerate Social Change" was presented by Dr. Fumiyuki Adachi, where ultra high reliable, low-latency communication and ultra-multiple device communication technology, developed for future systems called 6G was introduced. On the other hand, the second lecture, "Post Corona Health Sensing" was presented by Prof. Makoto Yoshizawa, where the possibility of contactless and remote physical condition monitoring system, which can measure and accumulate health information such as blood flow status, autonomic nervous system index, and relative blood pressure by sending a video of the face to the cloud without using a special sensor, was shown.

2. Special Theme: Toward Development of Information and Communication Industry (Date: 17th October, 2020 / Attendance: 42)

In the first lecture, "To Create a New Information and Communication Industry in Tohoku", Dr. Shoichi Noguchi emphasized the importance of the new organic cooperation of industry, academia, government, and financial world, and the establishment as well as development of core technologies such as ICT based on 5G, big data processing, AI industrialization, quantum computation, and social security, was discussed. The second lecture on "Self-Existence and

Communication Indispensable for a Human-Centered Information and Communication Society" was presented by Dr. Yasuji Sawada, where he demonstrated that Tohoku culture of self- existence, indispensable for true communication, is important to develop the information and communication industry.

IEEE LMAG Tokyo

All JC LMAGs Jointly Meet Online

Naohisa Ohta, Vice Chair for IEEE LMAG Tokyo

The first joint meeting of all Japan Council LMAGs (Kansai, Nagoya, Sendai and Tokyo) was held online via Zoom at 19:00 - 22:00 on 18th December, 2020. There were 20 people, officers and relevant members participated from each LMAG. This meeting was proposed by Prof. Takano, LMAG-Tokyo Chair and organized by Prof. Nakamura, LMAG-Kansai Chair.

First, Prof. Aoyama, Japan Council LM Coordinator reported some discussions in the JC Board Meeting. He referred to a number of Life Members in JC (1,018), LMAG activities, and a potential new LMAG foundation. He also encouraged LMAG-Tokyo to apply for the Achievement Award and suggested the next JC LM Coordinator. Then, all participants introduced themselves and shared some ideas and proposals for new activities of LMAGs including music and culture. The meetingwas also regarded as a get-together, and all attendants enjoyed talking about a variety of LMAG topics for 3 hours until the closing.

IEEE AP/MTT/EMC/CAS Jt. Chapter Islamabad

2020 IEEE International Seminar on Women in Circuits & Systems (WiCAS)

Nosherwan Shoaib, Chair for IEEE Islamabad Section Jt. Chapter

The IEEE AP/MTT/EMC/CAS Joint Chapter at the Research Institute for Microwave and MillimeterWave Studies (RIMMS), National University of Sciences and Technology (NUST), Islamabad organized a one-day seminar titled "2020 IEEE International Seminar on Women in Circuits & Systems (WiCAS)" on 23rd December, 2020. The main objective was to encourage Pakistani females to join the circuits and system engineering research area.

The event was conducted in hybrid mode and made LIVE via Microsoft Teams with a total of 50 participants. The event started with a welcome note from Dr. Nosherwan Shoaib. The event included both national and international female keynote speakers and panelists including Dr. Rabia Yazicigil from Boston University, USA, Dr. Wala Salem from LUMS, Pakistan, Dr. Seemab Latif, Dr. Sana Qadir and Dr. Mohaira Ahmad from School of Electrical Engineering and Computer Sciences (SEECS), NUST, Pakistan, Ms. Maira Islam from RIMMS, NUST and Ms. Aqeela Saghir fromLinks Foundation, Italy.

7. STUDENT BRANCH ACTIVITIES

IEEE AIUB Student Branch [Bangladesh Section]

Webinar session on "Functional Safety in Advanced Driver Assistance System"

Farhan Tasnim, Publication Volunteer for IEEE AIUB Student Branch

On 22nd December 2020, the IEEE AIUB Student Branch in collaboration with the Faculty of Engineering, AIUB, successfully organized a webinar session titled "Functional Safety in Advanced Driver Assistance Systems" through the virtual platform of Google Meet. The illuminating session was conducted by Marzana Khatun, Engineering Researcher, Kempten University of Applied Science, one of the esteemed professionals in the sector of road vehicle functional safety. In her session, she presented a brief idea on her research works in the vehicles' functional safety and encouraged the enthusiasts with an enthralling video clip on the Advanced Driver Assistance System. Along with the brief discussion on the concepts, she conveyed this technology's primary significance for the digitalized renovation of the roadway scenario in Bangladesh. The session ended with an interactive Question-Answer session and consisted of a total of 88 participants, including the esteemed faculty members of AIUB.

Webinar Session on "Mastering Professional Etiquette: Strategies and Tips for the Workplace"

Fahmida Akter Nova, Publication Volunteer for IEEE AIUB Student Branch

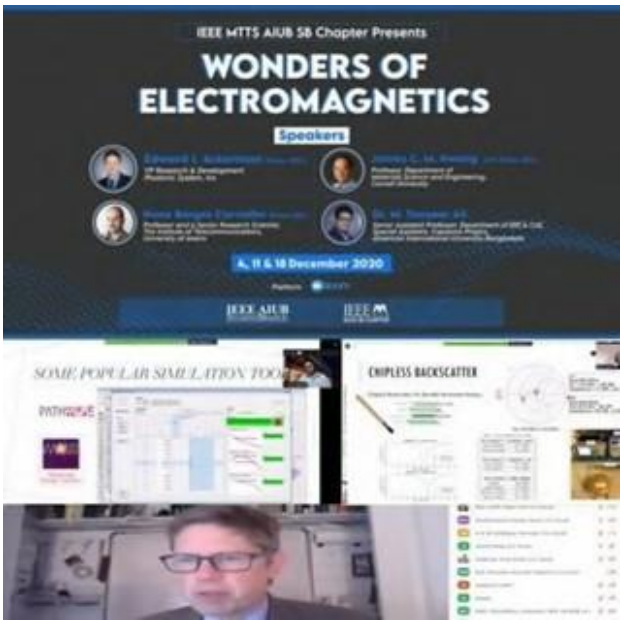
On 5th December 2020, the IEEE AIUB Student Branch organized a webinar session titled "Mastering Professional Etiquette: Strategies and Tips for the Workplace" in the virtual platform of GOOGLE MEET. The session was conducted

by Dr. Uzma Akhand Hossain, teacher, education consultant and Vice President of Human Resources and Training at C&T Home Care. In her session, she focused on the analysis of corporate life's success and partnerships. She covered the anticipation for young graduates and professionals to serve in this field for their advancement. The session witnessed more than 94 participants, including respective remarks from Prof. Dr. ABM Siddique Hossain, Dean, Faculty of Engineering, AIUB; Advisor, IEEE AIUB SB, Md. Moinuddin, Clinical Services Team Manager at C&T Home Care; Former Chairperson, IEEE AIUB SB, and Dr. Mohammad Hasan Imam, Counselor, IEEE AIUB SB; Senior Assistant Professor, Faculty of Engineering, AIUB.

Distinguished Lecture Series titled "WONDERS OF ELECTROMAGNETICS"

Fardeen Mahbub, Publication Coordinator for IEEE AIUB Student Branch

The IEEE AIUB SB in collaboration with the IEEE AIUB MTTS Student Chapter, organized a Distinguished Lecture Series titled "WONDERS OF ELECTROMAGNETICS" via the virtual platform of ZOOM Meetings. The first session of the series was held on 4th December 2020, titled "ANALOG PHOTONIC SYSTEMS: FEATURES & TECHNIQUES TO OPTIMIZE PERFORMANCE", conducted by Edward I. Ackerman, Vice President R&D for Photonic Systems, Inc. of Billerica, Massachusetts. The second session of the series was held on 11th December titled "BRIEF INTRODUCTION TO SIMULATION TOOLS FOR RESEARCH IN COMMUNICATION TECHNOLOGIES" conducted by Dr. M Tanseer Ali, Senior Assistant Professor, FE, AIUB, and Advisor, IEEE AIUB MTTS Student Chapter.



The final session was also held on the same day, titled "ENERGY-EFFICIENT SIMULTANEOUS WIRELESS BACKSCATTER & POWER COMMUNICATIONS," conducted by Nuno Borges Carvalho, Professor and Senior Research Scientist, Institute of Telecommunications, University of Aveiro. All the sessions witnessed more than 80 participants.

IEEE BMSIT&M Student Branch [Bangalore Section]

Glimpses of IEEE SB BMSIT&M

Nidhisha K, Secretary for IEEE BMSIT&M Student Branch

IEEE BMSIT&M SB has always given priority to diffuse knowledge regardless of the status quo.A webinar on 'Roadmap to NASA' was conducted on 5th December 2020 by Dr. Goutam Chattopadhyay, a Senior Scientist at NASA-JPL. He gave insights on NASA's research trends to over 115 attendees. Webinar on 'How to master AI-ML with AWS' was conducted by the CS Chapter on 19th December 2020. The speaker Mike Chambers, an AWS Hero, gave insights on AI-ML and services by AWS to 70 participants.On 11th January 2021, we conducted 'APIs for beginners' by Mr. Ali Mustufa, Student Community Manager at Postman. He introduced API to 40 participants. We established the IEEE SPS to open prospects for a larger audience. Dr.Anjan Krishnamurthy, the Branch Counsellor received the Best Researcher award. Ms. Shubham Raheja won Fastest Member-Get-Member Reward, while Mr. Harish Kumar received the SAC Volunteer award. Ms. Likitha Madhav M R did the SB proud by winning the prestigious REM Scholarship. TheSB shall prevail disseminating radiance and reach great heights in every endeavor.

