

January 2020 Issue  
IEEE R10 Newsletter

# IEEE R10 TODAY

***[This page intentionally left blank]***

# CONTENTS

<b>WELCOMING MESSAGES .....</b>	<b>5</b>
MESSAGE FROM IEEE REGION 10 DIRECTOR .....	5
MESSAGE FROM IEEE R10 NEWSLETTER COORDINATOR.....	6
UPDATES/CORRECTION TO THE OCTOBER 2019 NEWSLETTER.....	7
<b>1. SPECIAL REPORTS ON IEEE R10 FLAGSHIP CONFERENCES .....</b>	<b>9</b>
2019 IEEE REGION 10 CONFERENCE (TENCON2019) .....	9
2019 IEEE REGION 10 HUMANITARIAN TECHNOLOGY CONFERENCE (R10HTC2019).....	16
<b>2. R10 PERSONALITIES OF THE MONTH .....</b>	<b>22</b>
R10 PERSONALITY OF THE MONTH – SUBHAS CHANDRA MUKHOPADHYAY .....	22
R10 WIE PERSONALITY OF THE MONTH – ZUHAINA ZAKARIA .....	24
R10 LIFE MEMBER OF THE MONTH – PROF. KYUN H. TCHAH .....	25
R10 STUDENT PERSONALITY OF THE MONTH – MISBAH HASSAN ABBASI .....	26
<b>3. R10 ORGANIZATIONAL UNITS OF THE MONTH .....</b>	<b>28</b>
R10 LARGE SECTION OF THE MONTH – VICTORIA SECTION .....	28
R10 MEDIUM SECTION OF THE MONTH – SENDAI SECTION .....	30
R10 SMALL SECTION OF THE MONTH – REPUBLIC OF PHILIPPINES SECTION.....	31
R10 SUBSECTION OF THE MONTH – BAHAWALPUR SUBSECTION.....	32
R10 STUDENT BRANCH OF THE MONTH – NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA (NITK) STUDENT BRANCH, INDIA .....	34
<b>4. IEEE DAY 2019 CELEBRATIONS ACROSS R10.....</b>	<b>36</b>
<b>5. R10 EXCOMM ARTICLES.....</b>	<b>43</b>
R10 SECTION INCENTIVES 2019.....	43
SPECIAL INDUSTRY TRACK AT IEEE TENCON 2019 .....	45
WIE TRACK AT IEEE TENCON 2019 .....	49
WIE TRACK AT IEEE R10HTC 2019.....	50
PACE WORKSHOP AT IEEE R10HTC 2019 .....	51
LM TRACK AT AISYWC 2019 IN HYDERABAD, INDIA .....	53
WIE INTERNATIONAL LEADERSHIP SUMMIT 2019 - ISLAMABAD .....	55
R10 SAC OPERATIONS MANUAL.....	56
R10 SAC JOINT SB FUND .....	57
R10 SAC LEADERSHIP TRAINING & MEMBERSHIP DEVELOPMENT FUND .....	60
<b>6. OTHER ARTICLES.....</b>	<b>63</b>
INTERVIEW WITH AKINORI NISHIHARA.....	63
INTERVIEW WITH DEEPAK MATHUR .....	66
INTERVIEW WITH DEJAN MILOJICIC.....	68
INTERVIEW WITH STEPHEN WELBY .....	71
2019 INTERNATIONAL CONFERENCE ON COMPUTING, POWER AND COMMUNICATION TECHNOLOGIES (GUCON 2019).....	74
2019 INTERNATIONAL CONFERENCE ON RECENT DEVELOPMENTS IN CONTROL AUTOMATION AND POWER ENGINEERING (RDCAPE 2019) ..	76
TECHNICAL COLUMN – IEEE REGION 10 POSTGRADUATE RESEARCH PAPER CONTEST 2 <sup>ND</sup> PRIZE WINNER .....	77
TECHNICAL COLUMN – IEEE REGION 10 POSTGRADUATE RESEARCH PAPER CONTEST 3 <sup>RD</sup> PRIZE WINNER.....	78
<b>7. ORGANIZATIONAL UNITS ACTIVITIES.....</b>	<b>80</b>
KARACHI SECTION .....	80
MALAYSIA SECTION .....	81
KANSAI SECTION.....	82
SENDAI SECTION .....	83
JAPAN COUNCIL.....	85
ISLAMABAD SECTION .....	85
HYDERABAD SECTION .....	88

<b>8. AWARDS AND FUNDING .....</b>	<b>90</b>
REGION 10 NEWLY ELEVATED FELLOW CLASS OF 2020.....	90
IEEE DARREL CHONG STUDENT ACTIVITY AWARDS .....	92
IEEE OUTSTANDING BRANCH COUNSELOR AND CHAPTER ADVISOR AWARD.....	93
LARRY K WILSON REGIONAL STUDENT VOLUNTEER AWARD 2019 .....	94
IEEE GLOBAL STUDENT BRANCH WEBSITE CONTEST 2019 .....	95
IEEE EDUCATIONAL ACTIVITIES BOARD (EAB) AWARD RECIPIENTS 2019.....	96
<b>CONFERENCE CALL FOR PAPERS .....</b>	<b>98</b>

## WELCOMING MESSAGES

### Message from IEEE Region 10 Director



Dear all IEEE Region 10 Members,

Happy New Year!

It is my great honor and privilege to serve Region 10 in 2020 – which will be my second year as Director. I'd thus like to take this opportunity to express my appreciation and extend my very best wishes to all the volunteers who have been working hard and plan to continue their efforts - or start new initiatives - in the New Year on behalf of Region 10 and IEEE.

This year 2020 is special for Region 10: We have Toshio Fukuda as IEEE President from Region 10, the first time in the history of our organization. Both Kukjin Chun, Vice President for Member and Geographic Activities, and Kazuhiro Kosuge, Vice President for Technical Activities, are also from Region 10. Division VIII Director Elizabeth Burd and I will serve on the Board of Directors for the second year. So there are now 5 members in total from Region 10 on the Board of Directors. This number looks big, but it is really not sufficient given that Region 10 comprises 25% of the total voting members of IEEE. In fact, this is one of the reasons why we have been mooting a region realignment. The discussion will continue this year aimed at improving diversity among the Board of Directors.

Region 10 is the only Region in IEEE showing a steady growth in membership and counts more than 135,000 members by the end of 2019, or nearly 32% of the entire membership of IEEE. We have 58 Sections and 6 Councils in Asia and Pacific along with:

- 35 Subsections
- 46 YP Affinity Groups
- 44 WIE Affinity Groups
- 14 Life Members Affinity Groups
- 697 Chapters, and
- 1,600 Student Branches.

I hope these Organizational Units will collaborate ever more closely in order to deliver better services and value to our members. There are also 5 IEEE offices: in Singapore, Beijing, Bangalore, Tokyo and Shenzhen to assist IEEE members in all sorts of ways.

We are most proud of the fact that the number of IEEE Fellows in Region 10 has swelled from a mere 18 Fellows (out of 2,759 IEEE Fellows worldwide) in 1967 to a present count of 1,244 Fellows (out of 7,752 IEEE Fellows), as well as 39 IEEE Medals, 28 Recognitions, and more than 100 Technical Field Awards. Thanks to the diversity of Region 10, an opportunity is available for us to be recognized by IEEE/MGA committees by technically and socially contributing to our society. I encourage all of you to engage yourself in various IEEE activities at local and global levels.

I look forward to your continued strong support and hope for a wonderful and flourishing 2020 for the entire Region 10 of IEEE.

Sincerely,

Akinori Nishihara  
Region 10 Director



## Message from IEEE R10 Newsletter Coordinator



Dear Region 10 Members,

Happy New Year! It is my pleasure to welcome you to the first edition of IEEE Region 10 Newsletter for 2020. This edition features two special articles on the recently concluded IEEE TENCON 2019 and IEEE R10HTC 2019 conferences.

The newsletter also continues the *Personalities of the Month* and *Organizational Units of the Month* columns introduced for the first time in the July edition. We have another four Region 10 personalities as well as five Region 10 organizational units who have kindly agreed to contribute for the column. For the first time, our *Personalities of the Month* column will feature the *Life Member of the Month*, Prof. Kyun H. Tchah from Seoul Section. I am very grateful for Prof. Tchah as well as the other invited personalities and units for giving the newsletter team tremendous support with their high-quality articles. I hope to continue receiving similar supports from other members and units when we approach them for future editions.

Besides the personalities and units of the month, we have also received around 25 activity submissions from various organizational units. We would like to thank all these units for their contribution to this newsletter. For this issue, we also created a special section to showcase IEEE Day events celebrated throughout the region. During his attendance at TENCON2019, our committee member, Prof. Prashant R. Nair has also managed to interview four IEEE top management personnel who were also in attendance at the conference. The four personnel are the R10 Director, Akinori Nishihara, the R10 Director-Elect, Deepak Mathur, former IEEE Computer Society President and IEEE Presidential candidate, Dejan Milojicic, and IEEE COO and Executive Director, Stephen Welby. Do check out their entertaining and rich interviews in Section 6 of the newsletter.

Finally, this edition also features two of the four winners of the 2019 R10 SAC Postgraduate Paper Contest, where they share their research work and ideas. I would also like to thank the R10 Committee Chairs for providing updates on their committee's activities through the newsletter. A special thanks also to all the R10 newsletter committee members for their incredible efforts in preparing this third edition. And thanks again all of you for your support. Wishing you for a very exciting 2020 ahead.

Mohammad Faizal Ahmad Fauzi  
Chair, IEEE R10 Newsletter Committee

## Updates/Correction to the October 2019 Newsletter

### Errata – ICISGT 2019

There have been some mistakes in the article submitted by Hyderabad Section on 2019 IEEE International Conference on Intelligent Systems and Green Tech (ICISGT-2019). The corrected article is published again in Section 7: Organizational Units Activities in this issue.

### Updates – 2019 Region 10 Awards Recipients

The following is a brief biography of Prof. Celia Shahnaz, winner of the R10 HAC Outstanding Volunteer Award, whose biography was missing from the special column on R10 award winners in the October issue due to unavoidable circumstances.

## R10 HAC Outstanding Volunteer Award

### **Celia Shahnaz - in recognition of outstanding contribution and services for humanitarian technology activities to the IEEE Bangladesh Section**



Celia Shahnaz received Ph.D. degree in ECE from Concordia University, Canada. Currently she is serving as a Professor in the Department of EEE, BUET, from where she received her B.Sc. and M.Sc. degrees. She is a senior member of IEEE, a fellow of IEB and has published more than 120 international journal/conference papers. She was a recipient of the Canadian Commonwealth Scholarship, as well as the Bangladesh Academy of Science Gold Medal. She was R10 WIE Coordinator and currently serving as Bangladesh Section Chair. She is the founder of SIGHT FLASH and five conferences, General Co-Chair of R10-HTC 2017 and General Chair of TENSYP 2020.

# **SPECIAL REPORTS ON IEEE R10 FLAGSHIP CONFERENCES**



# 1. SPECIAL REPORTS ON IEEE R10 FLAGSHIP CONFERENCES

## 2019 IEEE REGION 10 CONFERENCE (TENCON2019)

17<sup>th</sup> to 20<sup>th</sup> October 2019, Grand Hyatt Kochi Bolgatty, Kochi, Kerala, India

Written by Prashant R. Nair, Member of R10 Newsletter Committee



IEEE TENCON 2019, the flagship conference of IEEE Region 10 was organized by IEEE Kerala section from 17<sup>th</sup> to 20<sup>th</sup> October 2019 at Grand Hyatt Kochi Bolgatty, Kochi, Kerala, India. This premier conference was attended by 750+ delegates from 20 countries in the Asia-Pacific region. IEEE Region 10 is the powerhouse region of IEEE with 130,000+ members, 58 sections, 35 sub-sections and 6 councils. TENCON conference started in 1980 in Hong Kong and since 1991 has emerged as the flagship event of IEEE Region 10.

Since 1975, when IEEE activities commenced in Kerala, also popularly known as God's own country, the IEEE Kerala section has moved from strength to strength with 9000+ members, 80+ Student Branches, 4 Affinity Groups, 13 society chapters and winner of R10 Outstanding Large Section award in 2004, 2009 and 2019. The theme for TENCON 2019 was Technology, Knowledge, and Society. With more than 56 technical sessions, the conference brought together researchers, educators, students, industry practitioners, technocrats and policymakers from across academia, government, industry and non-governmental organizations to discuss, share and promote cutting-edge research and recent accomplishments across all aspects of its theme.



The title sponsor for the conference was Nissan Digital. Other sponsors and patrons include Cisco, National Instruments, UST Global, Kerala State IT & Startup Missions, InApp, Oracle Academy, Cochin Shipyard and Defense Research & Development Organization (DRDO) of Government of India.

## **INAUGURAL CEREMONY**

IEEE TENCON 2019, the 4-day International conference of IEEE Region 10, was inaugurated by Honorable Governor of Kerala, Mr. Arif Mohammed Khan on Friday, 18th October. Dr. Akinori Nishihara, Director, IEEE Region 10 presided over the function and Mr. Stephen Welby, Executive Director and COO, IEEE offered felicitations. Dr. Suresh Nair, General Chair, TENCON, welcomed the gathering and Dr. Sameer S.M., Chair Kerala Section proposed the vote of thanks.



In his welcome address, Dr. Suresh Nair highlighted the outstanding efforts of the volunteers of IEEE Kerala Section during the floods that ravaged the state of Kerala in 2018. The helpline portal developed by the IEEE Kerala section volunteers was selected as the official portal for flood relief by the Government of Kerala. The chief guest and first citizen of Kerala, Governor Mr. Arif Mohammed Khan in his inaugural address complimented the Kerala section for hosting this international conclave, which was happening in India for the second time after Hyderabad Section hosted it in 2008. He exhorted technocrats and scientists to develop environment and people-friendly technologies that are available and affordable to the common man. These new technologies must be in synergy with the goal of sustainable development and clean and healthy future. Underlining the profound effect of technology in all aspects of human life, he said that development and use of technology has to be rooted in moral commitment. From the social point of view, technology has to be guided by a level of moral and entrepreneurial thinking.



Dr. Akinori Nishihara also applauded the efforts of IEEE Kerala Section and congratulated the section for the several R10 awards they have been receiving. He traced the evolution of the TENCON conference from the first edition in Hong Kong in 1980. Tracks like special industry track, WIE track and HAC have added tremendous value to

the conference. Mr. Stephen Welby described the outstanding impact and reach of IEEE worldwide as the world's largest organization of technical professionals with members in 160 countries. He highlighted the partnerships that IEEE was building in India with organizations like Bureau of Indian Standards (BIS), Smart Grid Forum and Telecom Sector Skill Council. After the inaugural session, the honorable governor visited the expo and interacted with participants.



## **KEYNOTE ADDRESSES**

IEEE TENCON 2019 saw 6 cutting-edge keynote addresses by leaders from industry and academia. The keynote addresses were:

- *Sustainability with Digital Transformation* by Mr. Tony Thomas, CVP & CIO Nissan Motor Corporation
- *Stretching Moore's law: System Software for hybrid accelerator for Deep Learning* by Dr. Dejan Milojevic, Distinguished technologist from Hewlett Packard,
- *Machine Intelligence learning for Agent-embedded Robots* by Dr. John-Hwan Kim, Professor, School of Electrical Engineering, KAIST,
- *Brain Machine Interface System: Overview, Research, Challenges and Applications* by Dr. Vinod A. Prasad, Professor & Dean, IIT Palakkad,
- *Neural Prosthesis for Amputees and Spinal Injury Patients* by Dr. V John Mathews, Professor, School of Electrical Engineering and Computer Science, Oregon State University, USA
- *Connected Cars in Mobility Revolution* by Mr. Bruno Grippy, Regional Director, Connected Cars and Intelligent Mobility, Nissan.



## **PAPER PRESENTATION SESSIONS**

The conference Technical Program Committee under Prof. Lillykutty Jacob reviewed a total of 1402 papers from 25 countries for the 10 regular tracks and 25 special sessions. After three rounds of blind review process, track chairs and the special session chairs selected 687 papers for presentation. More than 500 papers were presented during the conference in the following tracks:

- *Track 1: Data Science & Engineering*
- *Track 2: Computing Technologies*
- *Track 3: Computational Intelligence*
- *Track 4: Communication & Networking*
- *Track 5: Signal & Image Processing*
- *Track 6: RF Circuits, Systems and Antennas*
- *Track 7: Devices, Circuits, Materials and Processing*
- *Track 8: Power, Energy and Power Electronics*
- *Track 9: Robotics, Control, Instrumentation and Automation*
- *Track 10: Biomedical Engineering and Healthcare Technologies*

Track and session chairs for the conference were drawn from leading institutions and industries like National University of Singapore; Melbourne Institute of Technology; Technical University of Denmark; Ngee Ann Polytechnic, Singapore; Kyungshung University, Korea; Jackson Labs, USA; Indian Institute of Technology (IIT) Madras; Indian Institute of Information Technology (IIIT) Hyderabad; IIT Kanpur; IIT Hyderabad; UCSI University, Malaysia; UST Global etc.

## **SPECIAL INDUSTRY TRACK**



The Special Industry Track of IEEE TENCON 2019 emerged as one of the highlights of the conference with 2 keynotes, 3 technical sessions and 1 panel discussion. The event started with a session chaired by Dr. Chris Gwo Giun Lee, Chair, IEEE R10 Industry Relations Committee. The keynote was on

*Intelligent System Design* by Mr. Jaswinder Ahuja, Managing Director, Cadence India. This was followed by another keynote on *Cognitive & Cloud Computing for Industry 4.0* by Dr. Gopal Pingali, Vice President, IBM India.

The second session was chaired by Dr. Nirmal Nair, R10 Professional Activities Committee (PAC) Chair and Associate Professor, University of Auckland. Dr. Amit Kumar, CEO, BioAxis spoke on the dangers of a possible bio-hacking, where criminals can hack into the DNA, producing unknown misery to humans, including spoofing, and bio-identity threats! The next speaker was Dr. Kush Agarwal from Singapore, who examined the approaches used for evaluating and testing structures using radar and millimeter wave technologies.

The afternoon session was chaired by Mr. Harish Mysore, Head, IEEE India Office. This session saw many aspects of the progress in e-Mobility. The first speaker Mr. Allabaksh Naikodi, the research lead



of Electric Vehicles of Mahindra Electric in India. The next speaker, Dr. V.V. Chandrasekar, CDAC and Dr. Ananth Krishna spoke on the current and future directions of Electric Batteries. The Nissan Digital sponsored session on Cyber Security was a panel discussion moderated by Mr. Tarun Kumar, Chief Information Security Officer, Nissan Digital India. Mr. Atul Gupta, KPMG; Mr. Rohit Anand, Tanisi and Mr. Vikas Kapoor, Vodafone were the other panelists.

The last session was a panel discussion on Industries and entrepreneurship moderated by Mrs. Sarada Jayakrishnan, DGM, Terumo Penpol and Vice-Chairperson, IEEE Kerala Section. Panelists were young start-up founders, Mr. Jijo G John, CEO, Calpine Group, Kochi; Mr. Kush Agarwal, CEO, Wavescan, Singapore and Ms. Shalini James, Mantra, Kochi. They shared their experiences and challenges of starting an industry unit and successfully running it. For the participants of Special Industry Track, a tour to the Maker Village was organized on 20<sup>th</sup> October 2019. Dr. Takako Hashimoto, Dr. Nirmal Nair, Mr. Kush Agarwal and student delegates from Japan joined the visit. Mr. Prasad Balakrishnan, CEO, Maker Village presented the facilities and services provided for electronics start-ups for productizing their ideas. 30 participating companies demonstrated their products to the IEEE delegation. Full report on the Special Industry Track at TENCON2019 is available in Section 5 of the newsletter.

### **HUMANITARIAN ACTIVITY COMMITTEE (HAC) TRACK**

IEEE TENCON 2019 provided a special platform, the Humanitarian Activities Track on 20<sup>th</sup> October 2019, for discussing humanitarian activities within the context of IEEE. The track, sponsored by IEEE Humanitarian Activities Committee (HAC) and TENCON 2019, provided opportunities for experts, practitioners, IEEE members, students, Young Professionals, NGOs and community representatives to share their experiences and discuss the challenges and opportunities in the domain of humanitarian activities.



The track was scheduled in two sessions with invited talks and panel discussions, in addition to presentations of shortlisted papers. The forenoon session on *Making Science Accessible to Students with Disabilities* started with a keynote talk on *Accessible Science in the age of the open web* by Prof Volker Sorge, University of Birmingham. He illustrated his points with particular examples from mathematics and data science, concentrating on accessible equations and data visualizations. Prof.

V.K. Damodaran then led a panel discussion on *Science Accessible to Students with Disabilities*. The panelists were Prof Volker Sorge, Mr. Ramkamal from Chakshumathi and Dr. K.G. Satheesh Kumar from National Institute of Speech and Hearing (NISH). After the panel discussion, there was a paper session with four papers. The session was chaired by Dr. Akila Surendran and had papers relating to *User-Centric Assistive Technologies*.

The afternoon session started with a presentation on the *Social Return on Investment* and *Project - Techno Unnati*, which was one of the initial places that IEEE HAC was testing it out. The session was chaired by Mr. Satish Babu and the speakers included Prof. VK Damodaran a life member from Kerala Section along with Dr. Mini Ulanat and Dr. Bijoy Jose of Cochin University of Science & Technology

(CUSAT). The second session in the afternoon was a panel discussion on *The Role of Technology in Disaster Management* moderated by Mr. Satish Babu and had a galaxy of very notable participants in the Disaster Management Sector as follows:

- Dr. Sekhar Lukose Kuriakose, *Kerala State Disaster Management Association*
- Mrs. Annie George & Dr. Joe John George, *UNDP*
- Mr. Viekanandan, *FishMARC NGO*
- Mr. Vincent Jain, *SIFFS*
- Mr. Sajith Sukumaran, *Kudumbashree NRO*
- Dr. Arun Timalisina, *TU Nepal*
- Mr. K.G. Girish Babu

This was followed by a session chaired by Mr. Amarnath Raja in which Dr. Hussain Mehdi, IEEE Malaysia Section and Dr. Chanakya Kumar, IEEE Pune Section, outlined the work of HAC and SIGHT and spoke of how to participate in the HAC activities and the sources of funding. The website, [www.keralarescue.in](http://www.keralarescue.in) was showcased in the session. The last session was a paper presentation session which was chaired by Dr. KG Satheesh Kumar of National Institute of Speech and Hearing (NISH) with the theme of *Humanitarian Technologies for Sustainable Development*.

### **WOMEN IN ENGINEERING (WIE) TRACK**



The WIE Track was held on 19<sup>th</sup> October 2019. The track showcased the success story of outstanding amazing women leaders such as Mrs. Mary Ellen Randal, IEEE Fellow, IEEE. She took us through her career advancement and IEEE role in her progression, as well as how MOVE mobile vehicle for disaster management community outreach program was conceptualized. Then, Ms. Prema Sankar, an engineer by education turned wellness expert took a workshop on *Meet Your Future Self*. The participants felt energized, fresh and motivated and got insights to attain inner peace and increase one's well-being. Full report on the WIE Track at

TENCON2019 is available in Section 5 of the newsletter.

### **TUTORIALS**

TENCON 2019 commenced with 5 pre-conference tutorials on 17<sup>th</sup> October 2019. These tutorials were of 3 hours each included hands-on sessions for the benefit of the members. The tutorials were:

- *Physically Unclonable Functions: Design, Applications & Threats* by Dr. Rajat Subhra Chakraborty (IIT Kharagpur), Dr. Jimson Mathew (IIT Patna) and Mr. Pranesh Santikellur (IIT Kharagpur)
- *Preparing Students for 21st Century System Design Challenges & Solutions using NI Platform* by Mr. Visweswaran Jagadeesan and Mr. Nilutpal Choudhury (National Instruments)
- *When IoT Meets Machine Learning: Opportunities and Challenges* by Mr. Sanjay Srivastava (Dhirubhai Ambani Institute of Information and Communication Technology) and Mr. Manish Chaturvedi (Pandit Deendayal Petroleum University (PDPU), Gandhinagar)
- *Deep Learning with MATLAB* by Mr. Amit Kamath (Mathworks)
- *Malware Analysis* by Mr. Hemant Rathore (Birla Institute of Technology and Science, Pilani, K K Birla Goa Campus) and Mr. Ashu Sharma (Mindtree)



## **2019 IEEE RECENT ADVANCES IN GEOSCIENCE AND REMOTE SENSING: TECHNOLOGIES STANDARDS AND APPLICATIONS (TENGARSS 2019)**

In association with the IEEE Geoscience and Remote Sensing Society, IEEE Antennas and Propagation Society and IEEE Kerala Section organized the 2019 IEEE Geoscience and Remote Sensing Conference (TENGARSS 2019), a premier Geoscience and Remote Sensing Conference as a co-located event from 17<sup>th</sup> to 20<sup>th</sup> October 2019. The main theme of the conference was advancing technologies, standards and



applications in Geoscience and Remote Sensing. TENGARSS 2019 was a unique initiative of IEEE GRSS society and IEEE APS Kerala chapter to bring academicians and researchers working in the area of Geoscience and Remote Sensing under a common platform. 40 papers were presented in areas of Geoscience and Remote Sensing pertaining to Earth System including data analytics, big data, technologies, calibration, standards and applications. The conference included one keynote address, one industry and eight research expert talks. Prominent speakers included Dr. Tapan K. Sarkar, Syracuse University; Dr. V.K. Dadhwal, Director, Indian Institute of Space Technology (IIST) etc.

### **CULTURAL PROGRAM**

The conference banquet was organized on the evening on 18<sup>th</sup> October 2019. The highlight of the event was a cultural show, wherein various traditional art forms of India, including Bharatanatyam, Kuchipudi, Kerala Natanam etc. were showcased, much to the delight of the visiting guests. There was also a music fusion program. The banquet fare received glowing feedback from the guests.



# 2019 IEEE REGION 10 HUMANITARIAN TECHNOLOGY CONFERENCE (R10HTC2019)

12<sup>th</sup> -14<sup>th</sup> November 2019, University of Indonesia, Depok City, Indonesia

Written by Mohammad Faizal Ahmad Fauzi, Chair for the R10 Newsletter Committee



With the theme *Advancing Sustainable Green Technologies for Humanities*, the 2019 IEEE Region 10 Humanitarian Technology (R10HTC2019) was successfully organized by IEEE Indonesia Section at Universitas Indonesia, Depok City, Indonesia. This conference was the 7<sup>th</sup> edition of the R10HTC series (after Sendai 2013, Chennai 2014, Cebu 2015, Agra 2016, Dhaka 2017, Colombo 2018) and was attended by 350+ participants. Besides the usual keynote speeches and regular parallel sessions, the conference included Technical Tutorial sessions, Humanitarian Activities (HAC) workshop and exhibition, Women in Engineering (WIE) panel discussion, Industrial Relation (IRC) track, Teacher-in-Service Program (TISP) workshop, Professional Activity (PAC) Mini-Conference and Workshop on Conference Management. Dr. Mohammad Faizal Ahmad Fauzi, Chair for the R10 Newsletter committee covered the event in Depok, Indonesia.

## Day 1 – 12<sup>th</sup> November 2019

The pre-conference activities commenced on Wednesday, 12<sup>th</sup> November, 2019. It was filled with special events such as the Workshop on Conference Management, PAC Mini-Conference, HAC workshop and exhibition, as well as tutorial sessions. The Workshop on Conference Management and the PAC Mini-Conference were held at the Margo Hotel. Moderated by Dr. Kurnianingsih, with welcome remarks from the IEEE R10 Director, Prof. Akinori Nishihara, the Workshop on Conference Management brought together leaders and decision makers to address conference leadership practice, conference quality improvement, as well as discussing challenges in the conference landscape, envision the future and launch new conference initiatives. The event served





as a good avenue for conference organizers in Region 10 to share their valuable experiences and best practices to the audiences.



The PAC Mini-Conference was held to identify various innovative and cutting-edge opportunities that IEEE platforms provide. With speakers such as Prof. Akinori Nishihara, R10 Director; Prof. Takako Hashimoto, R10 Secretary and Vice President of Chiba University of Commerce; Dr. Nirmal Nair, R10 PAC Chair;

Prof. Dr.-Ing. Kalamullah Ramli, former Director-General of Post and IT Implementation, Ministry of Communication and IT of Indonesia; and Kuncoro Wastuwibowo from Telkom Indonesia, the workshop shared the best practices and government initiatives with the participants. Dr. Chairul Hudaya, the PAC chair for Indonesia Section gave a demonstration on Smart City Universitas Indonesia. Full report on the PAC Mini-conference at R10HTC2019 is available in Section 5 of the newsletter.



On the same day at Universitas Indonesia, four half-day tutorial sessions were conducted. Prof. Mohamad Yusoff Alias from Multimedia University, Malaysia conducted a tutorial on *Green Communications*, while Dr. Supavadee Aramvith of Chulalongkorn University, Thailand gave a talk on *Video Analytics for Surveillance IoT Applications* in the forenoon session. In the afternoon session, Dr. Hermawan Nugroho from the University of Nottingham Malaysia gave a talk on *Imaging for Life Science*. The last tutorial on *IoT for Agriculture: Urban Lifestyle Farming – A Future Trend of Agriculture in Urban Areas* were jointly delivered by Dr. Sri Wahjuni and Dr. Karlisa Priandana from Indonesia.

A full-day HAC Workshop titled *Engineering Festival for Humanity: Networking, Sharing and Inspiring* were also held at Universitas Indonesia on the first day. Besides the keynote talks by renowned R10 humanitarian technology experts such as Prof. Shaikh Fattah, Dr. Jing Dong, Dr. Supavadee Aramvith, and Dr. Yoke Irawan, the workshop also featured HAC poster exhibition as well as HAC project presentation by 12 best student teams from various countries in Asia Pacific region.



## Day 2 – 13<sup>th</sup> November 2019

The conference proceedings continued on Wednesday, 13<sup>th</sup> November 2019 with the conference chair Dr. Basari welcoming all participants to the 7<sup>th</sup> edition of R10HTC. He also briefed that this year's conference received 98 number of paper submissions, which after careful review, 54 papers was accepted for presentation at the conference. This is followed by welcoming remarks from IEEE Indonesia Section Chair, Prof. Wisnu Jatmiko, as well as the R10 Director, Prof. Akinori Nishihara. The conference was officially open with the hitting of the "gong", a traditional musical percussion instrument, by the R10 Director.



The rest of the morning session saw two very interesting keynote talks. The first keynote lecture was delivered by Mr. Satish Babu, a senior IT and development professional and Chair for the HAC Partnership Committee, who gave a talk about *Towards Sustainable and Ethical Technologies for Humanitarian Applications*. In his talk, he quipped that innovation is now subject to increasing number of constraints, particularly of ethics, ecology, gender, social etc., and it is up to the policymakers to define the parameters in such a way to make the development sustainable, humane and just. The other



equally interesting second keynote was delivered by Prof. Hideyuki Takagi from Kyushu University, Japan, on *Humanized Technologies: It's Not Just About Performance*. Prof. Takagi stressed that we should research and develop technologies from the view point of their respective users, and how human factors are important in technologies. And interactive evolutionary computation is one of the approaches to cooperation between human and computers.

The afternoon session featured parallel sessions wherein half of the papers accepted for the conference were presented. There were 9 sessions addressing specific research topics, namely non-invasive technologies; telecommunication technologies; circuits system and signal processing; bio-signal and bio-image analysis; networking technologies; sustainability and environment; healthcare technologies; network infrastructure technologies; and robotics and automation system.

The afternoon session saw the R10 WIE and IRC tracks held concurrently. The WIE track had a workshop on *Collaborative Social Project for Women Empowerment*, with talks by R10 personnel Prof. Takako Hashimoto, Dr. Emi Yano, and Prof. Celia Shahnaz, as well as two local speakers, Prof. Riri Fitri Sari, University of Indonesia, and Cut Noosy Keumalafajri, Country Head of Customer Experience at Grab Indonesia. Moderated by Dr. Karlisa Priandana, the session also features the presentation of prizes to the winners of the WIE Project's Video Competition held earlier in the year. Full report on the WIE Track at R10HTC2019 is available in Section 5 of the newsletter.



The IRC track on the other hand brought together technologists, engineers, and scientists to promote discussions on recent advancement in technology in order to help improve the lives of the impoverished. With the theme *Innovation for Creating A Smart Future*, the forum featured four speakers from government and industry, namely Nonot Harsono, Board of BAKTI of the Communication and Information Indonesia; Setiaji, Head of Communication and Informatics Department of West Java Province; Faris Rahman, CTO of Nodeflux; and Agus Budi Raharjo, CEO of SmartConnect PT.



The second day of the conference concluded with the conference gala dinner held at the lakeside of Felfest, University of Indonesia. During the dinner, certificate and token of appreciation were presented to all the keynote and invited speakers, as well as to the organizing committee members. Dr. Mohammad Faizal, who is the General Co-Chair for IEEE R10HTC2020 in Kuching, Sarawak, Malaysia was also given the opportunity to promote next year's R10HTC conference. He welcomed all the delegates to submit their research papers for the conference, which is scheduled from 1<sup>st</sup> to 3<sup>rd</sup> December 2020, and to enjoy all the excitement that Sarawak has to offer.