IEEE BUP Student Branch [Bangladesh Section]

"Ciptor Presents MasterTacts 2020"- An Experience of Corporate Recruitment

Syed Sadia Hossain, Chair for IEEE BUP WIE AG

IEEE BUP WIE Affinity Group introduced their biggest sponsored event named "Ciptor Presents MasterTacts 2020", from 10th to 30th October 2020. It let the undergrad students experience the complete journey of Corporate Recruitment.
117 participants from 22 different institutions participated.

The competition comprised 2 rounds. In the first round, participants had to make a professional CV with a given scenario. The top 10 best-presented ones were announced as finalists. The finalists were individually interviewed by the judges to determine who possessed enough competence and professionalism to conquer the pressure test of an interview board. Notably, the winners received internship opportunities in a reputed

career development company named "Smartifier Academy".

To groom the participants regarding the job recruitment, a Facebook LIVE session was broadcasted with a HR specialist, Munzereen Shahid on 18th October 2020. This session witnessed over 33,000 views and more than 90,000 outreach.

IEEE HIET Student Branch [Karachi Section]

Join IEEE to become an Effective Professional

Muhammad Faizan Usman, Branch Counsellor for IEEE HIET Student Branch

Hamdard University Karachi has a tradition of taking initiatives and steps which highly contribute in the grooming of students. On the proposal of Engr. Muhammad Faizan (IEEE HIET Student Branch Counselor) and Dr. Muhammad Faisal Khan (IEEE Karachi Section Executive Committee Member), Prof. Dr. Shabib Ul Hassan (Vice-Chancellor, Hamdard University) approved the sponsorship of 38 IEEE student memberships for 2021.

Along with this activity, IEEE HIET SB organized a webinar titled "Join IEEE to become an Effective Professional" on 19th December 2020 to encourage students for IEEE memberships. The webinar was hosted by Engr. Faizan. A number of speakers from academia and industry highlighted the benefits of becoming part of IEEE to the students. Dr. Irraivan A/L Elamvazuthi (Chair IEEE Robotics and Automation Society Malaysia Chapter & Associate Professor, UTP Malaysia) and Dr. Ali Zaid from United Kingdom, were also part of the event as speakers.

IEEE IIT Kharagpur Student Branch [Kharagpur Section]

Newsletter of IEEE CS SBC IIT KHARAGPUR

Sourav Biswas Sukanya Das, Content Writer for IEEE IIT Kharagpur CS Student Chapter

A Pre-U STEM webinar was held on 14th December 2020 to interact with school students on the topic of 'Searching for Black Holes' with 91 participants including students from various schools. Black holes are the most extreme environments in nature, where the force of gravity is so strong that even light cannot escape. Theories of stellar evolution predict that black holes of various masses must be everywhere in the Universe. This event interacts with the school students to create a zeal for taking STEM education in the future. The speaker Dr. Somak Raychoudhary discussed the work of Nobel awardee Roger Penrose, Andrea Ghez, and Reinhard Genzel and connected with the audience by discussing India's present and future research opportunities. A workshop on Docker by an experienced researcher Dr. Arif Ahmed was held on 21st February 2021, attracted a total of 106 participants, and ended with a wonderful Q&A session.

Distinguished Lecture on RFID Systems and Design of Organic Antenna-in-Package

Prajakta Sathe, Chair for IEEE IIT Kharagpur AP MTTS Student Chapter

IEEE IIT Kharagpur AP-MTTS Student Chapter, under the umbrella of the Kharagpur Section, organized two significant distinguished lectures (DL) attended by several viewers. A DL on "RFID Systems and Applications" was delivered by Prof. Atef Z. Elsherbeni from CMES, USA on 29th December 2020.

Starting with a brief overview of the RFID concept, he introduced the superiority of chip-less RFID tags over conventional RFID tags. Prof. Elsherbeni then acquainted the viewers with several real-life applications of UHF RFID technology. This enlightening talk was attended by 50 participants.

A distinguished lecture on "Organic Antenna-in-Package Design for Millimeter-Wave Applications" was delivered by Dr Duixian Liu from IBM T. J. Watson Research Center, USA on 12th January 2021. The main emphasis was on areas related to Millimeter-Wave-Technology of research at IBM and the inevitability of its uses globally. This enlightening talk was attended by 35 participants.

IEEE NSU Student Branch [Bangladesh Section]

Region 10 WiP International Women's Day Celebration 2021

Mayesha Tafannum, Chair for IEEE NSU Student Branch

Celia Shahnaz, R10 Representative for IEEE PES Women in Power Bangladesh

On 8th March 2021, IEEE PES Women in Power (WiP) Region 10, in partnership with WePower, organized a virtual celebration, in honor of the International Women's Day, via the ZOOM Platform.

The event was inaugurated by Dr. Celia Shanaz, PES WiP R10 Representative, and Chair for IEEE Bangladesh Section. She motivated the audience to come forward in working beyond borders. Thecelebration was honored by the presence of Dr. Ruomei Li, Chair for IEEE PES WIP. Her inspiring speech explained the need of empowerment, opportunity and inspiration in creating more women in leadership. The session witnessed around 40 participants in the ZOOM meeting, including the IEEE Bhubaneswar Subsection Young Professional Chair, Dr. Tanmoy Roy Choudhury, individuals representing Grameen Shakti, a renewable energy social enterprise in Bangladesh and other Students and professionals. The session was moderated by Mayesha Tafannum and was broadcasted live fromthe Facebook of IEEE Bangladesh Section.

IEEE RUET Student Branch [Bangladesh Section]

Techshield 2020

Tahsin Tabassum, Newsletter Editor for IEEE RUET Student Branch

Among all the events organized during the Covid-19 pandemic, "TechShield- 2020" event stood out the most. IEEE RUET RAS Student Chapter and IEEE RUET WIE Affinity Group, in association with IEEE RUET Student Branch and sponsored by Asian Trafic Technologies Limited, organized "TechShield- 2020", a pilot event of IEEE YESIST12. It was a competition for innovative ideas which was divided into three rounds. The first round of "TechShield 2020" included the abstract submission where almost all students from 25 different universities submitted their ideas. 31 proposals were selected to proceed to the next round.

The second round consisted of demonstrating the developed idea virtually. To reach out to all the universities, ambassadors were called to promote the event. A webinar on "Fog Computing and Emerging Technologies" was also jointly organized by IEEE RUET RAS Student Chapter andIEEE RUET WIE Affinity Group inassociation with IEEE RUETStudent Branch.

IEEE University of Peradeniya Student Branch [Sri Lanka Section]

EMPIRICAL – Unleash the Potential

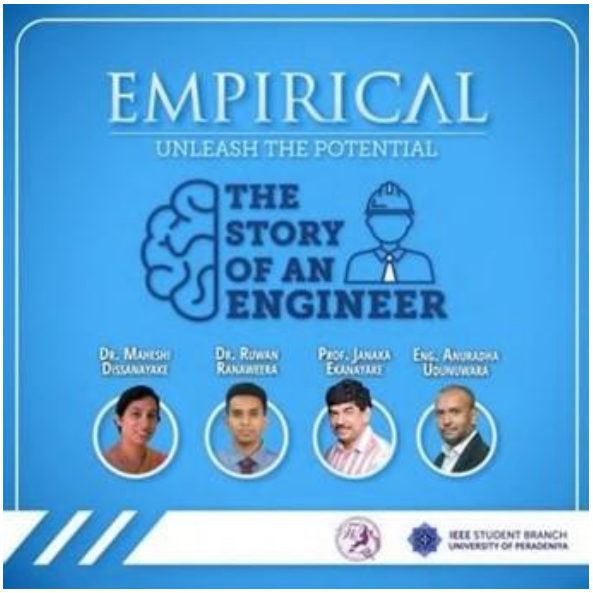
Nanduni Upendra, Secretary for IEEE University of Peradeniya Student Branch

"Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world."

-Harriet Tubman

Engineering is one of the key influences that shape society by using models provided by science combined with innovative thinking to solve problems and create new designs that benefit humanity. As engineering undergraduates, despite the knowledge acquired through the degree, dothey have the right temperament to be an engineer with certain characteristics and typical qualities is an authentic question. As a timely solution, a panel discussion 'Empirical'- The life story of an engineer was organized with 4 professionals who have excelled in their fields by the IEEE Student Branch in collaboration with the IEEE Women in Engineering Affinity group at the University of Peradeniya. It was held on 3rd March 2021 from 3PM onwards via zoom and the discussion was based on the life story of an engineer from academic life to the next step they have taken after graduating. The audience had the opportunity to meet the panelists, who are well proficient and skilled along with many experiences. Prof. J.B. Ekanayake, Dr. Ruwan Ranaweera, Dr. Maheshi Dissanayake, and Eng. Anuradha Udunuwara were the four intellectuals who participated as the panelists of the day, being four proud products of the University of Peradeniya. The session was carried out in three stages discussing life as an undergraduate andthe steps taken after graduating, the momentousness of IEEE membership as an engineering undergraduate, and finally, the opportunity to interact with the esteemed professionals in the Q&A session. About 100 audiences consisting of undergraduates and graduates participated in the webinar, and each and every question raised by the audience during the Q&A session seemed tobe unique and enthusiastic. How to strengthen your knowledge and develop skills persistently, how to adapt to the rapidly changing corporate world to move ahead productively, and how to recognize your career opportunities on your path effectively were the main focus areas covered

during the discussion. "If you are passionate about what you do, you will achieve what you want, so develop a passion for learning. If you do, you will never cease to grow." was main highlight of the session. The valuable time devoted by the panelists along with the appreciable engagement in conversations of students who participated made the event a great success and hopefully gave the undergraduates the best insight into the role of an engineer in different aspects to unleash their potentials and be corporeal engineers.