Following a cultural show which was thoroughly enjoyed by the audiences, the R10 Executive Committee in attendance made a surprise 10-year anniversary celebration for Ms. Ewell Tan from the R10 Office for her excellent services to the region. Prof Akinori presented her with a certificate of appreciation, a gift, and a collage specially made with contributions from 30 R10 volunteers.



## Day 3 – 14<sup>th</sup> November 2019



The final day of the conference started with an IEEE Session on *IEEE in Fostering and Strengthening Your Professional Engineering Experiences*. IEEE R10 Membership Development Coordinator, Dr. Parkash Lohana, together with Ewell Tan and Alex Liu from IEEE Asia-Pacific office, took turns to brief the conference delegates on the benefits of IEEE to their professional career. This is followed by another keynote lecture on *Smart Telehealth System to Enhance Healthcare Service in Indonesia* by IEEE Indonesian Chair, Prof. Wisnu Jatmiko. The speaker shared his work on developing two telehealth systems which are very beneficial especially for Indonesia with their vast archipelago where healthcare specialists are more concentrated in the major islands such as Java and Sumatera.

The afternoon session saw nine parallel sessions, wherein the remaining half of the accepted papers were presented on power and energy systems; empowerment and sustainability; water management systems; healthcare and sciences; IoT and communication technologies; disaster management; renewal energy education and awareness; food, agriculture and environment; and blockchain and information technologies. The afternoon session also featured the final workshop of the conference, the Teacher-in-Service Program (TISP) workshop on *Enhancing Student Involvement in Class (STEM)*. The workshop was conducted by Prof. Lance Fung, Region 10 Educational Activities (EAC) chair, with the help from Dr. Irwan Kustiawan, IEEE Indonesia Section Education Society vice-chair. The workshop benefitted the participants, which included school teachers from Depok City, to equip them in introducing hands-on engineering lessons for their students.



Overall the 2019 edition of R10HTC conference was very successful with more than 350 participants from the Asia-Pacific region. Kudos to the organizing team from the Indonesia Section, led by Dr. Basari for a fantastic job.

See you in Kuching, Sarawak, Malaysia in December 2020!



# R10 PERSONALITIES OF THE MONTH

## 2. R10 PERSONALITIES OF THE MONTH

### R10 Personality of the Month – Subhas Chandra Mukhopadhyay

#### New South Wales Section

Subhas Chandra Mukhopadhyay holds a B.E.E. (gold medalist), M.E.E., Ph.D. (India) and Doctor of Engineering (Japan). He has more than 30 years of teaching, industrial and research experience. Currently, he is working as a Professor of Mechanical/Electronics Engineering at Macquarie University, Australia and is the Discipline Leader of the Mechatronics Engineering Degree Program. He is the Director of International Engagement for the School of Engineering of Macquarie University. Before joining Macquarie, he worked as Professor of Sensing Technology, Massey University, New Zealand. His fields of interest include smart sensors and sensing technology, instrumentation techniques, wireless sensors and network (WSN), Internet of Things (IoT), numerical field calculation, electromagnetics etc. He has supervised over 40 postgraduate students and over 100 Honors students. He has examined over 60 postgraduate theses.



Subhas has published over 400 papers in different international journals and conference proceedings, written nine books and forty-two book chapters. He has edited eighteen conference proceedings. He has also edited thirty books with Springer-Verlag and twenty-five

journal special issues. He has organized over 20 international conferences as either General Chair/co-chair or Technical Program Chair (TPC). He has delivered 347 presentations including keynote, invited, tutorial and special lectures. He is a Fellow of IEEE (USA), a Fellow of IET (UK), a Fellow of IETE (India), a Topical Editor of IEEE Sensors journal, and an associate editor of IEEE Transactions on Instrumentation and Measurements. He is a Distinguished Lecturer of the IEEE Sensors Council from 2017 to 2022. He chairs the IEEE Sensors Council NSW Chapter.

In terms of his IEEE contributions, he initiated the IEEE New Zealand Central subsection in 2004 before it was converted to full section in 2005. He was the secretary for the Section till 2009. Then he took the initiative of forming the IEEE Instrumentation and Measurements Society (IMS) New Zealand chapter. He was the founding chair for the chapter and he continued for two years. During his tenure,



the IMS New Zealand chapter was recognized as the Best Chapter in 2012. He was the founding chair of IEEE IMS New South Wales Chapter which he initiated in 2017. He is now the founding chair of the IEEE Sensors Council NSW Chapter which he initiated in 2019.

He is a Topical Editor of IEEE Sensors journal. Due to his time and dedication he has been recognized as the Best Performing Topical Editor from 2013 to 2018, six years consecutively. He handles 11 Associate Editors under his Topical Editorship and he is an excellent mentor to them. He is an Associate Editor for the IEEE Sensors Journal from 2002 and has handled over 3000 papers. He organized the IEEE Sensors conference 2009 at Christchurch, New Zealand. The conference was very successfully organized with 1165 abstracts submitted, the very first time more than 1000 abstracts in the history of the IEEE Sensors conference. He has been successful to bring the IEEE Sensors 2021 conference to Sydney as General Chair, which will be held in October 2021.

Subhas was a Distinguished Lecturer (DL) for the IEEE Sensors council from 2010 to 2013 and delivered a total 62 lectures in 14 countries during that term. Based on his contribution to Sensor council, he has recently been appointed a Distinguished Lecturer again for another 3-year term, 2017 to 2019. As a Distinguished Lecturer of IEEE Sensors Council, he has delivered a special seminar on High quality technical paper writing for IEEE. He has delivered the seminar over 60 times in 16 countries and has been accepted extremely highly. Based on his contribution his DL term has been extended till 2022.



More details of Prof. Subhas Chandra Mukhopadhyay can be viewed at the following link:

<http://web.science.mq.edu.au/directory/listing/person.htm?id=smukhopa>

# R10 WIE Personality of the Month – Zuhaina Zakaria

## Malaysia Section

Dr. Zuhaina Zakaria is currently serving as a Professor in the Faculty of Electrical Engineering, Universiti Teknologi MARA, Malaysia, where she has been working for more than 27 years. She received her Bachelor Degree in Electrical Engineering from Universiti Teknologi Malaysia in 1989. Her postgraduate degrees are Masters Degree from Napier University, Edinburgh, UK in 1997 and PhD in Electrical Engineering from University of Strathclyde, Glasgow, UK in 2005.

Her involvement with IEEE begun when she attended an annual general meeting of IEEE Malaysia Section in 1999 and totally fell in love with IEEE! From that moment, she has served as an executive committee in IEEE Malaysia Section in various positions such as student branch counselor, student activity chair, treasurer, secretary, vice chair and finally Section Chair from 2015 until 2016. She was also the founder for IEEE Malaysia Section-Women in Engineering Affinity Group, which was formed in July 2007.

In addition, she has actively participated in organizing major IEEE conferences in Malaysia since 2006 which includes Student Conference on Research and Development 2006 (SCORED 2006), International Conference on



Engineering Education (ICEED) from 2009 until present, Innovative Smart Grid Technologies (ISGT) Asia 2014, TENSYP 2014, TENCON 2017 and many more. In September 2017, Zuhaina chaired a successfully-organized IEEE WIE Leadership Summit at Kuala Lumpur. In the technical society, Zuhaina is an active volunteer in IEEE Power and Energy Society (PES) Malaysia Chapter and was the Chapter Chair from 2015-2016. In fact, during that time, she was the chair for both IEEE Malaysia Section and PES Malaysia Chapter.

On international level, based on her vast experiences, Dr. Zuhaina Zakaria was appointed as Region 10 Educational Activities (EA) Coordinator for 2017 – 2018. Among the new initiatives that she introduced during this period was the R10 EA Challenge which aims to discover creative programs that provide values to IEEE members and align with MGA goals. She also initiated a collaboration with EAB and Region 8 in organizing Teacher in Service Program (TISP) Week which has trained 500 teachers in 13 locations in R10. As TISP

Champion, she herself helped in conducting TISP workshops in Bali, Dhaka and Kuala Lumpur.

Her role as R10 EA Coordinator has enhanced her visibility internationally and later she was appointed as a committee member in MGA Geo Unit Operations Support Committee for 2018 – 2019. She also received invitations as an invited speaker in several IEEE WIE Leadership Summits in Region 10. Prior to that, she was also appointed as the Chapter Representative for Region 10 PES since 2015 which requires her to monitor the running of seven PES chapters in the south-East Asia.

Dr Zuhaina Zakaria has achieved several “firsts” in her involvement with IEEE for more than 20 years. She was the first recipient from Malaysia Section for **Honorable Mention for the 2018 WIE Inspiring Member Award** and **2018 IEEE MGA Leadership Award**. Recently, she was appointed as member of IEEE PES Long Range Planning Committee which makes her the first IEEE PES member from Malaysia to be in the committee.





## R10 Life Member of the Month – Prof. Kyun H. Tchah

### Seoul Section



Kyun H. Tchah received BS in Electrical Engineering (EE) from Seoul National University (SNU) in 1965, MS in EE from Illinois Institute of Technology, Chicago in 1967 and D.Eng. in EE from SNU, Seoul in 1976. He graduated from Korea Army Signal School and performed military service in a radar unit (1960-1961). Subsequently, he worked for Taihan Electric Wire Co.Ltd. in Republic of Korea (ROK) for two years (1968-1970). Then he joined Department of Electronic Engineering, Soongsil University, Seoul as an assistant professor, an associate professor (1971-1978). He moved to Department of Electronic Engineering, Korea University (KU), Seoul as an associate professor, and then as professor. He visited School of EE, Cornell University, Ithaca as a Visiting Scholar (1982-1983). He served as an arbitrator & chair arbitrator for nine years (1991-2000) in the Korean Commercial Arbitration Board.

Prof. Tchah served as the President of Korean Institute of Communications Science (KICS) in 1998. He also served as Vice-Chairman of the Board of Trustees of Electronics and Telecommunications Research Institute (ETRI) from March 1998 to January 1999. He became IEE (now IET) Fellow and Chartered Electrical Engineer in 2000 and IEEE Life Senior Member in 2009. He carried out faithfully the duty of the interviewer & international member advisor of IEE & IET in the early 2000s. He had worked on positive lines as the IEEE Seoul Section Chair and chapter coordinator concurrently during his term (2001-2002). He was a member of IEEE Joseph F. Keithley Award in Instrumentation and Measurement Committee (2004-2006). He was a visiting & special researcher of Samsung (2001-2003), KIST (1992-1999) and ISRC, SNU (1991-1992) and was very active as a member, consultant, deliberating council members and chairman of various committee in the Ministry of Information and Communications, Ministry of Science and Technology, Ministry of Education, Ministry of Construction and Transportation, Industry Promotion Administration (abolished in 1996), ETRI, KIST, Korean National Assembly, KITECH, KETI, KOSHA, KSA and KEA in Republic of Korea. Prof. Tchah retired from KU in 2004 and then he served as Vice-President & Acting President of Seoul Cyber University, Seoul (2004-2006).

In the first part of his teaching and research career, he had taught Basic Circuit Systems and Communication Theory for undergraduate students and VLSI Design Algorithm for graduate students. In the second part of his career in education, Communication Theory had been his main teaching and research field. He attracted lot of research funds in the late 1990s while in office of Director, RIICT (1996-1998), Korea University. He was awarded the Order of Service Merit from the Korean Government and was the winner of Outstanding Volunteer Award from Region 10 in 2004. He was a recipient of the LG scientific treatise award and of the best paper award from KICS, KOFST, IEIE and KIEE in ROK. He was also winner of achievement award from KICS and IEEE Seoul Section.

Prof. Kyun H. Tchah presented many papers with his graduate students internationally and domestically. He authored or co-authored ten books in Korean language and one of them was for stock proverb applying Bible verse. He has Investment Counselor Certificate, ROK. He is currently IEEE LMAG Seoul Section Chair and Seoul Section mentor. He is now presently serving as Professor Emeritus, Korea University.

## R10 Student Personality of the Month – Misbah Hassan Abbasi

### Islamabad Section

Misbah Hassan Abbasi was first exposed to IEEE in November 2015. Joining IEEE proved to be game-changer and becoming part of an international organization as a volunteer meant “advancing technology and work for the betterment of humanity” at the branch, section, national and regional levels.

IEEE provided the motivation to use Misbah’s skills for the welfare and betterment of people especially of women in society and to minimize the stereotype concept entrenched in their environment that a woman can’t proceed forward or progress without the help of man. IEEE brought Misbah Hassan Abbasi several laurels like Pride of Performance Award 2016 and Outstanding WIE Volunteer Award 2017 at Branch level. These accolades led her to be appointed as Chairperson to lead the IEEE UET Taxila WIE Affinity Group for the year 2018-2019.

Her desire to serve the IEEE Islamabad Section resulted in a technical events spree for the benefit of humanity and creating an effective communication path between the branches and Section. She encourages them to come into the front line and volunteer to bring the technological reforms by participating and conducting attractive and healthy events. These outstanding efforts resulted in her being appointed as the Associate Section Student Representative, SAC IEEE Islamabad Section for the year 2019.

Along with her team, as the Chairperson of IEEE WIE AG UET Taxila, she conducted impactful and fruitful events at Student Branch level, the most prominent among them being Nourishing Young Minds-Engineering Projects in Community Services as a part of *EPICS in IEEE*, which followed the theme of STEM education program.

Inspired by the motto of IEEE WIE, to engage, encourage and empower the women, her aim is to motivate and encourage girls that they can be a part of a technical domain which provides a professional platform not only to learn but also to explore the latest technological advancement. She believes that the 2019 IEEE R10 WIE OUTSTANDING VOLUNTEER AWARD she received made her understand that good things take time.

*“Hard work pays off, sooner or later. All we need to understand is, accept the time by grace through faith” - Misbah*



# **R10 ORGANIZATIONAL UNITS (OU) OF THE MONTH**

### 3. R10 ORGANIZATIONAL UNITS OF THE MONTH

#### R10 Large Section of the Month – Victoria Section

**Prepared by: by Alan Harvey, Chair for IEEE Victorian Section**

The IEEE Victoria section was formed in 1983. Presently, it has over 2000 members. For the last three years, membership has been rising at around the 3% mark per annum. The section commonly has over 100 meetings per annum. With more than 20 chapters and three affinity groups, the unit is quite active. These are Women in Engineering (WIE), Life Members (LM) and Young Professionals (YP). Of these affinity groups, WIE is the most active. A strong feature of their work has been the e-textiles program, which has been run over many years.

This year marked the start of a serious attempt to make our meetings dual mode, namely face-to-face and by video link. Thanks to an industrious member, Biplob Ray, a good video conferencing facility was made available in University of Central Queensland, not in Queensland but at 120 Spencer St. While there were some physical and online security issues, the venue worked well with up to 5 online members at some meetings and about 20 physical members.

In March this year, following an offer from the Victorian IEEE section, the Region 10 conference was held in Melbourne to allow meetings of section chairs and IEEE executives from all over Region 10, anywhere from Afghanistan to Australia. This was held at the Pullman Hotel on the Albert Park lake. A useful meeting was held and many friendships made. The author contributed a motion to the effect that two local students should be invited to attend the yearly R10 administration meeting. This was passed at the R10 Melbourne meeting.



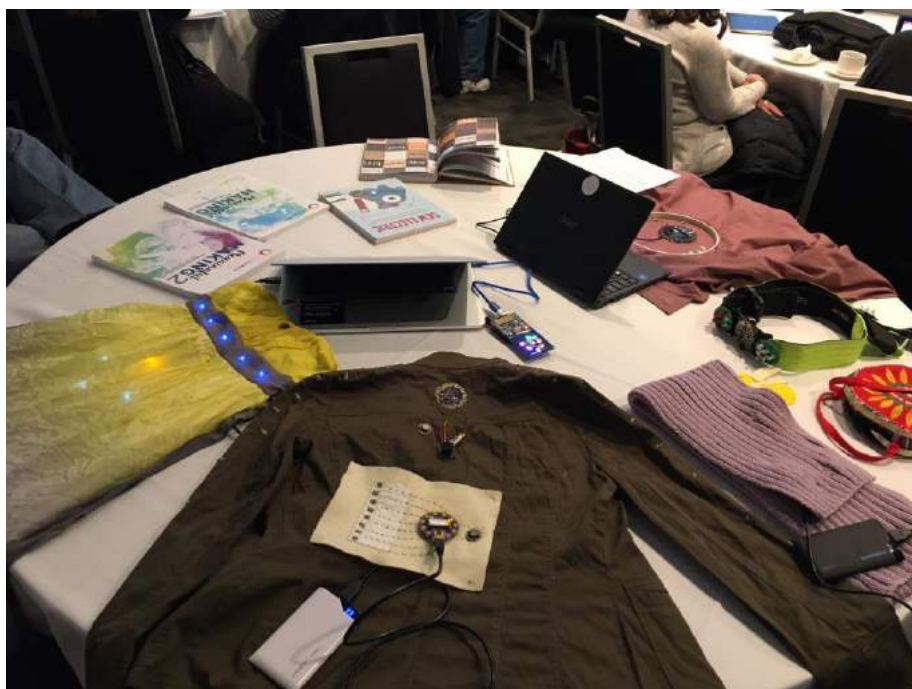
*Team members of Wearable textiles workshop, Mehrnaz Shoustarian, Harmony Yu, Fatemeh Jalili Dona and Eehui Lim.*

During 2019, section membership increased by 3%, marking several successive years of modest growth. This may be put down largely to several active technical chapters leading the way with interesting activities. More needs to be done to take all chapters up to a higher activity level. In keeping with previous years, WIE members have introduced many high school students to e-textiles. Recently a group of WIE volunteers, Mehrnaz Shoustarian, Eehui Lim, Harmony Yu and Fatemeh Jalali showed a large group of high school teachers how they could introduce e-textiles into their schools.

This August, two IEEE members Emerson Keenan and Harmony Yu attended a Conference Leadership Training program organized by Region 10 in Goa, India. It was attended by IEEE MCE executives who presented essentials of a Conference Leadership Training program. This was run on 16<sup>th</sup> and 17<sup>th</sup> August 2019. Delegates from across R10 were in attendance including participants from India, China, Japan, Indonesia, Malaysia and Singapore. The members who attended the program were equipped to take up leadership positions in the IEEE and in the wider community as well. Colorful reports of their varied

activities were presented to the committee. Much useful information and ideas came out of the R10 leadership training program.

Earlier this year, the state government passed a bill requiring practicing engineers to become registered. This will cost engineers some thousands of dollars per annum. Two of our members Enn Vinnal and Les Davey are aiming to bring the IEEE into the accreditation and examination process.



Last month, IEEE Young Professionals ran a wearable textiles fashion display complete with rap dancing. This was well attended by Latrobe members and large numbers of family members whose secondary school children displayed their work on the fashion runway set up by at Latrobe University. WIE have strongly promoted the wearable electronics to many secondary schools. This fashion show was organized by YP Teodora Raducan and other IEEE members.

*Some e-textile examples are shown on the right.*

## R10 Medium Section of the Month – Sendai Section

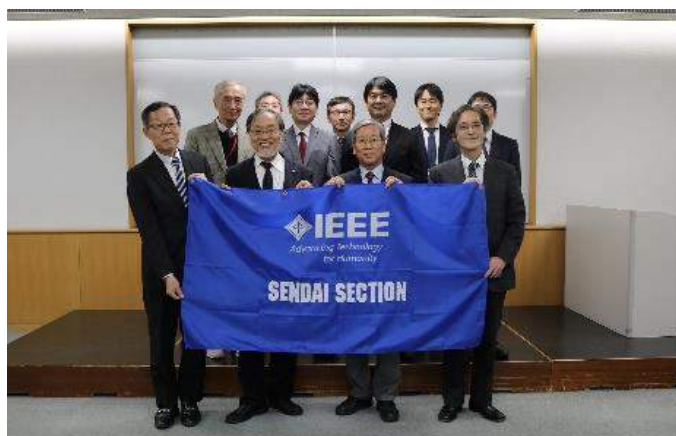
Prepared by: Hirohito Yamada, Vice Chair for IEEE Sendai Section

The IEEE Sendai Section was established in 1998. With an outstanding performance, the IEEE Sendai Section has met both of its recruitment and retention goals for the 2019 membership year. The IEEE Sendai Section has been awarded the *2019 Outstanding Section Membership Retention Performance* in August, 2019. The membership development goals were developed based on the Section's four-year performance.



In terms of activity, a successful *Metro Area Workshop (MAW) 2019 in Sendai* was held on 24<sup>th</sup> October 2019 at Sendai Small and Medium-sized Enterprises Activation Center with over 90 participants. The workshop focused on information and communication technologies that contribute to a super-smart society. There were five speakers who delivered special talks on 5G mobile systems, MEMS sensor devices, health care, advanced smart city initiatives, and face recognition and AI technologies. The workshop started with a welcome by Prof. Michitaka Kameyama, IEEE Sendai Section Chair. This was followed by addresses by Prof. Akinori Nishihara, R10 Director and Prof. Takao Onoe, Japan Council Chair. The special talks were as follows:

- *Development history of mobile phone systems and future prospects* by Dr. Fumiyuki Adachi, Project Professor, ROEC, Tohoku University
- *Practical application of semiconductor micro-fabricated MEMS sensors* by Dr. Masayoshi Esashi, Senior Research Fellow,  $\mu$ SIC, Tohoku University / CTO, MEMS CORE Co., Ltd.
- *Modern healthcare important issues and the potential of ultra-smart information communication technology* by Dr. Iwao Waga, Project Reader of COI Tohoku Site / NEC Solution Innovators, Ltd.
- *Advanced smart city initiatives at Sendai Tagonishi area* by Prof. Takuo Suganuma, Tohoku University
- *The forefront of face recognition technology and AI technologies* by Dr. Kazuyuki Sakurai, NEC Biometrics Res. Lab.



These distinguished speakers gave impactful and interesting presentations, and lively discussion was held with the participants. It is noteworthy that 40 people from companies or local government joined the workshop. After the workshop, an exchange meeting was held at Hotel JAL City Sendai with great success and nearly 50 participants.



# R10 Small Section of the Month – Republic of Philippines Section

Prepared by: R. Cajote, Chair for IEEE Republic of Philippines Section



IEEE Republic of Philippines Section was established on 30<sup>th</sup> March 2008. Since then, various technical societies have been formed such as the Power and Energy Society, Computational Intelligence Society, Solid-State Circuits Society, Computers and Communication Joint Society and the Special Interest Group in Humanitarian Technology. 2018 saw the formation of the Young Professionals (YP) and the Women in Engineering (WIE) volunteers group. In October 2019, two new societies were formed namely the Signal Processing & Circuits and Systems Joint Society and the Education Society. To date, the section has 495 members.

The section was able to host the IEEE TENCON, the flagship conference of R10 back in November 2012 and it was held in the island of Cebu in Cebu City. Cebu is one of the major cities and tourist destinations in the Philippines.

Key area focus areas of the section has been to improve the overall membership base, encourage more senior members and find ways to retain the student members by converting them to young professionals. Providing funding support for student activities and increasing the number of student branch formations in other universities in the Philippines are also on the anvil. Students are an essential component of the future of the section. The section tries to integrate them into the activities of the IEEE early on by providing reward initiatives and funding support whenever available.



Another objective is to provide more value for its members. The committee is working on initiatives to unite all the members and volunteer groups into one common gathering so as to get feedback to better serve their needs. Efforts have also been initiated to collaborate with the other local professional groups in the fields that are relevant to IEEE such as the Institute of Integrated Electrical Engineers (IIEE) and the Institute of Electronics and Communications Engineers of the Philippines (IECEP). The section is exploring ways to work with these local professional groups to ensure that activities can be mutually beneficial and adding value to both groups.

Another direction has been on improving the overall operational efficiency, fiscal management and maximizing funding opportunities available for the Section. The Section strives to have a more transparent communication of activities to its members, a more active social presence and attract more participation from the industry. The Section upgraded & enhanced its website and engaged with social media platforms like Twitter and Facebook (targeted at younger members) and IEEE Collabratec.



The Republic of Philippine Section is still very small but is making significant progress to increase its presence in the IEEE community.

# R10 Subsection of the Month – Bahawalpur Subsection

<https://www.r10.ieee.org/bahawalpur>

Prepared by: Muhammad Ali Qureshi, Chair for Bahawalpur Subsection ([ali.qureshi@iub.edu.pk](mailto:ali.qureshi@iub.edu.pk))

## About IEEE Bahawalpur Subsection



*Dr. Muhammad Ali Qureshi,  
Chair Bahawalpur Subsection*

The IEEE Bahawalpur Sub-Section was formed on 13<sup>th</sup> February 2016. Mr. Anees-ul-Hasnain was its founding chair. More than 50 IEEE members in good standing from South Punjab signed the petition for its formation. The signatories were drawn from the territories of Southern Punjab starting from Sahiwal city up to Sadiqabad and D. G. Khan. There are four active student branches under the subsection at University College of Engineering & Technology Islamia University Bahawalpur (UCET-IUB), University College of Engineering & Technology Bahauddin Zikaraya University (UCET-BZU) Multan, Khawaja Farid University of Engineering & Information Technology (KFUEIT) Rahim Yar Khan, and National Fertilizer Corporation Institute of Engineering and Technology (NFC-IET). There are also three affinity groups under the subsection. The Subsection reports its activities to the IEEE Lahore Section annually. The subsection has been steadily growing its membership base by focusing on several targeted activities.

## IEEE 2019 3<sup>rd</sup> Bahawalpur Subsection Student/ YP/ WIE/ Congress (BSSYWC'19)

The Bahawalpur Subsection Congress is a yearly event organized by one of the student branches under the subsection. The 3<sup>rd</sup> edition of IEEE Bahawalpur Subsection Student/ Young Professionals/ Women in Engineering Congress 2019 (BSSYWC'19) was held from 29<sup>th</sup> to 30<sup>th</sup> March 2019 at The Islamia University Bahawalpur, Pakistan in collaboration with IEEE-HAC, IEEE-YP, and IEEE-SPS chapters. The BSSYWC'19 proved to be one of the biggest technology events of South Punjab and IEEE Pakistan. The two-day congress was attended by students and faculty delegations from more than ten engineering & computer science institutes of Southern Punjab. The objective of the event was to provide a platform for students to interact with researchers, industrial experts, entrepreneurs, young professionals, women engineers, and fellow students to discuss the advancements in their respective fields.



## IEEE 2019 Annual Engineering Project Exhibition (AEPEX)

IEEE Annual Engineering Project Exhibition is another signature event of the subsection. In this event, the senior projects of all the engineering disciplines are displayed. These projects are the outcomes of their four years of learning and the source of inspiration and motivation for their juniors. This year's AEPEX was arranged with the collaboration of the IEEE SMCS, IEEE ComSoc and the IEEE UCET-IUB Student Branch. The event included various projects like home-automation, LiFi-based projects, surveillance drones, war games, shopping robots, swarm robots, assistive text reading devices for visually impaired people using computer vision methods and many more intriguing and innovative projects. Many of these projects were also funded.







### IEEE 4<sup>th</sup> Asia/Pacific ComSoc Summer School

IEEE ComSoc Summer School program is one of the major events of IEEE Asia/Pacific held annually in one of the selected cities in Pakistan, where the engineering community gathers to connect and communicate with eminent professionals, aspiring innovators, meritorious professors, researchers and experts from all over Pakistan. This year, the 4<sup>th</sup> Asia/Pacific IEEE COMSOC Summer School 2019 was organized by IEEE ComSoc Lahore Chapter, Bahawalpur Subsection and KICS-UET Lahore at the Islamia University of Bahawalpur from 9<sup>th</sup> to 12<sup>th</sup> October 2019. The theme for the summer school was "Autonomous Systems".



The executive and extended committees for the subsection for 2019-2020 are as follows:

Dr. Muhammad Ali Qureshi, *Chair*  
 Dr. Asjad Amin, *Vice-Chair*  
 Engr. Aoun Muhammad, *Treasurer*  
 Dr. Khan Bahadar Khattak, *Professional Activities Committee Chair*  
 Engr. Maira Alvi, *Awards & Recognition Committee Chair*  
 Engr. Anum Farooq, *Educational Activities Chair*  
 Engr. Muhammad Nawaz Abbasi, *Industrial Relation Officer*  
 Engr. Mahnoor Balouch, *Newsletter Editor*  
 Abdullah Rao, *Student Activities Chair*  
 Muhammad Farid Zamir, *Student Representative*  
 Muhammad Usman Zafar, *Membership Development Chair*  
 Muhammad Ammar Mehdi, *vTools Coordinator*  
 Sana Ghafoor, *Web Master*

# R10 Student Branch of the Month – National Institute of Technology Karnataka (NITK) Student Branch, India

Prepared by: Archit Pandey, Chair for IEEE NITK Student Branch

It is popularly said that great endeavors often have humble beginnings. The IEEE NITK Student Branch is a standing testimony to this belief. Starting as a small group of 4 people in 1988, it has now grown tremendously, sustaining a family of over 200. With active participation and innovation, it continues to be an esteemed student branch of the Bangalore section. Persistent efforts for improvisation, compounded with consistent performance has landed IEEE NITK in a decorated spot. Some of the most recent awards include Bangalore Section Outstanding Student Branch Award, Darrel Chong Award for Outstanding Student Practice and Region 10 Exemplary Student Branch Award.

The driving focus of the student branch is to promote experiential learning. Since its inception, IEEE NITK has worked towards making technology more inclusive. Through its various events, the volunteers aim to reach a diverse set of individuals.



## Women in Technology Summit

The first-of-its-kind ever conducted, the summit witnessed delegates and speakers from across the country, gathering for three days, in view of advancing the role of women in technology and society.

## Athena

A 24-hour all-women's hackathon was organized for the female students of NITK under WIE Affinity Group in association with Web Enthusiasts Club, NITK. The applications developed were all based on a given problem statement and were evaluated by senior professors.

## Embedathon

A 24-hour hardware hackathon in collaboration with IEEE Circuits and Systems Society. The event aimed to promote the hardware hacking culture while teaching participants to work with popular electronic components.

## Reflect

A flagship IEEE Women in Technology event which aimed to introduce women to various career opportunities in the technology sector.



## Other Initiatives

- As part of Enlighten, a series of talks by researchers in both industry and academia is being regularly organized. These talks serve to expose students to research in various fields of their interest.
- *Dishaspoorthi* is held annually as an event aimed at career guidance for disadvantaged high-school students.

In providing an insight into the annual activities of IEEE NITK, the SB seeks to inspire students across the world to dedicate time for technological innovation and volunteering activities. Moving forward, IEEE NITK's goal is to expand its events to a wider audience at the Section level. Through expanded events, the SB wishes to work towards serving the IEEE's motto of *Advancing Humanity for Mankind!*







## 4. IEEE DAY 2019 CELEBRATIONS ACROSS R10

### Islamabad Section

#### IEEE Day 2019 Celebrations at IEEE Comsats University Student Branch

**Moudud Fiaz Chaudhary, Treasurer for IEEE Comsats University Islamabad Student Branch**



On 4<sup>th</sup> October 2019, IEEE Day was celebrated at CS Department, COMSATS University, Islamabad (CUI). At the beginning (11:30 AM) the event lead, the Treasurer of IEEE CUI Student Branch, Moudood Fiaz Chaudhry shared his thoughts regarding IEEE Day. The guest speaker of the event was Mr. Muhammad Habibullah, Founder and CEO of Diversity, CEO of English in Moments, a philanthropist and an entrepreneur. He delivered a speech focused on becoming the best leader through the use of technology and innovation in an effective manner.

Next a video message session was organized where we invited some of our Highest Achievers IEEE members who shared an insight about what IEEE is all about and how it provides every volunteer an opportunity to take a higher step into their future. Finally, after giving the token of appreciation to speakers, a cake cutting ceremony was held headed by Mr. Habibullah and the Chairperson of IEEE CUI, Hasham Hafeez. A photo session was also organized. The event was successful and with the combined efforts of IEEE CUI members and volunteers, it went down as a historic celebration!



#### IEEE DAY and Insight 2019 at IEEE PIEAS Student Branch

**Muhammad Tahir Khan, Chair for IEEE PIEAS Student branch**

We gathered, we created memories, we celebrated IEEE Day in all its glory. IEEE PIEAS SB organized an insight session on 1<sup>st</sup> October 2019 to give insight about IEEE and its role in society to the freshmen students of PIEAS and to celebrate IEEE DAY 2019. We were joined by the honorable guests Mr. Fahad Sajid (former SSR of IEEE





Islamabad Section and former Chairperson of IEEE CUST SB), Ms. Zoha Rashid (Chairperson of IEEE WIE ILS'19 and former Chairperson of WIE PIEAS AG) and Mr. Ali Husnain Joyia (former Chairperson of IEEE PIEAS SB). They shared their experiences and explained the vital role that IEEE plays in our lives and how it benefits our social and professional life.

### IEEE DAY 2019 at IEEE CUST Student Branch

**Hamza Aamer, General Secretary for IEEE CUST Student Branch**



IEEE Day 2019 was commemorated under the umbrella of IEEE CUST Student Branch dated 7<sup>th</sup> October 2019 at the Capital University of Science & Technology. Its commemoration was divided into two segments; one was speed wiring competition which comprised ten groups having three members each. The task was to make IEEE emblem using LED lights on breadboard. The group which implemented the circuit correctly in the shortest time was declared as the winner. In the end certificates of appreciation were awarded to the winning group and the participants. A photography competition was also organized. Overall, 50 students participated and indeed made it one of the most remarkable events.