IEEE VSSUT BURLA Student Branch [Kolkata Section]

Experiencing the Technical Vibes Virtually

Sai Samarpita, Member for IEEE VSSUT BURLA Student Branch

The IEEE VSSUT BURLA Student Branch proved that even the pandemic cannot stop their flow. To experience the vibes, the workshop on Recent Advancements and the Future of Python was conducted on 26th September 2020 in collaboration with CTTC, Bhubaneswar with 45 attendees. To celebrate IEEE Day, three events were conducted. The first is a workshop on Introduction to Matlab and Simulink on 5th October 2020 in collaboration with CTTC, Bhubaneswar with 45 attendees. The next is a webinar on IEEE - Beyond the Sphere by Dr. S.R Samantaray, Secretary, IEEE Bhubaneswar Subsection, on 5th October 2020 with 55 participants. The final webinar on The Future of Farming- Artificial Intelligence andAgriculture, was held on 6th October 2020 with 38 attendees. The Speaker was Mr. Suvendu Kumar Dash, the CEO and CTO at Oretes. All events were conducted on Google Meet and streamed live on the official YouTube channel of the Student Branch.

IEEE VJCET Student Branch [Kerala Section]

Automatic Tap and Hand Sanitizer Setup by Engineering Students

Abba Mathews, Chair for IEEE VJCET Student Branch

To prevent the spread of coronavirus through hospitals, IEEE SIGHT of Viswajyothi College of Engineering and Technology (VJCET) proposed a project 'Let's Unchain It'. The project was sponsored IEEE SIGHT and HAC funds. Due to lockdown and Covid19 pandemic, the project implementation started in September 2020 with a team of 16 members. The Government Thaluk Hospital, Adimali, is the main hospital in Idukki. With daily patients of 900 in the OP department together with total human resource of 183 including 20 doctors of different specialties, it was necessary to implement automatic hand sanitizer and automatic tap to prevent the spreading of coronavirus. It was especially useful for tribal people during the pandemic period to visit the hospital safely. We implemented the automatic tap and hand sanitizer at the hospital as well as at primary health centre in Valara, Adimali, working under the Adimali Thaluk hospital.

7. OTHER ARTICLES

IEEE President-Elect Candidates Q&A Session at the R10 AGM

Question 1: Section Congress Recommendations
Source: India Council
Two of the top recommendations from Sections Congress are:

1. **Provide continuing education with true value-added for working professionals and**
2. **Provide resources to the Section to serve industry professionals and engage with local industries.**

From your perspective as an IEEE Leader, what are the expected outcomes from these recommendations and what will you do to achieve them?

Francis Grosz:
For continuing education, MGA does support EAB. In many cases we don't communicate well to what we have available to our members I think IOM will be of big help here. But we need to provide more on continuing educationfrom members in the industry. For number two I think local groups will be a major resource. If you are not familiar with this, I urge you to find about it, but it gives Sections the chance to create a local group for a pocket of industry in their area and provide resources also for things which can fall neatly under one society or the other. I think this is going to be a tremendoustool for local engagement with industry and I encourage you all to look at thisand consider what you might do in your area.

Saifur Rahman:
I will speak to both of these issues based on what we have done in PES and what I have done myself. With respect to the issue of continuing education, I have helped to form the PES university. And the impetus was this – in my recent travels to Asia and Europe, I have talked to many industry engineers and asked them why they are not IEEE members. The most common answer has been – "IEEE is not relevant to me". When I asked them what can we do tomake IEEE relevant to them, the response is – "do something for me that I cannot get otherwise". When I talk about lifelong learning through IEEE education, that resonates with them. The PES University plays a big role in this. The second issue is local empowerment. As you know, the big countries in R10 like India and China have IEEE Councils. But those Councils are not very active because they have no budget to work with. I have set up PES Chapter Councils in China and India, for example. We have given budget

support to these Councils so they can do their own local programs thereby attracting industry engineers to participate. I hope this model would be useful to expand to the IEEE level. Thank you.

S. K. Ramesh:
These are two areas that I worked on for a number of years. In IEEE, you heard about the IEEE learning network. I championed that as VP of educational activities. But remember I mentioned the IEEE academies started by President Toshio Fukuda and this is important. We have academies on artificial intelligence, smart grid, IOT. This needs to continue. With the challenges with the pandemic this has become all the more important to provide professional and career guidance for our members. It needs to be affordable, it needs to be accessible, number one, number two, when it comes to industry engagement, the industry engagement committee is talking about locally engaging the Sections. Think about a customer resource management kind of tool so you find out what industries are there in your local region, in your local section, and enable them to connect with IEEE through a hub model. This is very critical. Our conferences, publications, and standards,all of these need to be geared towards industry practitioners and remember nothing we do is discrete, everything is continuous. So we need to continue the good work started by previous leadership and embark on new avenues, and improve access. So, it gives tremendous value to our members. So I really appreciate this question. Thank you.

Question 2: IEEE Finance
Source: Western Australia Section
IEEE incomes from conferences have greatly dropped in 2020 and the trends towards Open Access are expected to affect the incomes from IEEE Publications. Given the fact that these two are the main pillars of revenues for IEEE, what do you suggest that IEEE may do to make ends meet?

Saifur Rahman:
Yes, we have noticed that this is a challenge. Income from conferences and publications might shrink. But we have not talked much about income from education programs in this context. We have a huge volunteer base that we can take advantage of – both as content providers and content users. PES began to promote its education program significantly three to four years ago,which has now become the third pillar of our income. The IEEE Learning Network can be expanded along these lines to make education a marketable product for IEEE. This could includecertificate programs, webinars, in-house trainings, etc. In PES we have programs where we work with companies/organizations to provide in-house training to their engineers on topics of interestto them for a fixed amount of fee which is an income for the society. I hope we can expand such programs across all of IEEE if I am successful in this election. Thank you.

S. K. Ramesh:
Clearly this is a very critical question given that a majority of our revenue comes from conferences and publications. Conferences have already started to adapt to hybrid and virtual modes and as a matter of fact the way that we are working in IEEE is changing dramatically thanks to the technology that the members are developing. So, every conference that we will come up with needs to have sound business models that enable IEEE to thrive in these new virtual realities even when you come back post pandemic. Open access has been there even pre-pandemic, and the IEEE Publications board has been working overtime very cautiously and optimistically to ensure that IEEE is at the forefront. So that when the transition occurs, we are ready. This is going to be a long process, there is a lot of competition here, but I truly believe

that IEEE needs to lead the way. So we can serve our members effectively. There are things that we are doing right now in Open Access with Read and Publish for instance. With hybrid and virtual conferences, and Open Access, all of these initiatives, I believe will lead to substantial sustainable development for IEEE in our regions, in our Sections and across the IEEE. Thank you.

Francis Grosz:
We have challenges. Conferences for example we are going to be looking at hybrid models, I think this gives us a chance to bring our conferences to an audience that we have never been able to reach before, people who could not have traveled there. I think that will provide us with an additional opportunity. We have already been working on Open Access. We have Open Access journals. This is we have been looking at this thread for a while and we have been addressing it and we are going to continue to do. So I think our third tool is new next generation financial system which is going to be in place beginning of April. This is going to give us a better opportunity to track our income, our expenditures and fine tune our financial system in a way we have never been able to do before. I think these three things will enable us to ride through this. Thank you.

Question 3: Membership Fee
(1) Source: Indonesia Section
During this pandemic and economic slowdown, do you think reducing the membership fee is an option?
(2) Source: Kolkata Section
Is it possible to allow net banking and/or debit card payment options for membership fees?

S. K. Ramesh:
This is something that we have been talking about for a long time, remember its value of membership and it is really important. There is on adhoc on membership dues right now that is looking very closely at reducing dues. We already have a 50% reduction in dues for students. If we are looking at the entire membership to see how we can support our members wherever they are in the world because we know that IEEE's membership is diverse, and this is where we need to be very careful and how we go ahead and implement it this year. For instance, under our bylaws, we had the opportunity to automatically increase the dues this year. We did not do that. The board of directors just voted to say no, we are going to keep it at the same level, given the economic slowdown. In response to the second question from Kolkata section with Next Gen we may have some options. The idea is ultimately we want to be able to support our members as a member friendly organization. I believe they will get there, there are very smart people that are working on these things. And with the MGA I am pretty confident that we will come up with a model that supports all our members. Thank you.

Saifur Rahman:
It's a very good question, I have been engaged in this discussion for a very long time. I come from a developing country originally so this is a big issue for me personally. It is very difficult to give a single solution for a whole country because the requirements are different from individual to individual. For students across all of PES we have established scholarship programs where industry contributes funds to support the program. Money from the industry Corporate Social Responsibility (CSR) is another source of money for scholarship programs, especially in Region 10. It may be possible to look at that model to see if we can support the membership dues at

least partially, for some members who cannot pay the full fees as a result of the economic slowdown. Other program to support membership dues is the PES Corporate Engagement Program I started in 2017. In this case the employer pays the dues of a number of its engineers at the prevailing rate in exchange for getting certain benefits from PES. This corporate engagement program is now active in India and China in Region 10. And for net banking – it is happening already to some extent and I hope that continues. Thank you.

Francis Grosz:
So the first question, there are a number of answer to this. As Ramesh mentioned we have a committee looking at changing membership dues. We have special circumstances dues, the membership dues, and so on. The 50% reduction for students, so there is a lot of options to this. For example, members in the United States who can pay, it is certainly possible to do net banking debit cards and the new Next Gen finance system is supposed to make much of this possible. So I urge you to watch what is going to happen and see how this develops. Thank you.

Question 4: Section Operation
(1)Source: Indonesia Section
What is your action or implementation for a "never change" leadership (take the leader position for many years without replacement) in a chapter or other IEEE OU?
(2)Source: Kolkata Section
Is there any scope to get other kinds of funding for a Section other than the Section Operating Fund?

Francis Grosz:
The IEEE board some time ago passed a limitation of six years in any position, whether that is the right number, should be shorter or so on is a good question. They don't necessarily enforce it except for Section Chairs and Treasurers but we probably ought to look at it and if it becomes too difficult to move somebody out you can contact MGA. Additional funding, there are additional funds available in terms of various grant programs and other things, Humanitarian Activities Committee and the New Initiatives Committee and so on have programs, take a look at those. There are additional funds. Thank you.