### Karachi Section

#### IEEE DAY 2019 Celebrations by IEEE Karachi Section

**Saifullah Baloch, Section Student Representative (SSR) for IEEE Karachi Section**



This year Student Activities Committee of IEEE Karachi Section decided to have a series of IEEE Day Celebrations given below:

**1. DHA Suffa University, Karachi Sindh, Pakistan on 5<sup>th</sup> October 2019 [40 IEEE Members]**

The event consisted a session on Leadership Skills by SSR of IEEE Karachi Section, Saifullah Baloch, followed by cake cutting ceremony, lunch and group photo session.

**2. Jinnah University for Women, Karachi Sindh, Pakistan, 9<sup>th</sup> October 2019 [8 IEEE Members, 15 non-members]**

The event started with a IEEE Awareness Session given by the SSR focusing WIE AG, followed by cake cutting ceremony, finally ended with a delicious lunch and group photo.

**3. Dream World Resort, Karachi Sindh, Pakistan on 19<sup>th</sup> October 2019 [90 IEEE Members, 20 Non-IEEE Members]**

Students from different student branches enjoyed gaming zone and swimming pools. After the lunch, IEEE Day cake cutting ceremony and group photo session were held followed by a networking session.

**IEEE DAY'19 at Mehran University of Engineering & Technology (MUET) Student Branch**  
**Hira Abid Khan, Chair for IEEE MUET Student Branch**

IEEE MUET Student Branch celebrated the IEEE Day with more than 60 student members of the branch participated in the event. The Branch Counselor of IEEE MUET Student Branch, Prof. Dr. Asif Ali Shah was invited as the Chief Guest of the ceremony. This event was divided into three parts. In the first half the main aims & objectives of IEEE were deliberated by the Chair, Ms. Hira Abid Khan for all the new members. In



the second half, IEEE day was formally celebrated through cake cutting ceremony, and in the third half, the official logos of newly opened student chapters IEEE PES MUET Chapter, IEEE WIE MUET Chapter and IEEE CS MUET Chapter were launched. This celebration day not only helped new members to understand the main objectives of IEEE but enhanced the mutual working spirit of different chapters of IEEE MUET Student Branch.



IEEE MUET Student Branch's delegation went on to took part in IEEE Day celebration by IEEE Karachi Section on 19<sup>th</sup> October 2019. All the student branches of Karachi Section were invited to this grand celebration, under the coordination of the honorable Section SSR, Mr. Saifullah Baloch. This celebration helped our

delegates to learn new skills as well as increase the join work relationships with delegation from various chapters of Karachi section. We are looking forward for joint branch events in the future as a result of this fruitful gathering.



## Queensland Section

### IEEE Day Celebration

**Nilesh Modi, Chair for IEEE Queensland Section**



IEEE Day celebrates the commemoration of the first time in history that engineers gathered together to share their ideas in 1884. On 1<sup>st</sup> October 2019, Queensland Section decided to honor this date by inviting all its members to an Australian style barbeque. During this event, a membership drive activity was carried out where IEEE Queensland members were encouraged to apply for Senior member position. On this day the longstanding contribution of two of our most active

volunteers, Professor Tapan Saha and Professor Vaughan Clarkson was recognized. Congratulations to both, Queensland Section is extremely grateful for your contributions. At the end, a cake was shared among the volunteers celebrating an excellent year.

## Tokyo Section

### IEEE Tokyo SYWL Workshop & IEEE Day Party 2019

**Mayumi Suzuki, Past Chair for IEEE Tokyo Section YP AG / IEEE Day Tokyo Section Ambassador**

IEEE Tokyo SYWL Workshop & IEEE Day Party 2019 were hosted by IEEE Tokyo Section SAC/YP/LMAG and Japan Council WIE, with the co-sponsorship of IEEE Tokyo University of Agriculture and Technology / The University of Electro-Communications / Meiji University Student Branches,





and held on Saturday 5<sup>th</sup> October 2019, at Nihon University. 45 people got together in the vibrant events.

This workshop has encouraged the spread of cross-generation and cross-technical fields communications throughout IEEE members and aimed at further cooperation among SYWL in Tokyo Section. We had some lectures titled *IEEE and Me* by SYWL representatives and workshop. The participants were separated into 7 groups for discussing about leadership, diversity, future technology and so on.

The social event for the celebration of IEEE Day took place after the workshop. The SYWL members of Tokyo Section gathered and mingled around the IEEE Day special cake in memory of its 10th anniversary!

## Malaysia Section

### IEEE Day 2019

**Mohd Hafiz Ismail, Executive Committee for IEEE Malaysia Section / IEEE Day 2019 Ambassador**



IEEE Malaysia Section successfully organized its Open Day 2019 on 12<sup>th</sup> October 2019 at Malaysian Global Innovation and Creativity Centre (MaGIC), Cyberjaya, in conjunction with IEEE Day 2019 and IEEE TISP Week 2019, supported by R10 PAC

Challenge Fund, R10 SAC Leadership and Membership Development Fund, R10 EA TISP Fund and Ministry of Higher Education Malaysia.

210 participants attended this Open Day, which includes variety of programs such as the Townhall Session by Assoc. Prof. Dr. Fawnizu Azmadi Hussin (Chair, IEEE Malaysia Section), Humanitarian Activities Sharing Sessions by Assoc. Prof. Dr. Robiah Ahmad (Humanitarian Activities Chair) and Chong Yu Zheng (Honorary Treasurer), Malaysia Distinguished Lecture Program by Mohammed Rawidean Mohd Kassim (R&D Manager, Technology Dept. MIMOS), Senior Memberships Workshop by Assoc. Prof. Ir. Dr. Md Pauzi Abdullah (Vice Chair/ Chair Elect), Teacher-in-Service Workshops by Dr. Mohd Hafiz Ismail (Educational Activities Chair) and Dr. Raja Jamilah Raja Yusof (Executive Committee, IEEE



Malaysia Section Women In Engineering) as well as Student Congress by Dr. Alpha Agape Gopalai (Student Activities Chair).

Besides the Open Day, a total of 19 other IEEE Day-related events were successfully organized in Malaysia Section from 1<sup>st</sup> October until 18<sup>th</sup> October 2019.

- **1<sup>st</sup> October 2019** | IEEE Malaysia Section Student Branch Adoption Program - Industrial Lecture Program by IEEE EPS Malaysia, IEEE UniMAP SB and School of Microelectronic Engineering (SoME), UniMAP at Auditorium PTSFP. Speakers: Dr. Eu Poh Leng, Dr. Mohanraj Soundara Pandian and Dr. John Tan.
- **5<sup>th</sup> October 2019** | A Family Day gathering of IEEE PES Malaysia at Gurney Bowl, UTM Residensi, Kuala Lumpur. Activities: Bowling, colouring contest and Beyblade tournament.
- **7<sup>th</sup> October 2019** | IEEE Technical Talk by Prof. Aimin Song at UniMAP, organized by IEEE Malaysia Section Sensors and Nanotechnology Joint Councils Chapter (Sensors & Nano), jointly organized by SoME and INEE, UniMAP.
- **8<sup>th</sup> - 9<sup>th</sup> October 2019** | The IEEE Penang Joint Chapters organized the 4<sup>th</sup> IEEE IMESS 2019, at PSDC Penang. Theme: AI, 5G and IOT: Technology Convergence for Betterment of Humanity.
- **10<sup>th</sup> October 2019** | IEEE DLP by IEEE Sensors & Nano, jointly organized by SoME and INEE, UniMAP. DLP Speakers: Prof. Seiji Samukawa, Prof. Cor Claeys and Prof. Ved Ram Singh.
- **11<sup>th</sup> October 2019** | IEEE Day Technical Talks at UTAR. Speakers: Assoc. Prof. Ts. Dr. Lee Kim Yee and Prof. Ts. Dr. Lim Eng Hock.
- **11<sup>th</sup> - 13<sup>th</sup> October 2019** | Makerthon 2019 by IEEE USM SB, jointly organized by IEEE UniMAP SB and IEEE WIE Malaysia, and supported by R10 Joint SB Initiative Fund.
- **15<sup>th</sup> – 17<sup>th</sup> October 2019** | 17th IEEE SCORed was held at UTP, Malaysia, organized by IEEE Malaysia Section and IEEE UTP SB, in collaboration with UTP and IEEE RAS Malaysia.
- **17<sup>th</sup> October 2019** | IEEE UTHM SB in collaboration with UTHM EE Club successfully organized TEDSAT 3.0 at UTHM, in conjunction with UTHM FESTKON.
- **17<sup>th</sup> October 2019** | IEEE Day 2019 by IEEE Curtin Malaysia Student Branch at Auditorium Curtin University, Malaysia.
- **18<sup>th</sup> October 2019** | MY WIE Congress at UNITEN by IEEE WIE Malaysia Section, co-organized by IEEE UNITEN SB.



# R10 EXCOMM ARTICLES

## 5. R10 EXCOMM ARTICLES

### R10 Section Incentives 2019

Prepared by: Akinori Nishihara, IEEE Region 10 Director

We are pleased to announce the incentive grants to the submitted Sections, Subsections representing individual countries, and Councils evaluated by R10 Operations Committee as below. Please join me to congratulate the following Sections/Subsections/Councils for making great efforts to organize activities for their local IEEE community. A job well done to the volunteer leaders of these units!

No.	Council	Incentive (K USD)
1	India Council	2
2	Japan Council	2
3	Australia Council	1

No.	Large Section	Incentive (K USD)
1	Hyderabad Section	5
2	Bangalore Section	4
3	Bangladesh Section	4
4	Kerala Section	4
5	Uttar Pradesh Section	3.5
6	New South Wales Section	3
7	Kolkata Section	3
8	Madras Section	3
9	Malaysia Section	3
10	Bombay Section	2.5
11	Gujarat Section	2.5
12	Tokyo Section	2
13	Delhi Section	2
14	Kansai Section	2
15	Singapore Section	2
16	Beijing Section	2
17	Indonesia Section	2
18	Victorian Section	2
19	Seoul Section	1

No.	Medium Section	Incentive (K USD)
1	Pune Section	3.5
2	Queensland Section	3
3	South Australia Section	3
4	Western Australia Section	2
5	Karachi Section	2
6	Nagoya Section	2
7	Sendai Section	2
8	Islamabad Section	1.5
9	Lahore Section	1.5
10	Tainan Section	1
11	Fukuoka Section	1
12	Daejeon Section	1

No.	Small Section	Incentive (K USD)
1	Macau Section	2
2	Australian Capital Territory Section	2
3	Vietnam Section	2
4	New Zealand Central	2
5	Northern Australia Section	1.5
6	Shikoku Section	1.5
7	Republic of Philippines Section	1.5
8	Gwangju Section	1

No.	Subsections (represent by its own countries only)	Incentive (K USD)
1	Bhutan Subsection (under R10)	2
2	Fiji Subsection (under R10)	1.5
3	Mongolia Subsection (under R10)	1.5
4	Nepal Subsection (under R10)	1.5
5	Myanmar Subsection (under R10)	1.5

We look forward to your participation and receiving more submissions next year.



# Special Industry Track at IEEE TENCON 2019

Written by: Chris Gwo Giun Lee, Amit Kumar, and Nirmal Nair, R10 Industry Relations Committee

## Special Industry Track Description

The **Special Industry Track (SIT)** is a new initiative innovated and introduced by Prof. Takako Hashimoto, which was jointly organized by IRC/PAC together with Students, YP, WIE (SYW) and renowned global and local Indian industry in Region 10's flagship conference TENCON on 19<sup>th</sup> October 2019 from 08:30 AM ~ 06:00PM at Hotel Grand Hyatt, Kochi, Kerala, India. Featuring Industry Forums on state-of-the-art topics in SMARTTECH, eMobility, and Cybersecurity in addition to startup panels, the program overview chaired by Mr. Amarnath Raja, Past Chair of Kerala Section, is stipulated in the program overview below. The SIT program also included an industry visit tour on 20<sup>th</sup> October 2019 to Kerala's Maker Village.

As an initiative in responding to the vibrant ecosystem brought forth by Industry 4.0 especially in Artificial Intelligence (AI), the SIT program is the first one-day joint, academia, industry, and government track innovated in Region 10's conference. As the program consisted of Industry Forum, Startup Panels, etc. by global leading industries including, Nissan, IBM, Cadence, etc. and prestigious local industries, it had aroused significantly high interests from the attendees. SIT attracted around 65 attendees including students, professors, researchers, and global and local industry leaders with 46 people provided feedback.

Although the industry forum within SIT in TENCON 2019 was a new initiative in flipping the role between academia and industry, now with industry initiating presentation and discussions, unlike normal conferences where attendees were still accustomed to and were probably expecting traditional panel settings, the attendees were highly receptive and provided very positive feedbacks. We felt this was primarily due to Prof. Takako Hashimoto's vision in innovating a full day SIT program at the same location with TENCON's normal paper track which provided a professional networking platform for Region 10's SYW to reach out to the industry.

Starting with global and local industry leaders, Mr. Jaswinder S. Ahuja, Corporate Vice President and the Managing Director of Cadence Design Systems in India, and Dr. Gopal Pingali, an IBM Distinguished Engineer and Vice President of the Global Technology Services Labs (GTS Labs) at IBM addressed their visions in global trend of intelligent systems and computing, subsequently with academia brainstorming together for innovative solutions. This also provided students with real world thesis topics opportunities in easing their career paths towards industry. Through these interactions, academia throughout Region 10 also had the opportunity to substantiate on real world problems with research outcome required by the Industry,

Chaired by Dr. Nirmal Nair, the first panel discussed on biotech and smart sensors. Dr. Amit Kumar, CEO of BioAxis, a leading bio-tech startup in Hyderabad, India and Dr. Kush Agarwal, Indian-born young entrepreneur, now CEO of Wave Scan in Singapore had highly inspired Regions 10 and Indian SYWs with their visions in entrepreneurship and have especially motivated them towards startups under current vibrant ecosystem of Region 10. In addition, through interactions with SYW in corresponding panel discussions, Dr. Kumar and Dr. Agarwal also shared insightful requirements for internships, also providing talent recruiting opportunities beneficial for their startups. As such, with these experiences, IRC would pursue further in the task of internship with anticipating of helping Region 10 students in 2020.

The cyber threat landscape has grown by leaps and bounds in recent years. So much, that even the World Economic Forum's report of 2018 recognizes the breakdown of information infrastructure and networks due to large-scale cyber-attacks, as one of the top five global risks that impact people, in terms of their "likelihood."

The silver lining though is that the strategies that can be employed to mitigate such risks and maintain business continuity, are evolving as well. An engaging panel discussion to know more about such strategies from some of the leading cyber security specialists in the country was organized by Nissan Digital. The panel on *New Age Cyber Attacks—Strategies to Mitigate Them and Remediate* was Moderated by Tarun Kumar, Chief Information

Security Officer, Nissan Digital India and joined by Lince Lawrence - Director, Cyber Security Advisory, Ernst & Young (EY) GDS , Vikas Kapoor - VP, Cyber Security, Vodafone Shared Services , Rohit Anand - Director & Partner, Tanisi IT Services P Ltd and Atul Gupta - Leader – IT Advisory (Risk Consulting) and Cyber Security, KPMG.

Another panel on eMobility was moderated by Mr. Allabaksh Naikodi, Mahindra Electric, Dr Ananth Krishna, CEO, iAMPS, and Mr. Mustafa Wajid, Meher Group. Most of the discussions focused towards improving the quality of life and how IT infrastructures can play a vital role there. All the moderators presented some case studies and shared their experience how the engineering community can contribute towards e mobility.

A panel on industry and startups was moderated by Sharada Jayakrishnan and Kush Agarwal - Wavescan Singapore, Shalini James - CEO Mantra and Jijog John - Calpin group participated as panelists. Panel drew a lot of interest in the young professionals and lot of discussions related to starting a company, innovation and challenges were discussed. All the panelists shared their experiences how they started up their companies.

As was originally planned, and with most sincere appreciation, this SIT program was co-organized by Region 10 IRC and IEEE TENCON 2019, with Prof. Akinori Nishihara, the Honorary Chair, Dr. K.R. Suresh Nair, CTO-NeST Group as General Chair, and Prof. S.M Sameer of NIT, Calicut as the General Co-Chair. Sameer, the venue and coffee breaks were free. Currently, IRC had expensed approximately US\$680 to the Industry Speaker. IRC offered student travel fund (STF) of US\$300 to 20 students to attend SIT and 18 STF awardees attended and provided good feedbacks.

An **Industry Visit** was also kindly organized by Mr. Amarnath Raja, the Chair for SIT Program in IEEE TENCON 2019, on 20<sup>th</sup> October 2019 to Kerala's Maker Village (<https://www.makervillage.in/>), the country's largest electronic incubator pioneered and introduced by the Indian Government. Some pictures from the engagement there were kindly facilitated by Maker Village CEO, Prasad Balakrishnan Nair, who arranged this tour for delegates from about 19 IEEE R10 (Asia-Pacific) on a Sunday!!!!