S. K. Ramesh:
This is a great question. Remember we talked about volunteer engagement and in order for us to engage volunteers we need to have fresh volunteers coming into the organization and have a continuous chain of new volunteer leaders coming in. Yes, the IEEE bylaws are there and they talk about the term limits and so forth but it is really up to us as volunteer leaders, the Section Chairs, the Region Directors. I know we are diligently working with MGA to ensure that there is continuity and at the same time opportunities for the new leaders. So this is something that we need to take very seriously. On the second question, if you look at the overall revenue from membership dues, it is about 31 million dollars, give or take. Two third of that goes to the Sections and Regions right now. And we really need to be thinking about what else can we do in terms of programs and services. Continuing education has come up; Industry engagement has come up. All of these provide opportunities again for Sections to serve our members. To be entrepreneurial, think about the IEEE entrepreneurship community in order to serve their members. So thank you for that. Great Question. Thank you.

Saifur Rahman:
A good question from Indonesia Section. This is a challenge we always face as two of my previous speakers have talked about. Why does it happen? Because at the volunteer level, the member doesn't have the time or the initiative to reach out to the Section Chair to complain. I want the volunteer leadership functions to be very open, I want to have direct connections between the Section leadership and Region 10 Director. In this way, Section members will have an opportunity to speak out if something like you said here is happening. This is what we have done in PES through the PES Chapters Council, and it is working quite well. Now, the question from the Kolkata Section. In terms of other kinds of funding again I know some Sections in India are reallyrich, because they do a lot of events and they earn income. So please be entrepreneurial; you canbe rich because you can earn money. I have seen in Indonesia, Thailand and Singapore, Chapterscharge fees for members and non-members to attend some of their distinguished lecture and other events, thereby generating income for their Sections. So, I hope something like this can bedone throughout IEEE. Thank you.

Question 5: Region 10
Source: India Council
The expectations from IEEE member benefits from different Regions are different. What is your opinion on customizing the offerings/services/benefits of IEEE Region-wise to suit those in those Regions rather than having generic/common services? If you like to go for this, what all customization would you make for Region 10?

Saifur Rahman:
This is interesting model and I have talked about this myself because we cannot put all countries in Region 10 in one box; there are different cultures, languages, best-practices, business activities, etc. So my focus as the IEEE President would be to continually listen to you and learn about your needs and how those could be met. I will talk to the Section leaders in this case and ask them what has worked in their Sections and what can be learned from other Sections in Region 10 to better support member needs. I have seen different models being used in China andIndia, for example. There are ways to customize a country's needs based on what has worked locally, what can be learned from, what is working well elsewhere in R10. I would listen to you and go from there. Thanks.

Francis Grosz:
One of the problems we have looked at this in the past, one of the problems with this is increases expenses so that it becomes more difficult to provide the same level of service at the same cost. So we need to look at what we provide and try to make sure that we provide the essential services to all our Sections and Regions of the world. I do think there are opportunities for optional services as part of IEEE membership to provide a customized or semi-custom approachfor each Region. And it is something we should look at it and we do have a committee that actually looks at that, the member benefits and portfolio advisory committee. Thank you.

S. K. Ramesh:
This is something that I have been thinking about for a long time and as I shared with you in my remarks earlier, really the root of this question is member engagement. So no matter where you live and work, what are the benefits that you can get from IEEE? And speaking specifically about Region 10, I have talked to our members during our town halls there that say it would be nice for

us to download let's say a certain number of papers from IEEE Xplore, or student members may want to have membership in different societies. Right now PES, Computer Society and MTT are offering the 50% discount to members along with a 50% discount in student dues. So, I think there is an opportunity for us to listen. We have all Societies research projects. We have the MGAsurvey results and we can customize various benefits relevant to our members. IEEE is a global organization but it is local when it comes to impact, so we need to listen to our members. We need to act on their suggestions, and we can do this. We have the resources to do this and we can do this thoughtfully and sustainably. Thank you.

Question 6: Region Realignment
Source: Western Australian Section
IEEE is working on Regional Realignment with 2 regions allocated to Region 8 and 10, while reducing the total number of regions for R1-7 and R9.
(1) What is your view on how to realign Region 10?
(2) What are the possible consequences if the Board of Directors DO NOT approve the proposal?

S. K. Ramesh:
This is 60 seconds mind you and we have got a couple of ad hoc that have been working on this for the last couple of years. But, seriously, when you think about our membership, you need to be thinking about the best options to serve our members wherever they are. Region 10 has come up with an option, Region 8 has come up with an option and we are talking right now. But I really believe we need to be thinking about the metrics if we were to make this change. What is it going to do for the individual member, what is it going to do for the individual member in Japan and Indonesia and China, just speaking about Region 10 or in India. And then we need to figure out a way to implement it and look at the cost of implementation, because, ultimately when you are talking about realignment, there is an administrative cost associated with that. So, I truly believe and support the work of the ad hoc committee. I will respect that as IEEE President-Elect and ultimately, we need to do what is best for our members. That has to got be a driving force to create an IEEE of the members, by the members and for the members. Thank you.

Francis Grosz:
I would not presume to tell you all how to realign Region 10. Actually, the Region realignment

should be done by the Region and represented by your Director and Director-Elect. Directors and Directors-Elect have been members of this committee since it started, Akinori was a valuable member last year or two years before. Deepak is now. You should decide for yourself how best to reorganize your Region. As far as the possible consequences if the board does not approve the proposal, I think if a proposal comes from MGA the board is very likely to approve it. And my sense of the board is that the board is very much behind this. Thank You.

Saifur Rahman:
This is a long-standing issue, and both of my previous speakers have talked about this. An IEEE ad hoc is working on this and based on what I have heard from their reports, there will be two regions in Region 10. So, countries will be realigned into two groups within R10. But the questionis - what does it mean. There will be two groups of countries in R10. Since Sections in these countries have worked together for a long time focusing on their country's (Section's needs), they will be able to come up inter-regional programs, given proper communication among them can bedeveloped, which will be my priority. I understand MGA is coming up with some working models,but more discussions on this issue are needed on the IEEE Board. I do not expect there will be

any opposition at the Board level if MGA presents a balanced approach. But the whole thing may take longer than you think. Thank you.

R10 WIE: Virtual Networking Tour with Visionary WIE Leaders

Kripa Kundaliya, Vice-Chair for IEEE WIE MEFGI Gujarat Section
Foram Rajdev, Committee for R10 WIE, and Chair for IEEE WIE & YP Gujarat

The purpose of the event was to inspire the young minds by providing them an opportunity to network one on one with the visionary WIE leaders and share insights on various topics. The session started with warm greetings from the moderator Kripa Kundaliya. She welcomed and briefed everyone about the event. Prof. Foram Rajdev, WIE Chair, IEEE Gujarat Section delivered the welcome address. The event highlight was the distinguished presence of Mr. Deepak Mathur, IEEE Region 10 Director, as chief guest for the event. He gave opening remarks to the event where he acknowledged various women leaders in IEEE. Further, he discussed the Region 10 initiatives, thrust areas and priorities to consider. As a small token of appreciation for Mr. Deepak Mathur, IEEE WIE Region 10 and WIE Gujarat Section presented him with a virtual gift.

The IEEE WIE Region 10 Chair, Emi Yano addressed the participants and put forward a presentation where she discussed the activities that have been planned for the year 2021. She motivated the participants to dedicatedly work for the WIE for creating a change in the society. Leadership is lifting a person's vision to high sights, the raising of a person's performance to a higher standard, the building of a personality beyond its normal limitations. All the speakers shared their vision as a WIE leader. Finally, the networking sessions began. All the participants were divided into different groups and they had breakout sessions with one speaker in each group. Everyone had the opportunity to talk and participate in the networking activity. Many different activities were planned by our wonderful speakers. Different networking activities were planned for every break out room.

The breakout sessions were for 20 minutes wherein they discussed the networking activity of their group and shared the feedback.

Finally, the vote of thanks was proposed by Shanza Khan - WIE R10 Committee member. The event video is available on IEEE Region 10 YouTube Channel.

IEEE IBSSC 2020

IEEE Bombay Section Signature Conference – IBSSC 2020, was held in virtual mode from 4th to 6th December, 2020. While the theme of this Conference was "Frontiers of Technologies: Fuelling Prosperity of the Planet and People", the tracks were Industry 4.0, Blockchain, Electronics Surveillance and Education Technology. The conference received an overwhelming response with 97 submissions from industries, academia, and research institutions out of which

48 were accepted for oral presentations. The conference had keynote addresses on all 3 days. Day 1 of the conference commenced with a keynote address by Mr. Ramanan Ramanathan - Mission Director, Atal Innovation Mission & Additional Secretary at NITI Aayog. Day 2 of the conference commenced with a keynote address by Dr. Tessy Thomas of Defence Research & Development Organization (DRDO), India. Day 3 of the conference commenced with a keynote address by Mr. Ramesh Menon - Chief Architect, US Federal CTO at IBM. In addition to the keynotes, there were 7 talks by experts from both industry and academia. The details of the expert speakers are as follows:

- Industrial 4.0 Standard by Dr. Mangesh Chansarkar, SirF Technology, USA,
- Educational Technology by Mr.Franxan Stanley, Aye Learning Labs, India & Prof. Sridhar Iyer, IIT Bombay
- Blockchain by Prof. Vidy Potdar, Curtin University, Perth, Australia & Ms. Debajani Mohanty, Consultant and Author, India
- Tactical Missile System by Mr. Ajit B Chaudhary, Project Director Akash, DRDL Hyderabad
- Beam Control Technology for Laser System by Dr. Jagannath Nayek, Director, CHESS, DRDO

The conference highlight was a panel discussion on Impact of Industry 4.0 with panelists which included Mr. Abhay Phansikar, Dr. Bheesette Satyanarayana, Mr. Anand Gharpure and other invited speakers. The conference was attended by 136 participants. Four categories of awards

including Promising Paper, Promising Work, Best Paper Award and Best Research Group were presented to researchers. The presenters were also awarded with prize money from each track after a thorough review process.