## Feedbacks, Observations and Suggestions

A few points were observed and we would like to share and suggest the following.

1. **Setting of SIT Program:** Embedding a full day SIT co-located with the normal paper track under academia environment, as per Prof. Takako Hashimoto's vision was indeed successful. This provided a professional networking platform for Region 10's SYW to interact with the industry. It would be more beneficial if booths sponsored by companies could be provided for further SYW and industry interactions and discussions.
2. **Location and topic:** There were also feedbacks to have the full day SIT program on different days from the normal paper track so people could attend both.
3. **Presentation format:** There were feedbacks expressing that panel discussions are more informative than presentations. The attendees were interested also in learning the experiences shared by industry speakers on how and where things went wrong. Hence, we are suggesting having more interactive panel discussions in the future.
4. **Internship, Entrepreneurship, Startup Pitching Contest:** As this is the first time we are organizing SIT program, with the experiences learned this year we should further promote internship, **entrepreneurship, Startup Pitching Contest**, etc. next year.
5. **Conferences to organize SIT:** In addition to the flagship TENCON conference 2020, we may also like to organize SIT especially in our SYWL conference which is most suitable for these program aimed at bridging academia and industry.
6. **Early Promotion:** There were also feedbacks requesting to have SIT program released earlier on the conference webpage to provide more lead time for interested attendees in better planning. Due to the short time pressure this year, we should try to start program organization earlier next year and hence announce the SIT program in all corresponding conference early on.

## Acknowledgements

In addition to our most sincere gratitude to the eminent speakers below for their insightful visions and contributions:

- Mr. Jaswinder Ahuja, *Cadence, India*
- Dr. Gopal Pingali, *VP IBM India*  
Dr. Amit Kumar, *CEO BioAxis, Hyderabad, India*
- Dr. Kush Agarwal, *CEO Wave Scan, Singapore*
- Prof. Jong-Hwan Kim, *KT Endowed Chair Professor, KAIST Korea*
- Mr. Allabaksh Naikodi, *Mahindra Electric*
- Dr. Ananth Krishna, *CEO, iAMPS*
- Mr. Mustafa Wajid, *Meher Group*
- Tarun Kumar, *Chief Information Security Officer, Nissan Digital India.*
- Atul Gupta, *Leader – IT Advisory (Risk Consulting) and Cyber Security, KPMG*
- Rohit Anand, *Director & Partner, Tanisi IT Services P Ltd*
- Vikas Kapoor, *VP, Cyber Security, Vodafone Shared Services*
- Lince Lawrance, *Director, Cyber Security Advisory, Ernst & Young (EY) GDS*
- Sarada Jayakrishnan, *DGM Terumo Penpol*
- Jijo G John, *CEO Calpine Group, Infopark Kochi*
- Shalini James, *CEO MANTRA*

We would like to also express our most sincere gratitude to the SIT Program Chair, Mr. Amarnath Raja, MC Jayakrishnan, Professional Activities Chair, Kerala Section, and Harish Mysore, Director of IEEE Indian Operations, in leading the IEEE Kerala Section and IEEE Indian Operations in delivering the most excellent program within such a short period of time.

Finally, we would also like to thank the Organizing Committee of IEEE TENCON 2019 and Secretariat for all the support and excellent job well done!



Mr. Jaswinder  
Ahuja, Cadence, India



Dr. Gopal Pingali, VP  
IBM India



From left: Amit Kumar, Nirmil Nair,  
& Kush Agarwal





Industry Visit at Maker's Village

Local news also reported on this even on the web with links as follows.

[https://www.thehindubusinessline.com/info-tech/ieee-delegation-lauds-initiatives-of-maker-villagekochi/article29758313.ece?fbclid=IwAR1\\_zetrCcSGs8rskiSgKkBANACN937I4K101ENPk4yrgeCt2cKZHxJnaU](https://www.thehindubusinessline.com/info-tech/ieee-delegation-lauds-initiatives-of-maker-villagekochi/article29758313.ece?fbclid=IwAR1_zetrCcSGs8rskiSgKkBANACN937I4K101ENPk4yrgeCt2cKZHxJnaU)

<https://timesofindia.indiatimes.com/city/kochi/foreign-delegation-all-praise-for-maker-village/articleshow/71695801.cms?fbclid=IwAR3zxqMCNghUEHJ7gPeJTsY9MxPpMrAY6JKQva9js9hk7kf1Fp4r8nexxvw>

<http://b-live.in/maker-village-world-class-say-intl-experts/?fbclid=IwAR1HtsHKMDO720KZ9O3eSyMfPpTBkylx9DYDnN8dZGkw7yhTmjWNi4cnb8>

# WIE Track at IEEE TENCON 2019

Written by: Mini Ulanat, Chair WIE AG, Kerala Section

IEEE TENCON 2019, the Flagship conference of IEEE Region 10 was held during 17<sup>th</sup> to 20<sup>th</sup> October 2019 at Grand Hyatt Kochi Bolgatti, Kerala, India. The 4-day international conference of IEEE Region 10 was inaugurated by Hon Governor of Kerala Shri. Arif Mohammed Khan inaugurated the conference on Friday, 18<sup>th</sup> October at 10am. Dr. Akinori Nishihara, Director, IEEE Region 10 presided the function. In his inaugural address, Hon. Governor Arif Mohammed Khan raised a concern over the low participation of women in core engineering jobs. The IEEE Region 10 WIE jointly with IEEE Kerala Section WIE AG organized the WIE Track held on the sidelines of TENCON 2019 on the 19<sup>th</sup> October 2019. As part of the R10 WIE Track, all the WIE members of the AG were invited to attend the sessions.



The WIE Track showcased the capabilities of two women steering the wheel of technology in two different ways. Dr. Mini Ulanat, chair for Kerala Section WIE AG, welcomed the gathering. Ms. Jyothi Ramaswamy, Vice Chair WIE AG introduced the two guests. Ms. Mary Ellen Randall, Fellow IEEE took us through her career advancement and IEEE role progression. She gave a detailed picture on the challenges faced and how she overcame it. She started with her early influences, took us through her IEEE life and how MOVE was conceptualized. She concluded with a famous quote of Maya Angelou that *I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.*

Ms. Prema Sankar, an Engineer by education turned wellness expert took a workshop on *Meet Your Future Self*. She is a self-taught healer who helps in finding clarity, attain inner peace and increase one's well-being. The participants felt energized, fresh and motivated. She made things so simple, light and fun.



There was a good interaction from the audience. The session concluded with a memento presentation by Dr. Bijuna Kunju. Prof. Sunitha Beevi, former Chair for Kerala Section WIE AG delivered the vote of thanks. In short the WIE track was well received by the participants and the organizers have received excellent feedback and request for organizing more of such events. WIE Affinity Group of the Year Award was presented to Kerala Section on 18<sup>th</sup> October by Prof. Takako Hashimoto and Ms. Mary Randall. The organizers are extremely thankful to R10 WIE committee, Ms. Emi Yano, Prof. Takako Hashimoto, Kerala Section Excom and all the participants for their excellent support.





## WIE Track at IEEE R10HTC 2019

### Women Movement in Engineering & Technology for Humanity

Written by Agnes Irwanti, Committee of R10 WIE

This year, IEEE Indonesia Section receives the honor to host IEEE R10 HTC. The conference took place in Universitas Indonesia, from 12<sup>th</sup> to 14<sup>th</sup> November 2019. It is a premier annual cross-disciplinary conference that brings together technologists, engineers, scientists, investors, representatives from NGOs, governments, academia, and industry. The conference promoted discussions and development of Electrical, Communication, Computing, Security, and Disaster Relief areas to present results of recent advancements in technology in order to improve the lives of impoverished.

In conjunction with this event, WIE R10 organized a panel discussion and WIE video project competition. The track was held on 13<sup>th</sup> November, with the theme of *Collaborative Social Project for Women Empowerment*. 5 inspiring women in engineering field shared their thought: Prof. Takako Hashimoto delivered the topic of *Women Social Projects for Achieving SDGs*, Emi Yano talked about *Social Project Program for Rural and Urban Area in R10*, Prof. Riri Fitri Sari delivered the topic of *Facing the Reality of Women Empowerment Project in Education and Engineering*, Prof. Celia Shahnaz shared the topic of *Social Project in Biomedical and Engineering Implementation*, and Cut Noosy Keumalafajri delivered the topic of *Success Story of Women Empowerment in Telco Industry*. This session was led by Dr. Karlisa Priandana from Institut Pertanian Bogor.



Nowadays women have broader chance to receive higher education and expand their knowledge in unlimited ways. These should promote more movements whereas women make bigger impact on societies through the use of technology. Through this track, the participants were able to enhance their network and have fruitful discussion about future collaborative social projects for women empowerment, including information of some funding possibilities.



As for the WIE video project competition, there were two categories: completed and ongoing project. The topic is *Women Movement in Engineering and Technology for Humanity*. The video must record activities of exploring, initiating and developing engineering for humanities purposes and have duration of not more of 3 minutes. Later on the participants need to upload it in Youtube platform. Three finalists were chosen and invited to the track to give presentation of their projects. After a tight scoring and evaluation from the judges, two best videos were chosen as winners. The first winner is Widiya Tria Putri Hidayat from Telkom University with project title *Women Empowerment on PATRIOT-net*, and runner up Dr. Karlisa Priandana from IPB University with project title *Women of IPB University: Introducing Engineering through Events and Projects*.



# PACE Workshop at IEEE R10HTC 2019

Prepared by: Nirmal Nair, Chair for IEEE Region 10 Professional Activities Committee (PAC)

Through the September-October R10 Newsletter, I had shared the vision, objectives and project directions of 2019 R10 Professional Activities Committee (PAC). The committee designed and initiated the inaugural R10 PAC Challenge proposals from Sections/Councils and affinity groups around new Professional Activities Committees of Engineers (**PACE**) initiatives/projects for funding. The invitations for these PACE initiatives were around three potential formats as under:

- **R10 PA Challenge** – Proposals for initiatives targeted like lifelong learning (non-technical), communication/public speaking skills, developing consultant database etc. particularly for long-term members.
- **SMARTECH/HARDTECH** or IEEE Future Direction stand-alone workshops for enhancing R10 members' career and life-long learning needs.
- **PACE tracks or activities during R10 conferences** like TENCON, TENSYP and HTC.

Our committee recommended **five** original innovative pilot proposals for R10 funding, approved by the R10 Director. In this report, we would like to highlight through pictures the organization and outcomes from the **2019 R10 PAC Challenge Winner USD \$1000 (GOLD event)** titled **“Professional Career Developments”** organized by Indonesia Section.

**IEEE REGION 10**

**PROFESSIONAL ACTIVITY MINI-CONFERENCE**  
at The Margo Hotel Depok

**NOVEMBER 12, 2019**  
08:30 - 15:00

**REGISTRATION**

Link: [http://bit.ly/PAC\\_IEEEIS](http://bit.ly/PAC_IEEEIS)

Fee:  
IEEE Member: IDR 100 K  
Non-IEEE Member: IDR 150 K  
On the spot payment

For Further Information  
Contact Us:  
+62 812-9643-3390 (IEEE-IS)  
ieeeid2019[at]gmail.com

Sponsored by  
IEEE region 10 and IEEE INDONESIA SECTION

**ABOUT**  
For the growing Indonesian scholarly sector, the need for high-quality scientific publication avenues and professional networking opportunities are increasingly becoming necessary. Currently, there are 1500 IEEE members in Indonesia section who are availing of these opportunities and spreading the word amongst non-member colleagues. An IEEE international professional workshop is organized to highlight how scientific, academic, and research experts from other countries are using IEEE to support their careers. This workshop will help identify various innovative and cutting edge opportunities that the IEEE future platforms provide. Particularly to new members who are struggling with their professional career directions. This workshop will also showcase local expertise, best practices, and government initiatives through demonstration and inspirational presentations. Attending this high-profile event will provide excellent local and international networking opportunities.

**WELCOME REMARKS**

**Prof. Wisnu Jatmiko**  
IEEE Indonesia Section Chair

**SPEAKERS**

**Prof. Akinori Nishihara**  
IEEE Region 10 Director  
Talk: Professional Career Development as Academician

**Prof. Nirmal Nair**  
IEEE Region 10 Professionals Activity Chair  
Talk: IEEE Future Directions, HARTECH and SMARTECH for Career Enhancement and Life-Long Learning Needs

**PRODUCT DEMO**

**Chairul Hudaya, Ph.D.**  
IEEE Indonesia Section Professional Activity Coordinator  
Demo: Smart City Universitas Indonesia

**Prof. Takako Hashimoto**  
IEEE Region 10 Secretary & Vice President of Chiba University of Commerce  
Talk: Women in Professional Career Development

**Prof. Dr.-Ing. Kalamullah Ramli**  
Former Director General of Post and Information Technology Implementation, Ministry of Communication and Information Technology of the Republic of Indonesia  
Talk: Required Government Policies in The Industrial Revolution 4.0 Era

**Kuncoro Wastuwibowo, M.Sc., MIET**  
Portfolio & Synergy Product Leader, Telkom Indonesia  
Tutorial: Smart City

Prof. Wisnu Jatmiko, IEEE Indonesia Chair opened the workshop followed by presentations from Prof. Akinori Nishihara (IEEE R10 Director), Prof. Takako Hashimoto (IEEE R10 Secretary and Vice President of Chiba University of Commerce), Prof. Nirmal Nair (IEEE R10 PAC Chair), Prof. Kalamullah Ramli (former Director General of Post and IT Implementation,

Indonesia) and Mr. Kuncoro Wastuwibowo (Portfolio & Synergy Product Leader of Telkom Indonesia).

The participants gained insights from IEEE speaker's diverse perspectives and professional backgrounds. Prof. Akinori Nishihara, delivered the lecture on professional career enhancement in academic environment. Prof. Takako Hashimoto talked about the role of women in professional career development, Prof. Kalamullah Ramli shared his experience as the former director general in a governmental body and in the same time delivered the lecture on required government policies for industrial revolution 4.0, Prof. Nirmal Nair highlighted opportunities to engage with the IEEE future direction, HARTECH and SMARTECH areas for career enhancement and life-long learning needs, while Mr. Kuncoro Wastuwibowo shared his professional experience in industrial environment and delivered tutorial on smart city.

After lunch, about 2 hour of product demonstration showcasing e-portable energy storage system based on lithium ion batteries developed and electrocardiogram (ECG) developed at University of Indonesia. This provided

opportunities for workshop attendees to network with local and international attendees. [Listrik Indonesia](#) (embedded link) local online media covered this mini-conference.



**Participation and Engagement during the PACE event held alongside IEEE R10 HTC 2019**

Not secure | listrikindonesia.com/insinyur\_teknik\_electro\_sedunia\_gelar\_mini\_conference\_profesional\_activity\_4707.htm

## Insinyur Teknik Electro Sedunia Gelar Mini Conference Profesional Activity

Author : @MLI\_Fr Dibuat : Nov 18, 2019

**Local Media Coverage of R10 PACE Event held alongside IEEE R10 HTC 2019**

**IEEE R10 PAC Website:** [www.pa.ieeeer10.org](http://www.pa.ieeeer10.org) **IEEE R10 PAC Contact email:** [ieeeer10pac@ieee.org](mailto:ieeeer10pac@ieee.org)

**2019-20 IEEE R10 PAC CHAIR:** Nirmal NAIR (New Zealand North) [ncnair@ieee.org](mailto:ncnair@ieee.org)

**2019 R10 PAC Members:** Haewon JUNG(Past PA Chair, KR), Chris LEE(IRC Chair, TW), Michael ONG(CTS Chair, SG), Daniel EGHBAL (Past Section Chair, AU), Kojiro NISHIMIYA(Past YP, JP), Shubham GUPTA (YPAG, IN) and Fawnizu HUSSIN(Section Chair, MAL)



## LM Track at AISYWC 2019 in Hyderabad, India

Written by: S V Sankaran, Chair for R10 LM Committee (with help from Mangal & Balasubramanian)



*From left to right: Juser Vasi, Kannan Rajagopalan, Atul Negi, Madhu Mangal, RK Asthana, R Balasubramanian, PV Ekande, SV Sankaran, S Sundaresh, CR Sasi, Lawrence Jenkins, TS Rathore*

The All India Student-Young Professional–Women in Engineering Congress, AISYWC, is an annual event in India organized by the IEEE India Council. Taking the cue from the biannual R10's SYWL Congress that includes the LM Track, it was proposed to append an LM Track to this year's AISYWC, which was gladly accepted by the India Council. Hyderabad Section who conducted the AISYWC agreed to provide the necessary support. Prof Charles Turner of HQ LMC gave an enthusiastic green signal and indication of support for the budget. So the LM Track at AISYWC was conducted on 29<sup>th</sup> September in Hyderabad at the CMR Institutions campus.

Prof. Sankaran, R10 LMC Chair, welcomed the attendees and opened the session with a brief on the background of how this LM Track came to be a reality. The track was attended by 14 LMs from various Sections of India including Chair/Vice Chair of all the 5 LMAGs in India – viz. Delhi (Chair Mr P V Ekande), Bombay (Chair Prof. Juser Vasi), Hyderabad (Chair Prof. R Balasubramanian), Bangalore (Chair Prof. Lawrence Jenkins) & Kerala (Vice-Chair Dr. Madhu Mangal) .

The special guest was Dr. V Prasad Kodali, IEEE Fellow and Past R10 Director, and one of the senior most LMs in India, presently based in Hyderabad. Dr. Kodali delivered an invited talk on *History and Contributions of LM grade in IEEE*, which was very informative to all LMs. It was decided in April 2013 LMC meeting to compile the history of LM grade and LMC and the task was assigned to Dr. Kodali & Dr. Ralph Wyndrum. They compiled information from historical archives, interviews and IEEE History Center and updated the history from 1894 to 2014.

LM started in 1884 with AIEE, then with IRE in 1947 and continued with IEEE in 1963. Kodali traced the formation of LM related committees, including designation as LMC in 1992 and making LMC a Standing Committee of MGAB in 2010. He recounted the key activities and initiatives over the years, the institution of fellowships & awards, establishment of IEEE History Center, special projects and outreach to students, engineering education, etc. It was a nostalgic tour for the LMs.

Kodali's talk was followed by address by Sankaran who spoke on *Some IEEE experiences and vision of some things for IEEE*. He gave an overview of LM numbers worldwide, in R10 and in India, the LMAGs





growth in R10, support available to LMAGs from R10 and HQ LMC and also mentioned about IEEE milestones in R10. He recounted some of his enriching experiences as volunteer in IEEE, and networking in particular. He also outlined his idea of *IEEE Laureate Forum* for the future of IEEE and benefit of young researchers in engineering fields.

This was followed by brief speeches by some of the LMAG Chairs. Ekande of Delhi LMAG

spoke mainly about fund constraints and lack of participation by members in his IEEE experience. Vasi of Bombay LMAG explained about activities of Bombay LMAG, about interactions of LMs with students and young professionals, and a rooftop solar survey project they undertook in Bombay city. Balasubramanian of the new Hyderabad LMAG spoke on the LM activities that are planned for 2019.

The next session was a Panel Discussion, with the theme *Experience of LMs with IEEE and giving back to IEEE & Community as LMs*. Jenkins of Bangalore LMAG was the Moderator and initiated the panel with some opening remarks and invited LMs R K Asthana of Delhi, Madhu Mangal of Kerala and T S Rathore of Bombay to kick-start the session with their thoughts on the theme. They recalled some of their IEEE experiences and made suggestions for LM activities. The discussion was then thrown open to the audience; a lively exchange with the LMs in the audience followed, relating individual IEEE experiences, anecdotes, reach out to students and so on. Kodali appealed for focus by LMs on school & college students, explore possibilities for new IEEE Milestones in India, increase the winning of IEEE Field Awards by Indians and revive the earlier mooted regional budget to provide for annual meeting of LMAG Chairs.

Jenkins concluded the Panel Discussion with observing the need to reflect on how much the world has changed and the need for innovative ways and means of finding solutions for the many challenges, where LMs can certainly contribute. Sankaran then did a wrap up of the LM Track, expressing hope that the LM Track would become an integral part of the AISYWC from the year 2020. He thanked the speakers, the special guest and all LMs for their contribution, and expressed special thanks to Hyderabad Section Chair Mr N Venkatesh, Secretary Mr Bala Peddigari and their team for the outstanding arrangements & support of the event.

This LM event's highlights, besides all the above, were the meeting of several LMs from various India Sections after many years, the personal interactions & camaraderie that was witnessed among the LMs and their eagerness to contribute as LMs. An unexpected charm was added to the event - the day was the birthday of Prof M Vidyasagar, LM of Hyderabad, who was attending. Hyderabad Section graciously arranged for a birthday cake and cake cutting by Vidyasagar, who expressed joy in celebrating his birthday with the IEEE extended family.

# WIE International Leadership Summit 2019 - Islamabad

Written by: Zoha Rashid, Chair of IEEE WIE ILS'19 Islamabad & Head Publications for WIE Islamabad

In the spirit of reshaping the idea of women empowerment and leadership through science and technology, **IEEE WIE ILS'19 Islamabad**, awarded to **IEEE WIE PIEAS Affinity Group** in collaboration with **IEEE WIE Islamabad Section (WIE ISC)** in the Asian Pacific – Region 10, was hosted in Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad on 27<sup>th</sup> October 2019 under the theme of *The Broken kind of Beautiful*. Over the past years, this summit has been a success throughout the world in inspiring women to develop leadership qualities, expand their social & professional network and succeed in their professional lives. IEEE WIE ILS'19 Islamabad was no less than another exciting journey full of unique ideas, people and their precious works, that surely helped our rising leaders to shape their future.

With the same determination of making WIE ILS'19 Islamabad the pinnacle of the flourishing international summits, WIE PIEAS AG came up with the very concept of celebrating the unheard voices of struggles, scars and challenges that build up a mountain of success. The event enticed students and young professionals from various academic domains, eager to resonate with and learn from speakers and their stories of professional development. Hence, to provide a platform for exchanging crucial professional career development practices, renowned women leaders from across the country were invited to share their professional journey.



Keeping in view the diverse community of our region, WIE ILS'19 covered a diverse array of sessions including 9 speaker sessions and 3 workshops, focused on Leadership, Empowerment, Entrepreneurship and Emerging/Future Technology. Commenced with a welcoming ceremony, the summit included inspirational talks such as *Living an Extraordinary Life* by Dr. Munazza Yaqoob, *Empowering Women Through Technology* by Quratulain Fatima and *Youth and Leadership* by Ismat Shahjahan. Speakers encompassing the technical domain were, Zartaj Waseem, PSSEC Co-founder, who talked about *Mission to Mars*, Natasha Khan from CERN FESA, who shared her experiences about *Journey Towards Accelerating Science*, Soniya Rudhani, who talked about *Women in Tech: Challenges and Opportunities* session and Maryam Aslam from WTM and GDG Islamabad, who hosted the *Google Firebase Workshop*. On a lighter note, the summit also included interactive sessions such as, *Knowing/exploring/unleashing your inner strength* by a Pakistani tri-athlete, Noorena Shams, *From Mountains to Mangroves: Overcoming fear during my travels across Pakistan* by freelance journalist, Rina Saeed Khan, *Google #IamRemarkable Workshop* and *Facilitating Tech-Curriculum Workshop* by WTM, GDG Islamabad and GDG Cloud.



Inevitably, women from all fields and not just the diverse engineering fields united at WIE ILS'19 to form links between different career perspectives and challenges, pitched in their own whirlpool of ideas to make a more positive impact and benefited more wholesomely by embracing differences. More Importantly, WIE ILS'19 Islamabad succeeded in creating a community with a stronger force of individuals who can fight bigger challenges and learn from their failures, avail and create opportunities, identify and bridge gaps, uplift each other and work towards crafting a beautiful Kaleidoscope of uniqueness and abstraction.

# R10 SAC Operations Manual

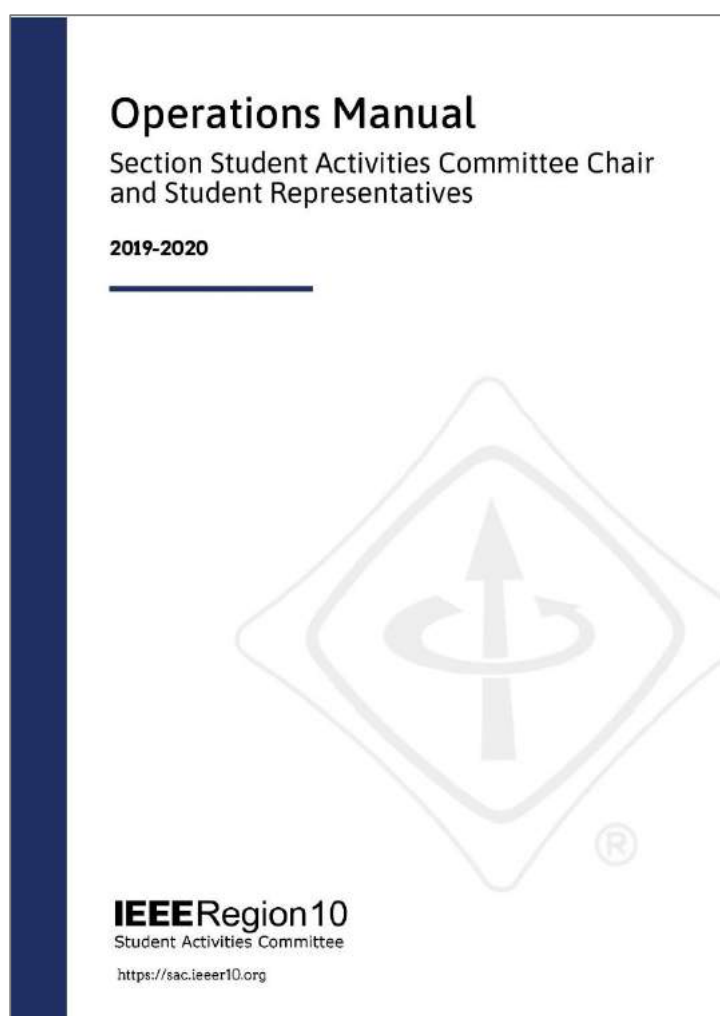
**Prepared by: Huynh Thi Thanh Binh, R10 Student Activities Committee Chair, and Saaveethya Sivakumar, R10 Student Representative**

We are pleased to release the first version of IEEE Region 10 Operations Manual for Section Student Activities Committee (SAC) Chairs and Student Representatives (SSR). This document issued by IEEE Region 10 provides guidelines for Section SAC Chair and SSR for conducting student activities, managing student branches and streamlining their operations.

Please view and download the R10 SAC and SSR operations manual via the following link: <http://bit.ly/R10SACnSSR>

As the Region 10 Student Activities Committee, we believe that this Operations Manual will assist in streamlining operations of student activities in respective sections.

Please feel free to provide us your constructive feedback for possible amendments in future releases. For any enquiries and feedback, kindly contact us at [r10sac@ieee.org](mailto:r10sac@ieee.org)





## R10 SAC Joint SB Fund

Prepared by Amesh Gomes and Saaveethya Sivakumar, R10 Student Representative

The Joint SB Initiative Fund 2019 was created so that the inactive, struggling or newly formed student branches (SB) will have guidance and direction in order to be active. The events involve at least 2 SBs, one that is currently inactive or struggling and another that is highly active. The events were conducted in the period of August to November 2019. The Joint SB Initiative Fund successfully funded 12 events across 10 sections which impacted more than 60 SBs across the Region.

### IUB-BZU Joint Venture (Lahore Section)



The joint SB initiative was conducted between Bahauddin Zakariya University, and Islamia University of Bahawalpur. The event was a two-day event in which the first session was conducted on the 25<sup>th</sup> September while the second session was conducted on the 12<sup>th</sup> October at the IEEE Asia/Pacific ComSoc Summer School 2019, which comprised of a total of more than 300 participants. The program comprised an Orientation and Membership Campaign, a technical seminar followed by an ExCom meetup and interactive session.

### Joint Venture (Islamabad Section)



On 22<sup>nd</sup> October 2019, Joint Venture was jointly organised by IEEE Islamabad Section, Capital University of Science & Technology, Taxila Univ of Engineering and Tech, Sir Syed Ctr for Adv Studies in Eng Inst of Tech, and Fatima Jinnah Women University, Rawalpindi. The event consisted modules for students to engage and understand the smooth flow/operations of IEEE. Seminar about membership development, meeting between IEEE Islamabad Section and officers of Active SB and Dormant SB was conducted. The section SAC Booklet was distributed. At last a special IEEE Day 2019 celebration took place.

### TRIDENT 4.0 (Pune Section)



The TRIDENT 4.0 Hackathon was a two-day event, conducted on 20<sup>th</sup> & 21<sup>st</sup> September 2019 that was jointly organized by AISSMS Institute of Information Technology, G H Rasoni College of Engineering and Management, Symbiosis Institute of Computer Studies and Research and AISSMS College Of Engineering, Pune-01. The idea behind this event was to give an opportunity to young and older ones alike to come and experience the excitement of ideation, support problem solving and contribute to nation building. The jointly proposed activity was a two-day hackathon hosted together by all the four colleges.

### IEEE Karachi Section Joint SB MEETUP (Karachi Section)



The event was organized on 9<sup>th</sup> October 2019, in collaboration with IEEE Karachi Section and Balochistan Univ of Info Tech (BUIITEMS), Eng and Mgmt Sci and Jinnah Univ for Women. The event started with an introductory session on introduction to IEEE followed by a networking tea between Extended Ex-Com of SBs and emerging volunteers who are found to be next office bearers. The program consisted of a sharing sessions from BUIITEMS SB regarding achievements and progress of their activities, whereas Jinnah Univ for Women SB shared about different kind of activities which were conducted in the past and a discussion on possible improvements for future. A special WIE sessions were also delivered on SB and WIE AG Governance.

### Joint SB Initiative (Bangladesh Section)



120 participants from seven SBs across Bangladesh Section participated in the event held at IEEE BUET SB, Dhaka on 13<sup>th</sup> September 2019. The event was jointly organized by IEEE AIUB Student Branch, IEEE BUET IEEE AIUB SB, IEEE NSU SB, IEEE BUBT SB, IEEE JnU SB, Leading University SB, and IEEE World University SB. The event consisted of sessions on IEEE, benefits of IEEE Membership, VTools Reporting and best practices of various IEEE SBs and entities such as WIE and YP, Technical Sessions on Nuclear Power Technology and Emerging Research and Technical Activities in IEEE. A panel discussion on Entrepreneurship Bootcamp was held. Special sessions such as authorship workshop and an interactive session on Social Impact Analysis of Humanitarian Technology Projects were also conducted.

### IEEE Karachi Section Joint SB Get together (Karachi Section)



Student Activities Committee of IEEE Karachi Section organized *IEEE Karachi Section Joint Student Branches Get Together* between MUET, Jamshoro and BUKC, Karachi on 19<sup>th</sup> October 2019 at Dream World Resort, Karachi Sindh, Pakistan. The activity is jointly participated by Mehran University of Engineering and Technology and Bahria University Karachi. The event started with an introductory session for IEEE followed by a networking tea. Some of the key points discussed were SB officers' responsibilities, how to choose the suitable event as per the need of the time, engagement of non-IEEE volunteers, membership development, short time-work hard, team management, Vtools reporting, nominations procedure and technical chapter formation petition.

### Ayubowan IEEE (Sri Lanka Section)



On 27<sup>th</sup> October 2019, Ayubowan IEEE was organized with the aim of having an extensive awareness program about what IEEE is and how it stands out from many other technical societies. Ayubowan IEEE was a collaborative initiative between IEEE Sri Lanka section, Sri Lanka Institute of Information Technology, University of Sri Lanka and Uva Wellassa University. The event proceedings included interactive sessions with inspiring figures who have become successful through IEEE as well as the success story of the active SB. The event was a success with a count of more than 200 participants. The participants were given keen knowledge about the chapters, opportunities and benefits, as well as having their leadership skills enhanced from the outbound activities. As a result of the exposure to the event, Uva Wellassa University, considered comparatively inactive, managed to upsurge their membership to 80 members and was awarded the best student branch membership retention award Sri Lanka 2019.

### IEEE Nagpur Gabfest 2019 (Bombay Section)



On 21<sup>st</sup> September, GABFEST'19 - Joint SB Initiative was organized in association with Bombay Section and Nagpur Subsection along with 11 Student Branches. The Student Branches are namely; Priyadarshini Institute of Engineering & Technology Nagpur, G. H. Rasoni College of Engineering Nagpur, Yashwantrao College of Engineering Nagpur, Visveshwaraya National Institute of Technology Nagpur, S. B. Jain Institute of Technology, Management & Research Nagpur, Shri Ramdeobaba College of Engineering & Management Nagpur, J D College of Engineering & Management Nagpur, Cummins College of Engineering for Women Nagpur, Kavikulguru Institution of Technology & Science Nagpur, Priyadarshini College of Engineering Nagpur and Jhulelal Institute of Technology Nagpur. It witnessed a total participation of more than 250 delegates which acted as a platform that brought together professionals to exchange of wisdom and acuity. It also trained the IEEE volunteers and made them aware of the various awards, scholarships and funding opportunities and services provided by IEEE.