CONFLUENCE 2021

The Department of Computer Science and Engineering, Amity School of Engineering and Technology (ASET), Amity University, Uttar Pradesh organized the 11th International Conference CONFLUENCE 2021, on the theme of "Cloud Computing, Data Science and Engineering" in virtual mode. The two-day enthralling conference was organized in industry partnership with AWS and Microsoft and technically co-sponsored by IEEE UP Section, India. Academic partners for Confluence 2021 were University of Florida, USA; Iowa State University, USA; University of Queensland, Australia; University of Cape Town, South Africa; University of Melbourne, Australia, & University of Western Sydney, Australia, while media partner was DataQuest.

CONFLUENCE has been a popular initiative which in the last eleven years has ignited young minds to be the change of tomorrow as per the vision of Honorable Founder University President Dr. Ashok K. Chauhan, who himself stands as a visionary leader and an inspiration for all Amitians. With positive energy, the summit got initiated under the dynamic leadership of Honorable Chancellor, AUUP, Dr. Atul Chauhan and boundless support of Prof (Dr.) Gurinder Singh, Group Vice Chancellor, Amity Universities and Vice Chancellor, AUUP, Prof. (Dr.) Balvinder Shukla.

CONFLUENCE witnessed keynote addresses by more than 45 international speakers from across the globe including Cambridge University, UK; University of Cincinnati, USA; Iowa State University, USA; Beni- Suef University, Egypt; The Open University, UK; Middlesex University, UK; University of Lisbon, Portugal; University of Melbourne, Australia; Northwestern University, USA; University of South Florida, USA; Uppsala University, Sweden; University of Salford, UK; London Metropolitan University, UK; Monash University, Australia; National University of Singapore, Singapore and many more.

There had been an overwhelming response for research paper submissions wherein 694 research paper submissions were received on the conference theme and related domains from faculty members and Ph.D. scholars from across the globe. With a staggering review process, only 190 manuscripts that met stringent requirements of high scientific quality and significance, originality, and priority were accepted and got registered for presentation during the two days of the conference in various technical sessions. All the papers registered and presented will be sent to IEEE Xplore Digital Library for publication and all published papers would be indexed in SCOPUS.

The guests of honors, Mr. Deepak Talwar, National Security Officer, Microsoft & Co-chairman - Security Council, ASSOCHAM; Guest of Honor, Prof. (Dr.) Bernhard Pfahringer, Professor, Waikato University, New Zealand; Prof. (Dr.) Simeon Simoff, Professor, University of Western Sydney, Australia; Prof. (Dr.) Frada Burstein, Professor (Adjunct) Monash University, Australia; Prof. (Dr.) Tay Yong Chiang, Professor, National University of Singapore, Singapore inaugurated the conference on a high note. Mr. Ankush Minocha, CIAO, WIPRO, India delivered the keynote address during the inaugural ceremony.

Through a range of keynote speeches, special sessions such as CXO Forum, panel discussion and industry sessions, the audience witnessed new ways to deal with the challenges faced in areas of cloud computing, data science and engineering. Pre-CONFLUENCE workshop on cloud computing was also conducted wherein more than 200 students from different disciplines of engineering participated and got trained on cloud computing.

BLESSINGS BY DR. ASHOK K CHAUHAN, HONORABLE FOUNDER PRESIDENT AND DR. ATUL CHAUHAN, HONORABLE CHANCELLOR AMITY UNIVERSITY

The aura of technological eagerness and curiosity continued to the finale of the conference keeping the spirit of exploration and research high. Valedictory session was graced by Guest of Honors, Prof. (Dr.) David Gries, Professor, Cornell University, USA; Prof. Dr. Mohamed Ibrahim bin Abdul Mutalib, Vice Chancellor, Universiti Teknologi Petronas, Malaysia; Prof. (Dr.) S.N. Singh, IEEE India Council, Immediate Past Chair (Core Committee Member (2021 & 2022), Professor, IIT Kanpur; Prof. (Dr.) Samir Shah, Professor, Drexel University, USA; Mr. Haru Mehra, CEO of LE Frehindi, Paris and Prof. (Dr.) Peter Robinson, Professor, Cambridge University, UK delivered keynote addresses during the Valedictory Session.

ADDRESS BY PROF. (DR.) DAVID GRIES, CORNELL UNIVERSITY, USA

ADDRESS BY PROF. (DR.) PETER ROBINSON, UNIVERSITY OF CAMBRIDGE, UK

IEEE WIECON 2020

Celia Shahnaz, Chair for IEEE Bangladesh Section and General Chair for IEEE WIECON ECE 2020; Renu Sharma, Chair for IEEE WIE Bhubaneswar Subsection and General Chair for IEEE WIECON ECE 2020

Women in Engineering Conference (WIECON) is the flagship event of IEEE Bangladesh Section. It is a multidisciplinary conference organized with the objective of bringing together academicians, scientists, researchers from industry, research scholars, and students working in all areas of electrical and computer engineering. It was first organized in 2015 at BUET, Dhaka, Bangladesh. Since then. IEEE Bangladesh Section partners with different Sections, Subsections, and their affinity groups to host the conference. This year, IEEE Bangladesh Section and IEEE Bhubaneswar Subsection jointly organized the 6th IEEE WIECON ECE 2020 on 26th & 27th December, 2020 along with their respective WIE AGs focusing on both theory and applications in the broad areas of Electrical Power Engineering, Advanced Computing, Communication Engineering, Robotics Engineering, Mechanical Engineering, Humanitarian Technology, Biomedical Engineering and Civil Engineering.

The conference received a good number of submissions numbering more than 550. These submitted papers came from different corners of the world. All these submissions were subjected to a rigorous review by the members of the Technical Committee and global subject expert reviewers. After an intense scrutiny of reviews, only 115 high-quality papers were accepted for presentation at the conference. IEEE PES Women in Power Summit was also conducted wherein students from various countries have participated. Details of Keynote/Invited Speakers are as follows:

- Prof. Ljiljana Trajkovic, Life Fellow of IEEE; IEEE Division X Delegate/Director (2019–2020)
- Prof. S.N.Singh, Chair IEEE India Council, 2019-2020
- Prof. Bozenna Pasik-Duncan, Ph.D. D.Sc., IEEE Life Fellow, IFAC Fellow and AWM Fellow; Professor of Mathematics and Engineering University of Kansas, Lawrence, Kansas, USA Past Chair of IEEE WIE
- Prof. Noel N. Schulz, PhD, Fellow of IEEE Professor, School of Electrical Engineering and Computer Science, Washington State University Pullman, USA
- Prof. G. Bhuvaneswari, PhD, Fellow of IEEE & Professor, Indian Institute of Technology (IIT), Delhi
- Prof. Sushmita Mitra, PhD, Fellow of IEEE, INSA, IAPR, INAE, NASI Professor, Machine Intelligence Unit, Indian Statistical Institute
- Prof. Prasanta Panda Lead Data Scientist: Machine Learning and AI, Tata Consultancy Services
- Prof. SP Daniel Chowdhury, PhD CEng (UK), Fellow IET (UK), FIE, FIETE, SMIEEE Fellow SAIEE
- Prof. Ruomei Li, PhD, SMIEEE; Chair, IEEE Power and Energy Society(PES) & Women in Power

In the inaugural session, Prof. Ljiljana Trajkovic and Prof. Akinori Nishihara, (FIEEE, IEEE Region 10 Director, 2019-2020) joined as Chief Guests and Prof. S N Singh was the Special Guest.

At the closing and awards ceremony, Prof. Noel Schulz was the Chief Guest, Prof. Bozenna Pasik-Duncan and Dr. Suresh K Nair, IEEE India Council Chair were the Special Guests. 500 participants from India, Bangladesh, USA, China, South Africa, and Japan attended the event. For details about the conference, please visit: https://wiecon- ece.org/

Revisiting Ethics of Technology

Negative Impact of Smartphone Cameras on Privacy

Yasuhisa Omura, IEEE Life Fellow (omuray@kansai-u.ac.jp)

As is well known, ethical behavior is a key goal for everyone working in the fields of science and technology. The most famous story is Einstein's regret over the development of the atomic bomb because it was used in World War II. 70 years have passed since that unfortunate historical event. In the 21st century, we make all efforts to leverage the IoT world with its 5G technology, but new risks are emerging. Governments of most countries and many companies perceive the fact that IoT will become pervasive in people's day to day lives and provide a competitive advantage. When people listen to the presentations on IoT and 5G technologies of companies, they are provided with primarily the positive results. However, various negative effects are arising in daily life, including phishing scams (spoofing mail), unlocking passwords (Bitcoin), and others.

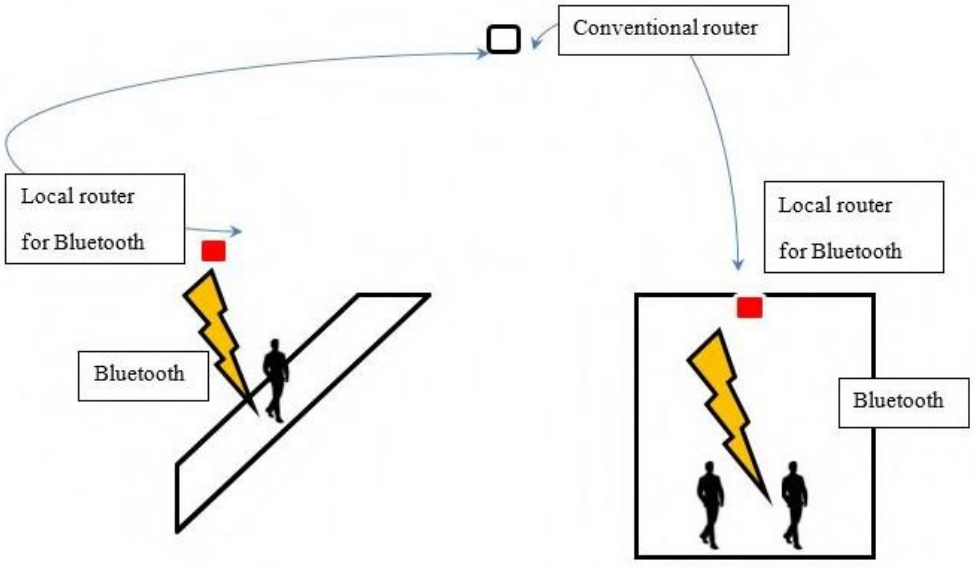
In a parallel trend, the proliferation of portable image devices continues to skyrocket. This has been achieved through continuous advances in semiconductor device technology over the last 50 years. High definition image processing is now possible due to scaled semiconductor device technology and related software technologies. Basically, this is great for us because we can enjoy beautiful video service in theaters and at home. However, the misuse of these technologies by potential criminals must be considered as the resulting image data will remain accessible through website access or saved on various media, i.e. they must be considered to have permanent existence as it is impossible, in fact, to delete them from the Internet.

The reason why I state this stems from the far too many instances of prurient images being captured by miscreants such as peep photographs or videos (photos or videos of the private parts of females (adults and children)). In some cases, the victims and/or their families are threatened with public shaming in order to extort money from the victims. It is possible to punish criminals,but the photographs and video data cannot be erased from the Internet. Therefore, in order to protect people from these moral hazards, the activation of portable device cameras should be prevented in specific places like elevators, escalators, and restrooms in public spaces.

With a view to practical implementation, I would like to propose the following.
1: Operation systems for smartphones and tablet PCs should be modified so that users cannot activate any smartphone or tablet PC cameras inside public areas of high risk such as the restrooms and elevators/escalators at train stations, airports, shopping malls, and schools. In order to implement this function, specific Bluetooth wireless routers that can deactivate the cameras must be set in areas of high risk.
2: Smartphone makers and tablet PC makers should welcome and facilitate the introduction of the above-mentioned OS modifications to secure enhanced public support.
3. Telecommunication service carriers should welcome the introduction of privacy-securing routers.

4. When the smartphone and tablet PC are not connected to any network, the modified OS should prevent the activation of any smartphone or tablet PC camera.

I would like to appeal to the engineers working with Apple, Google, and all telecommunication service companies to renew your support of ethics in engineering. It is my hope to see the successful introduction of a comprehensive privacy-securing system for the Tokyo 2020 Olympic and Paralympic Games in Japan.



IEEE Milestone Recognition – The Giant Metre Wave Radio Telescope (GMRT)

The Third IEEE Milestone Recognition of India

Harish Mysore, Sr. Director for IEEE India Operations

During the dedication ceremony, a bronze plaque commemorating the recognition of IEEE Milestone was handed over to India's National Centre for Radio Physics (NCRA) by IEEE on 30th March, 2021. The plaque was virtually unveiled by Mr. K.N. Vyas, Secretary, Department of Atomic Energy and Chairman of the Atomic Energy Commission. On this occasion, Honorable Prime Minister of India, Mr. Narendra Modi, through his letter, congratulated scientists and engineers of Giant Metre Wave Radio Telescope (GMRT) for this global recognition and recalled India's glorious tradition in astronomy dating thousands of years back and added that the GMRT is a shining example of "Atmanirbhar Bharat'' (Self Reliant India).

Milestones recognize technological innovation and excellence for the benefit of humanity. Milestone recognizes significant technical achievement that occurred at least twenty-five years ago and has a regional impact.

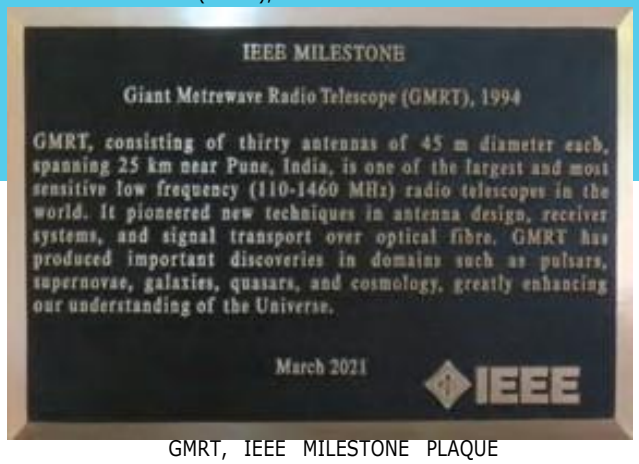
Prof. Govind Swarup, during the period 1984 to 1996, conceived and directed the design and construction of GMRT. GMRT consists of 30 large fully steerable antennas (each 45m diameter), spread out over a 25km region, about 80km from Pune in the state of Maharashtra in India. His innovative design was crucial to allow the construction of a world-class telescope at a very modest cost. The GMRT remains one of the most sensitive radio observatories in the world in the frequency range of 130 – 1450 MHz, attracting users from all over the world and producing aslew of cutting edge science results, pioneering new techniques in antenna design, receiver systems, and signal transport over optical fiber. GMRT has produced important discoveries in domains such as pulsars, supernovae, galaxies, quasars, and cosmology, greatly enhancing our understanding of the Universe. Prof. Swarupbecame was the project director of the GMRT in 1987,and when his group in Tata Institute of Fundamental Research (TIFR) became the National Centrefor Radio Astrophysics (NCRA) as part of TIFR, he became its first Centre Director in 1993. He wasa strong proponent of building up scientific capacity in the country and played an important earlyrole in conceptualizing the setting up of the Indian Institutes of Science, Education & Research (IISER).

With this recognition, GMRT became the third IEEE Milestone in India along with "First Millimetre-Wave Communication Experiment" by Acharya J. C. Bose in 1894-1896, and "Raman Effect", by Sir C. V. Raman in 1928. IEEE Pune Section Chair, while handing over the bronze plaque to NCRA Director said "It is a great honor to everyone in the section that Pune is the host for the third IEEE Milestone in India". Accepting the milestone plaque, Prof Yashwant Gupta, Director, NCRA said, "This IEEE Milestone status puts our observatory truly in a very special league and is a moment of great pride and joy for all of us at NCRA & entire scientific and technical community of India."

IEEE ED & COO, Steve Welby gave an overview, followed by an announcement by Prof. Toshio

Fukuda, President & CEO 2020 that GMRT is an IEEE Milestone and added that this recognition of GMRT Serves as a landmark of technology. Dr. Janina Mezierska, Chair for History Committee informed that there are 234 IEEE Milestones around the world and 18 awaiting dedications. GMRT, Pune is the third IEEE Milestone in India and 42nd in Region 10. Other Milestones in R10 include 38 in Japan & one in Australia. Mr. Deepak Mathur, IEEE Region 10 Director also spoke onthe occasion. He highlighted the strength of Region 10 and the contributions of India in its growth. He commented that India and other countries in Region 10 have great potential and we should expect more of such milestone recognitions in the near future.

IEEE MILESTONE: GIANT METRE WAVE RADIO TELESCOPE (GMRT), KMS FROM PUNE



GMRT, IEEE MILESTONE PLAQUE

Others who spoke on the occasion were Prof K. Vijay Raghavan, Principal Scientific Advisor to Government of India; Mr. Prakash Javadekar, Minister for Environment, Forest & Climate change, Information & Broadcasting (through a letter of appreciation); Mr. K. Ramchand, Member-Technology, Department of Telecommunications; Prof. S Ramakrishnan, Director, TIFR,; Dr. Anil Kakodkar, former Chairman of Atomic Energy Commission of India; Dr. R. A. Mashelkar, former Director General of CSIR; Prof. K Kasturi Rangan, former Chairman, Indian Space Research Organization (ISRO) and present Chancellor of Central University of Rajasthan and NIIT University, and Prof. Jayant Narlikar, noted astrophysicist and emeritus professor at Inter-University Centre for Astronomy and Astrophysics. All the speakers recognized and lauded the achievements of the GMRT, while recollecting the contributions of Prof Govind Swarup.

IEEE Indonesia Section Chair Appointed as a Member of the National of Higher Education Council 2021-2025

IEEE Indonesia Section

IEEE Indonesia Section Chair, Dr. Ing. Wahyudi Hasbi, has just been appointed as a member of the National Higher Education Council for the period of 2021-2025. This is stated in the Decree of the Director-General of Higher Education, Ministry of Education and Culture of the Republic of Indonesia Number 18/E/KPT/2021 on 17th February 2021. Based on that decree, members of the Higher Education Council are a combination of several higher ministry officials, higher education associations, state-owned enterprises, professional associations, and higher education experts who have important experiences and contributions to higher education in Indonesia. The appointment of an IEEE representative in this national council is the first time in IEEE Indonesia Section history.

The Higher Education Council is under and responsible to the Minister of Education and Culture Republic of Indonesia. This council has the task of compiling opinions, suggestions, considerations and delivering recommendations, advice, and/or thoughts in the formulation of development policy materials of higher education

to the Minister of Education and Culture through the Director-General Higher education.

This is an excellent opportunity for IEEE Indonesia Section to contribute to national development of Indonesia. Currently, IEEE Indonesia Section is in the drafting phase of an agreement in several activities related to higher education with the Directorate General of Higher Education, Ministry of Education and Culture of the Republic of Indonesia.

Wahyudi says, "IEEE Indonesia has been active in Indonesia for 33 years and with an extensive global network and experience in synergizing high-quality scientific, innovation, and professional activities, IEEE Indonesia is ready to contribute in supporting and providing input for the advancement of higher education in Indonesia."

Quarter Tech Talk Table 2.0

Ramneek Kalra, IEEE Impact Creator & Young Professional
Shailesh Prabhu, IEEE Young Professional

A group of IEEE Young Professionals & Impact Creators gathered on 13th February, 2021 (06:00PM - 07:30PM IST) to create awareness on technology and form a collaborative environment by initiating "Quarter Tech Talk Table 2.0 (QT3)" in the form of a Panel Discussion on the topic "Role of Technology in Post-COVID Preparedness".

Motivation: To create a broad collaborative group of Young Professionals and Impact Creators to share some insights on cutting-edge technologies to all technology enthusiasts by having a panel discussion. The primary motivation of QT3 comes from the IEEE Strategic Plan 2020-2025 which inspires us to conduct this event with no boundaries. This provides opportunities to volunteers who collaborated to make this event a grand success.

Objectives: The objectives of QT3 are stated below:

- Creating a broad collaboration for sharing knowledge of industrial technologies.
- Creating a bridge to connect IEEE Young Professionals through this activity for career and professional development.
- Sharing opportunities for elevating ideas using research based oriented learning.
- Creating an open forum for discussion on recent technological advancements and challenges.

Event Details: After a successful completion of the 1st edition of QT3 back in November 2020, the prominent IEEE Young Professionals and Impact Creators across the globe once again came together for a panel discussion in the second edition of QT3 held on 13 February 2021. The event panelists are listed below:

- Sampathkumar Veeraraghavan (Global Chair, IEEE Humanitarian Activities Committee, USA)
- Bozenna Pasik-Duncan (IEEE Fellow | Professor, The University of Kansas | Past Chair (2017-18), IEEE WIE, USA)
- Subodh Gajare (Lead Architect, Cisco R&D, Bangalore, India)
- Mei Lin Fung (Chair & Cofounder, People Centred Internet, USA)

Moderators:
Ramneek Kalra (IEEE Impact Creator | Project Engineer at Wipro Limited, India)
Shailesh Prabhu (Senior 5G Developer, Wipro Limited, Bangalore, India)

General Chair:
Dr. Prashant R. Nair (IEEE R10 newsletter editor & Associate Professor, Amrita Vishwa Vidyapeetham, Coimbatore, Tamil Nadu, India)

Program Co-Chairs:

- Pooja Sharma (IEEE WIE R10 Com. Member | Component Engineer, Flex India Pvt. Ltd., India)
- Wathmini Sharika (IEEE YP | Production Engineer, Central Industries PLC, Sri Lanka)
- Naveendra Jayakody (IEEE YP | Electrical Engineer, Sunleaf Solar Solutions, Sri Lanka)

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- Sachin Motwani (Social Media Lead, IEEE CS SYP Global | Newsletter Editor, IEEE SPS Delhi Chapter, India)
- S. Sonali Reddy (Vice Chair, IEEE VCE SB | Zonal Technical Chapter Representative, Warangal Zone and Student Network Representative, IEEE Hyderabad Section)

Discussed Points: Some of the key takeaways from this 2nd edition of QT3 are as listed below:
The sudden transformation to the future that was expected in the coming decades, has arrived with a lot of challenges in various fields of human importance. The pandemic is in fact an opportunity to be creative and to work with whatever is available to get things done. With the technological innovations reaching the market quicker, it is also important for the consumers to adapt better technologies sooner. The organizational achievements of IEEE and its verticals suchas SIGHT have made a positive impact in the lives of people who were resource-deprived during the pandemic.

Round 1 (Open Discussion on the Role of Technology in the Post-COVID Times): The discussion opened with the realization that the pandemic has taught everyone how to deal with unprecedented circumstances and the floor was open to insights about the new norms that would help prepare for the next pandemic. To start with, one of the panelists suggested three primary areas of focus- immediate adaptation to latest technologies, improved global connectivity, and formation of a technologically advanced ecosystem where every stakeholder equally contributes.

Another panelist pointed out that people must focus on creative and adaptive strategies to tackle situations with limited access to technologies. This demands patience, innovation, and management skills. The virtual times during COVID, helped people come closer and interact, which would have taken a lot of time, money, and efforts otherwise.

Round 2 (Panel QA Discussion): One of the panelists shared their perception that the future of every domain has occurred suddenly. Keeping it simply, what was supposed to happen gradually inmany years to come, was forced upon the world immediately. The pandemic crisis is nothing less than an opportunity, which the panelist abbreviates as the VISA model for Virtualization, Integrity, Software and Artificial Intelligence.

The next panelist shared his views on how IEEE can bring out practicality in humanitarian activities. He described that every student becomes perfect in technical fields, but industry expects a student to be an expert in both technical and non-technical domains for which IEEE SIGHT is useful to explore every domain.

Another panelist spoke about the post-pandemic era describing various fields featuring the changes like online education, work from home, marketing, socialization, technology development, milestone startups discovery, etc. which were changing the human life completely online but making them explore the technology and made them reach success even in this pandemic.

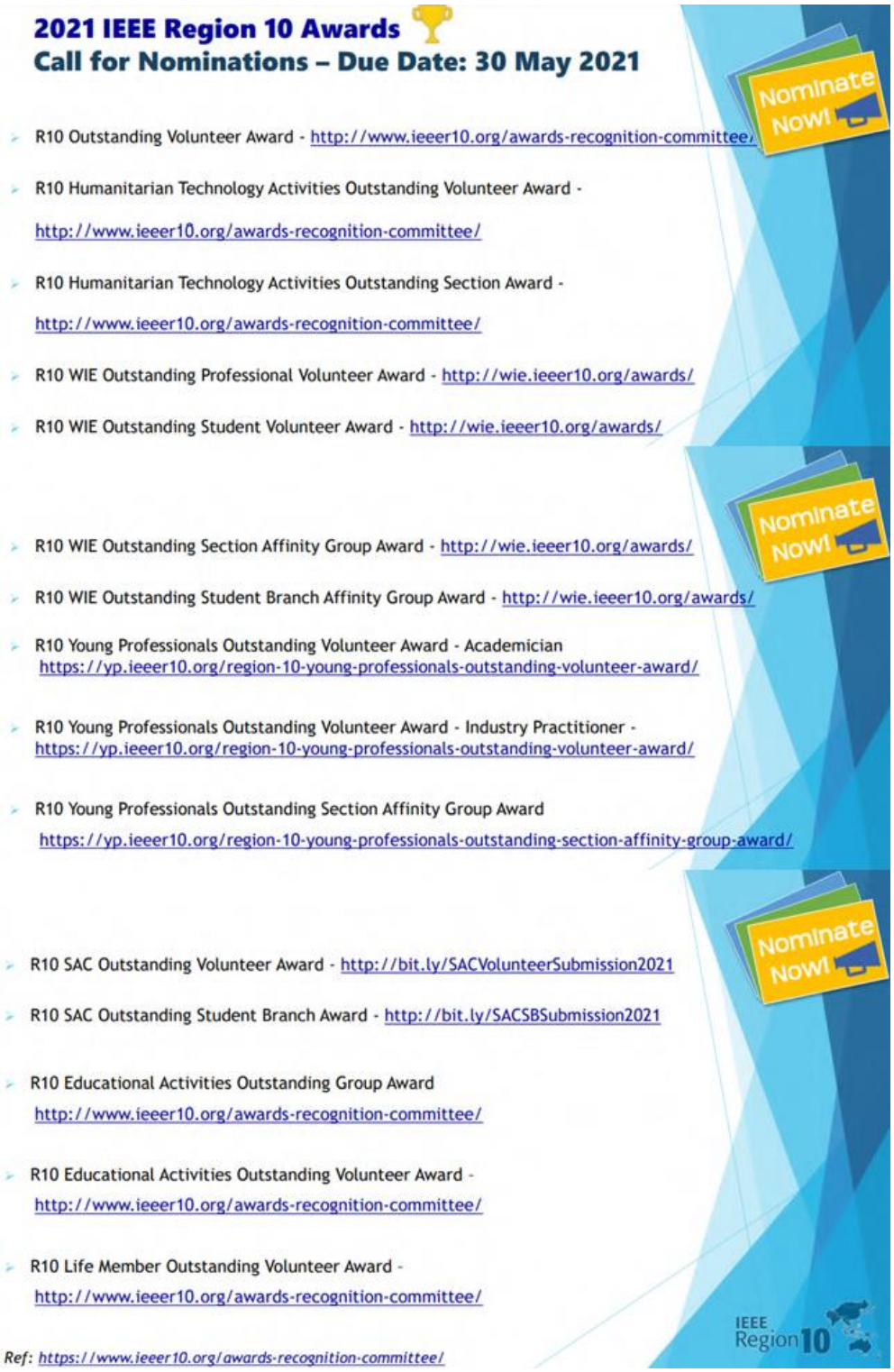
The next panelist discussed the challenging resource development of smart villages comparing these concepts with the live examples of various problems that are being faced by the people in the rural areas. The next panelist gave the best insights on the financial status of the various departments and the utility of money in Global Public Utility for SME Finances, Community Finances, Education, etc.

"Ask the Panellist": Under this last section, the "Quarter Tech Talk Table 2.0 (QT3)" in the form of a panel discussion on the topic "Role of Technology in Post-COVID Preparedness" was open to the virtual delegates for the Q&A session. They were informative and worth seeking inputs from everyone.

With the ending of this QT3 2.0, the General Chair put together the thank remarks and shared the tentative next QT3 3.0 Schedule: 8th May 2021 (7:00 PM - 8:30 PM IST). We welcome all the readers to register for QT3 3.0 edition at: https://forms.gle/x2ost6UqqBGiqtxJ6.

9. AWARDS & FUNDING

IEEE Region 10 Awards



IEEE R10 Student Research Paper Contest

IEEE R10 MDC Project

IEEE R10 HTA Oriented Project Enabler

IEEE R10 HTA Highlights Video Contest

IEEE R10 YP REVOL 2021

IEEE Region10 Young Professionals Committee glad to announce the Call for Nomination for "IEEE Region 10 Young Professionals REVOL 2021 Program" aims to identify vibrant volunteers (who are student members in their final year of undergraduate studies or graduate student members or Young Professionals of their first-year membership) across IEEE Region 10.

IEEE R10 YP REVOL 2021 Timeline:

- Last date for nomination Deadline: 30th May 2021
- Winner Announcement: July 2021
- For more details and submission please visit here: https://yp.ieeer10.org/ieee-r10-young-professionals-revol-2021/

IEEE MGA Outstanding Section and Friend of IEEE MGA

- To learn more about the MGA Outstanding Section Awards : https://mga.ieee.org/awards/mga-awards-and-recognition-program/mga-outstanding-section-awards
- To nominate your Section for the MGA Outstanding Section Award, please: https://ieee.secure-platform.com/a/solicitations/478/home
- To learn more about the Friend of IEEE MGA Awards: https://mga.ieee.org/awards/supporting-and-sustaining-friend-of-ieee-member-and
- To submit a nomination for the Friend of IEEE MGA Award : https://ieee.secure-platform.com/a/solicitations/479/home
- For questions, contact mga-awards@ieee.org

IEEE Award for Distinguished Ethical Practices

IEEE Award for Distinguished Ethical Practices

Sponsored by: IEEE Ethics & Member Conduct Committee (EMCC)

Nomination deadline: 1st July 2021

Call for Nomination*

The IEEE Award for Distinguished Ethical Practices recognizes an IEEE member or an organization employing IEEE members for:

(a) exemplary ethical behavior/practices and/or
(b) persuasive advocacy or promotion of ethical behavior/practices.

Basis for judging and selection

Evidence of: (a) exemplary ethical behavior/practices or (b) persuasive advocacy of ethical behavior/practices should reflect the relationships of that behavior or those practices to the IEEE Code of Ethics.

Eligibility

- Members of the IEEE and organizations that employ IEEE members are eligible.
- There are no restrictions as to IEEE membership grade, gender, or age.
- Members of the IEEE Ethics and Member Conduct Committee and its Awards and Recognition Committee are not eligible.
- As per IEEE Policy 4.4.H, no person shall receive an award, who, at any stage of the recipient-selection process for that award, is eligible to vote on who shall receive that award. Nor may they be the nominator or reference for a nomination of a candidate for such award. This conflict of interest limitation shall apply to all awards given by the IEEE or any of its organizational units.

For more information, please refer to: https://www.ieee.org/about/ethics/award.html

Nomination form can be completed online via https://www.ieee.org/about/ethics/nomination-form.html.

Do consider to nominate and support a candidate for this award!

IEEE Student Ethics Competition

IEEE Student Ethics Competition

Sponsored by: IEEE Ethics & Member Conduct Committee (EMCC)

It was developed for use at IEEE Regional student events to encourage the study and awareness of professional ethics by IEEE Student Members. The contest includes a presentation and defense of a case analysis by teams of students.

Specific objectives of the contest program are:

1) to foster familiarity with the IEEE Code of Ethics and ethical concepts;
2) to promote a model for discussing and analyzing ethical questions;
3) to provide experience in applying ethical concepts to typical professional situations.

EMCC can provide financial support up to 10 annual SECs organized by Student Branches (SBs).

IEEE EMCC funding is $ 300, when a single SB is involved, $ 600 when two or more SBs participate and $ 800 when there are teams of participants.

It would be fantastic that Ethics Competitions be included in the annual Student Branches (SB) activities program.

Information on this competition is available in https://www.ieee.org/about/ethics/competition.html

Under the current circumstances, the EMCC will also support virtual SECs.

IEEE EAB Awards

IEEE YESIST12: Call for Pilots

IEEE YESIST12 2021 Junior Einstein Track: IEEE YESIST12 (YOUTH ENDEAVOURS FOR SOCIAL INNOVATION USING SUSTAINABLE TECHNOLOGY) (SS12) is a platform for the students and young professionals to showcase their fresh pristine ideas to find the key to humanitarian and social issues affecting directly the community around them. Junior Einstein Track acts as a catalyst for innovation and provides a transformative opportunity to broaden the horizon of knowledge among the young curious minds. This initiative aims at empowering the next generation innovators, nurture their ideas and increase their thirst towards finding solution to various social issues. This event makes effort to harness the creative submissions and innovative spirit towards scientific and technological ideas/innovations from the school students of age 12 to 17 and to get rooted as one of the foremost project competitions in the global arena developing a robust scientific temper among the youth.

Roles and Responsibilities of Pilots:

- Any member from IEEE Region/section/SB/AG/chapter can act as a pilot.
- Publicising the event in their Region/section/SB/AG/chapter.
- Need to organize a prelim for the participants in their Region/section/SB/AG/chapter. (Includes publicity, call for projects, scrutiny & selection of teams, conducting the preliminary competition either online or physical depends on the situation, issuing the prizes and certificates to the teams)
- Nominating the potential teams to the finale.
- Reporting to the IEEE YESIST12 JE steering committee.

Exciting Prizes:

- For students: Cash Prizes will be awarded at the finale based on the recommendation and acceptance by jury, track chair, and general chair.
- For Pilots: Best Pilot Award will be given to the proactive pilot.

10. CALL FOR PAPERS

IEEE Region 10 Symposium (TENSYMP) 2021

IEEE Region 10 Humanitarian Technology Conference (R10HTC) 2021

IEEE REGION 10 HUMANITARIAN TECHNOLOGY CONFERENCE (R10 HTC)

Theme: Reverse Innovation for Humanitarian Technology Solutions using STEM (Science, Technology, Engineering and Management)

BENGALURU **30 Sept to 2 Oct 2021**

Call for Papers

Advisory Committee
Deepak Mathur, R10 Director
Debabrata Das, Chair-Elect, India Council
Keshav Bapat, Keysight Technologies
Puneet Mishra, ISRO

Organising Committee
General Chair: Bindhu Madhava B S, CDAC
General Co-Chair: P Deepa Shenoy, UVCE
Organising Chairs: Rajashekhar S, OSI; Abhishek Appaji, BMSCE
Technical Program Chairs: Chandrakanta Kumar, ISRO; Javed G S, Intel
Publication Chairs: Muralidhara V, IIIT B; Kumudhini R, Inytu Inc
Program Chairs: Jing Dong, NLPR, China; Divya M G, CDAC; Samarth B
Finance & Sponsorship Chairs: Prasant Mishra, TCS; Aditi Chhabra, Delhi Section
Local Arrangement Chairs: Raghavendra Prasad, RVCE
Registration Chair: Shrikant Tangade, REVA University
Web and Technical Management Chair: Chengappa M R, HPE; Ketan Keshav, KreeditBee
India Council Liason: Sadhana A, VITM
Poster Session Chair: Ashwini AM, Holy Child
YP Session Chair: Gitansh Anand, Xiomi
WIE Session Chair: Anandi Giridharan, IISc
Student Track Chair: Sujatha D N, BMSCE

IMPORTANT DATES:

Paper submission starts on :	15 Mar, 2021
Deadline for submission of papers:	15 June 2021
Notification of acceptance:	15 July, 2021
Review of paper starts:	As & when papers are submitted.

Submission Link: https://cmt3.research.microsoft.com/R10HTC2021/

EARLY SUBMISSION ADVANTAGE:
Authors get discounts on registration fees when submitted early. This discount is available in all categories of authorship.

Paper Submission Date	Discount on Registration Fee (Early Bird & Regular)
Till Apr 2, 2021	30%
Till May 15, 2021	10%

Early Bird Registration: Till July 30, 2021
Advance registration is a must for presentation of the paper

Best Paper Award for each track*
*More details available on the website

The conference will be held in hybrid mode (in-person and virtual) to accommodate global participation.

TRACKS

Track 1: Technologies and Innovations related to COVID-19 / Fight against epidemics and pandemics
Track 2: Biomedical Engineering for Good Health and Wellness
Track 3: Agriculture and Food Security
Track 4: Energy and Clean Technologies
Track 5: Clean Water and Sanitation
Track 6: Plastic use Reduction and Waste Management
Track 7: Sustainable Villages / Cities and Communities / Traffic Systems.
Track 8: Quality Education NEP focus/ ICT
Track 9: Economic Growth – Diversity, Inclusion & Equity
Track 10: Climate Action and Environment / Green Buildings
Track 11: Disaster Mitigation, Preparedness, Response and Recovery
Track 12: Industry 4.0 and Infrastructure
Track 13: Communication and Connectivity for Sustainable Development
Track 14: Special WiE Track – Papers with at least one author being women can be submitted in WiE Track.
Track 15: Special Young Professionals (YP) Track
Track 16: Special Student Track

Category	Early Bird (INR)	Early Bird (USD)	Regular (INR)	Regular (USD)
AUTHORS				
IEEE Student Member	6000	80	7000	95
Non-IEEE Student Member	7500	100	8500	115
IEEE Member	8000	110	9000	120
Non-IEEE Member	9500	125	10500	140
ATTENDEES				
IEEE Student Member	3750	50	4500	60
Non-IEEE Student Member	4500	60	5500	75
IEEE Member	5250	70	6000	80
Non-IEEE Member	6750	90	7500	100

The registration fee includes GST but NOT payment gateway charges

https://attend.ieee.org/r10htc-2021/

IEEE REGION 10
NEWSLETTER

IEEE REGION 10 CONNECT 2021

APRIL EDITION

IEEE REGION 10 NEWSLETTER

IEEE