## IEEE Tech Day – 2 (Bangalore Section)



On 24<sup>th</sup> August 2019, IEEE Tech Day – 2 was organized with a series of tech-talks by eminent personalities on various trending topics. The event was a collaborative initiative of IEEE Bangalore Section and seven Student Branches namely; Maharaja Institute of Technology Mysore, Sri Jayachamarajendra College of Engineering, Vidya Vikas Institute of Engineering & Technology, Vidya Vardhaka College of Engineering, National Institute of Engineering-Mysore, GSSS Institute of Engineering and Technology for Women and Vishwa Vidyapeetham-Mysuru. The event welcomed 300 participants. As a result of the successful execution of the event, GSSS Institute of Engineering and Technology for Women (which had 1 member before the event) increased their membership count to 113 (as of 16<sup>th</sup> September 2019).

## ZEAL (Kerala Section)



ZEAL Kerala Section joint SB initiative was a five-day program reported on 5<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> September and 11<sup>th</sup> and 12<sup>th</sup> October 2019. The event was conducted in collaboration with IEEE GECI Branch at the GECI Campus. The volunteers reached out to the students in each class and gave them an insight into the world of IEEE and the possibilities it holds. The students were also notified of the Excomm positions up for nomination. A one-day workshop on Python, an IEEE Orientation Programme, and a two-day hands-on Django workshop was held. As a result of the joint SB initiative, the IEEE SB of GECI became more active, increasing its membership count from 8 to 75. From a hibernate SB to an operating one, GECI was given an idea of how to conduct technical events.

## Makerthon 2019 (Malaysia Section)



The Makerthon had been successfully conducted on the 11<sup>th</sup> - 13<sup>th</sup> October by IEEE USM Student Branch, in collaboration with IEEE UniMAP Student Branch and USM WIE Student Chapter. This 3-day event provided a platform for the participants to show their creativity and make an innovative prototype that provide solutions. In the first two days, the participants were brain-storming their ideas on solving daily life problems and prepared their prototype to present their ideas. On the final day they showed how their prototype works and explained how it will function in real life.

## Phoenix 1.0 (Bombay Section)



On 11<sup>th</sup> September 2019, Phoenix 1.0 was organized between IEEE Bombay Section and 15 Student Branches. The collaborated Student Branches are; Universal College of Engineering, TERNA Engineering College, SIES GST, Vidyalankar School of Information Technology, Mahatma Gandhi Memorial College of Engineering and Technology, Don Bosco Institute of Technology, Vidyalankar Institute of Technology, Shah and Anchor Kutchi College of Engineering, Vidyavardhini's College Of Engineering & Technology, Lokmanya Tilak College of Engineering, Fr Conceicao Rodrigues College of Engineering, St. John College of Engineering and Management, MET Institute of Computer Science, KJ Somaiya Institute of Engineering and Information Technology, and MH Saboo Siddik College of Engineering. Phoenix 1.0 took an energetic beginning where a total of 140 participants came together and got involved with variety of speaker sessions on the aspects of technical grounds involving discussions of AI/ML and LoRaWen technology. The orientation made students to get in view of more and more understanding about the topic of new technology and its career scopes.



# R10 SAC Leadership Training & Membership Development Fund

Prepared by Amesh Gomes and Saaveethya Sivakumar, R10 Student Representative

The Leadership Training And Membership Development Fund 2019 was created to persuade sections to organize activities between Student Branches, student members and branch counselors giving training on leadership, successful execution of student branch program and to run membership drives aiming to enhance student membership and its retention. The Leadership Training And Membership Development Fund 2019 funded 6 events across 6 sections that included 56 student branches in the region.

## IEEE Leadership Outreach Meet (Kharagpur Section)



IEEE IIT Kharagpur Student Branch organized the IEEE Leadership Outreach Meet on 30<sup>th</sup> October 2019 at IIT Kharagpur. About 80 participants from various disciplines and various academic programs were present. Invited speakers gave talks on *Planar Periodic Impedance Surfaces: Engineering and Applications*, and *IEEE – A Partner in an Engineer's Journey*. The information about the awards and opportunities provided by IEEE became accessible to the student members through the event. The event helped to disseminate some of the recent and less-known services/opportunities provided by IEEE.

## IEEE Islamabad Section Leadership Summit (Islamabad Section)



On 5<sup>th</sup> October 2019, IEEE CUI Wah Student Branch in collaboration with Student Activities Committee (SAC), IEEE Islamabad Section, organized IEEE Islamabad Section Leadership Summit 2019. The event welcomed more than 100 participants with the theme of Innovation and Empowerment. Leaders from different industries and academics came and shared their knowledge among future leaders. There were 2 seminars, 3 workshops and other activities held during the event. Executive Committee Members of their respective Student Branches also participated. All the activities were related to leadership, personality development, empowerment and trainings on IEEE Volunteer Tools.

## 2019 IEEE Malaysia Student Leaders Congress (Malaysia Section)



On 12<sup>th</sup> October 2019, IEEE Malaysia Student Leaders Congress was conducted, which comprised of more than 100 participants across 19 Student Branches at MaGIC, Cyberjaya. The event was opened to all IEEE Members and Student Members in Malaysia Section. A special IEEE Day celebration was conducted on the same day. Additionally, the award ceremony of Malaysia Section Best FYP competition was also held. Attendees to the Section Student Congress were offered three workshops namely; *Advancing Your Careers with IEEE*, *Funding Your Student Branch Initiatives & Earning Recognition*, and *Using Vtools to Report & Plan Activities*.

## TechnoVation: Explore, Innovate and Excel (Delhi Section)



From 18<sup>th</sup> to 20<sup>th</sup> October 2019, Punjab Engineering College organized TechnoVation which was attended by more than 400 participants. TechnoVation was also a host to binary geeks, a competition for all the coding enthusiasts and one of a kind 15-hour long hardware hackathon. The event hosted a workshop on Vtools (a data analytics platform used by the society) for all IEEE student branch chairs and vice chairs. To include a bit of fun and frolic in these three days, Technovation also hosted a FIFA19 and Player Unknown's Battlegrounds (PUBG) tournaments. The event was concluded with the prize distribution ceremony for all the winners of various competitions held in the previous two days.

### IEEE Leadership Training and Membership Benefits Workshop (Victoria Section)



IEEE Leadership Training and Membership Benefits Workshop was conducted by Victorian section on 17<sup>th</sup> October at Swinburn University of Technology, Melbourne. Sessions were delivered on best IEEE practices, event ideas, IEEE Student & YP membership benefits, leadership skills and financial management. Students and graduates were informed about the strategies to become a successful leader, the benefits of becoming an IEEE volunteer, the services offered by IEEE to recent graduates, tips on seeking right mentorship etc. There were sessions explaining Resume Lab, Mentor Search Portal, Collabratec, and vTools Reporting.

### Bombay Section SB Leadership Conclave – Nagpur (Bombay Section)



The event witnessed a total participation of more than 100 delegates including the Executive Committees of 13 Student Branches and Young Professional Members from within and beyond the geography. The event was hosted on 5<sup>th</sup> October 2019 at Ramdeobaba College of Engineering and Management, Nagpur. The event was drafted to target the Student Branch leadership to orient and channelize them properly in order to develop a proper understanding and details of Student Branch operations such as plan of operations, leadership and team management, officer and activity reporting and scaling the membership benefits properly. The leadership from Bombay Section and Nagpur Subsection briefed networking insights along with giving clear understanding of organizational stuff, as well as disseminated and shared their knowledge and experiences through interactive sessions, IEEE awareness programs, case studies, networking exposure, games and activities, and Student Branch competitions.

# OTHER ARTICLES



## 6. OTHER ARTICLES

### Interview with Akinori Nishihara

Director, IEEE Region 10

Interviewed by Prashant R. Nair, IEEE R10 Newsletter During IEEE TENCON 2019

**Interviewer:** *Very good afternoon, Professor Akinori Nishihara. At the outset it's a great honor to serve under you, the Director of IEEE R10, as the editor, and I'm very excited to work under your leadership. So I thought we'll just share, for the benefit of the IEEE R10 community, some of the initiatives. So can you trace the evolution and the history of the major events of IEEE R10 like TENCON?*

**AN:** Thank you very much for inviting me. It's my pleasure to be here, and I thank you and other editorial committee members of the Newsletter. We all look forward to the next issue of Newsletter. Well, TENCON started in 1980, and then later it became an annual event. Initially, TENCON was just a technical conference. Members just submit papers and present. But since last year, we included special sessions on WIE, Young Professionals and Students, and this year we've started a Special Industry Track. So I look forward to this new initiative directed by Chris Lee, Nirmal Nair and others. They worked very hard to prepare. Luckily, we have many industry people, so I hope we have a nice session tomorrow, and then the day after tomorrow there will be a tour. It's a new tryout and I hope it will be very nice.

**Interviewer:** *I was told that for the other events, the industry track was a huge success. We are also hoping that in TENCON it will be a great and it was your innovative idea to add on to the IEEE R10. Now, what about the HTC event? The Humanitarian Technology Event and how R10 started doing it?*

**AN:** Well, actually, Mr. Amarnath Raja proposed to have this Humanitarian Activities Committee (HAC) and also SIGHT Special Interest Group. So Region 10 is playing an important role in humanitarian activities, not only for Indian people but also other R10 members. I am very proud of this initiative. Region 10 HTC, Humanitarian Technology Conference, started in 2013, and since then regularly we are holding. This year it is being held in Indonesia. This track is also there in TENCON. I think it is very nice to have many occasions related to humanitarian activities.

**Interviewer:** *That's very interesting. I was told that we are doing the SYWL Congress in Bangkok in 2020? What are the plans and activities for that?*

**AN:** This is a biannual event. So last year this was held in August in Bali, Indonesia. Actually we started as a student congress, probably in Singapore, but then we created many affinity groups of young professionals and women in engineering, and then, recently there are many life members affinity groups so we thought why don't we integrate those activities and these groups can help each other.



Especially life member affinity group, members have a lot of experience so they can support young people like students and young professionals so both can learn from other parties. So I hope the SYWL Congress will be very interesting.

**Interviewer:** *What are the new initiatives from the IEEE EXECOM for the benefit of the members of R10?*

**AN:** Well, the biggest issues we are discussing now is realignment of the regions. There are 10 regions in the world and our Region 10 is the biggest. We have more than 30% of total membership. But in terms of voting members, we have 25%. One region has one director, so there are ten regional directors. But if we consider voting membership, we should have two and a half directors [laughs], so why don't we have more directors from our region? So initially I thought we can have two directors in Region 10, but IEEE Secretary Katherine Kramer says it's not possible according to the IEEE bylaws. Well, I don't fully understand her point [laughs], but if so then we have to divide our region into two. Or, the second largest region is Region 8 - Europe, the Middle East, and Africa. So we can create three regions from Region 8 and Region 10. But actually how do we split is very, very difficult.

**Interviewer:** *I understand the complexity.*

**AN:** Yeah, so we thought it over and created five options of splitting, and in August we prepared a discussion paper showing those five options with pros and cons and sent it out to all the section chairs. Now we've gotten the feedback from those sections and councils and we are now summarizing those feedbacks. We have some new proposals and options and we have to consider them and propose to the IEEE MGA Strategic Planning Committee.

**Interviewer:** *And of course it needs to be approved by the board of directors also.*

**AN:** Oh yes, yes, in the last stage, yes, but we need to have a consensus not only in Region 10 but also in Region 8. Also, the important thing is the US regions. If we increase the number of regions in this part of the world, then we have to ask the US to decrease the number of regions. Now they have six regions in the US so we have to ask them to reduce to five or four. This part is rather difficult. Another point is Region 8. Their discussion is still going on, so probably they will say they need more time.

**Interviewer:** *When will this process get over? It could take six months?*

**AN:** Well, it takes a long time. Now I'm serving as director for the next year, and in 2021-2022, Deepak [Mathur] will be the director. So for three years we already have the directors. And recently, we called for nominations for the next director-elect and we have nominations already. So the process of election already started.

**Interviewer:** *That is for 2023-2024?*

**AN:** Yes. So the earliest possible time is 2025.

**Interviewer:** *But the process has started. The ball has set rolling and it'll take time.*

**AN:** Yes. But I'm not very sure when the MGA Committee will have a consensus to go ahead.

**Interviewer:** *Right. Now I have a very exciting thing about IEEE, especially in India. You know the millimeter wave experiment of J C Bose. I mean, no one was paying any attention until IEEE brought out the milestone; it's a very exciting thing for every Indian, because everyone knows the work that J C Bose did. So what is the current status with respect to IEEE milestones in R10?*

**AN:** Well, we have more than thirty IEEE milestones, two were from India and very recently, last week, we had the first milestone from Australia, and the rest are from Japan. So I know that there are many potential milestones. We encourage Indian people to prepare and propose to the history committee of their milestone. There may be other milestones.

**Interviewer:** *In R10, there are so many dormant student branches. How do you propose to make them more active?*

**AN:** This is a difficult part. So the previous director Kukjin Chun, he tried to solve this problem. He asked section chairs in India and Pakistan to identify the problems but you know it is very difficult to identify. Some university student branches have closed down. From the regional committee, it is difficult to approach all these universities.

**Interviewer:** *It has to be done through the section chairs and the council itself. They should play a more active role in trying to revive the dormant student branches.*

**AN:** Yes, I think so. So Kukjin sought to suspend them.

**Interviewer:** *Dormant student branches?*

**AN:** No, no, no [laughs], the dormant student branches have no activities, but we can't do anything. You know, almost every day we have a proposal to establish a new student branch. But if a specific section has one hundred student branches which have zero student members then we may not allow the section to propose new student branches.

**Interviewer:** *A little drastic!*

**AN:** Yes, and it's not fair to penalize the sections, especially the active student members to establish student branches. They have no responsibility for other student branches, so we cannot do that.

**Interviewer:** *Interestingly, there's an Indian society for computers - the Computer Society of India (CSI). I was the CSO National Student Coordinator. There was like a thousand institutions. Out of them, three hundred or four hundred of them, they would not respond at all. You know, I would call them, I would email them - what do you do? [laughs] So you can't blame them - we are trying our best, but you can't blame the section or the chapter because they are trying their best also.*

**AN:** Right, right, yes.

**Interviewer:** *So thank you very much, Professor. It's a very nice interaction.*

**AN:** Yes, thank you very much.



# Interview with Deepak Mathur

## IEEE Region 10 Director-Elect

Interviewed by Prashant R. Nair, IEEE R10 Newsletter During IEEE TENCON 2019

**Interviewer:** A very good morning Mr. Deepak Mathur. We are very honored that you will be taking over as the IEEE R10 Director in 2021, following the footsteps of doyens like F.C.Kohli, Prasad Kodali and others. So, once you take over, what is your vision for IEEE R10?

**DM:** IEEE Region 10, as you know, is the biggest region of IEEE. The main strength of Region 10 is its volunteers. Their dedication, passion, commitment is utilized to the fullest and Region 10 has hence got further scope for growth, that is exponential growth. What I see is that there are challenges with Region 10; the problem is with retention of membership, especially in the student's area. So, I would like to focus on how to make a smooth transition of a member from a student to a young professional. I would like to come up with specific programs which will help our students to retain membership when they graduate and move into the wide beam.

Another very important area of Region 10 is the number of conferences. We organize good number of conferences, somewhere around 800 conferences in Region 10, but the major concern for us is the quality of the conferences and that we are bringing this into focus in many of our plans over the past three years. But we could not achieve much in that. This would be one of the many focus areas during my tenure in Region 10. In fact, I have already started my work in that direction. I would like to train more volunteers who gain knowledge in conferences, who learn how to organize conferences and how to bring quality into these conferences. So I have already started a program, the Conference Leadership Program, the first program was held this year in Goa, in India. Here, we trained 45 volunteers and this will be a continuous effort in Region 10 now onwards – we will be training more volunteers who will be knowing ins and outs of conferences, how to organize good conferences and they will not only organize the given conferences but the focus will be to help other organizers within the section, other institutions or wherever hand-holding is required.

Wherever the conference organizers do not know much about organizing the conferences, these volunteers should provide the hand-holding. As we see that there is quite an increase in the number of engineering colleges and institutes. Our researchers and academicians want to showcase their work. There are lots of conferences happening, I have seen interest in conferences, but our organizational units are hesitant in providing technical co-sponsorships. The reason is only one thing that they are not sure if the conferences organized will have the quality or not. Training of volunteers as also having more volunteers in this area is very much required and we are putting effort in that direction. The next Conference Leadership Program is being planned in Beijing. So I think that would be significantly helping in organizing good conferences in Region 10.

**Interviewer:** So you know, globally there is a love-hate relationship between IEEE and industries. So how do we expand the industry connect, anywhere in the world you see IEEE conferences, of course there is some participation, but is not to the extent needed I feel.



**DM:** You have already brought this point which is going to be one of the focus areas during my tenure. If you see the industry-academia collaboration, that is definitely happening and it has been happening in Region 1 to Region 6. Since the beginning, industries have been going to the good institutes for seeking innovation in their work and seeking improvement in their process. So the industry-academia relationship and collaboration was very well there in Regions 1 to 6. But as far as the Region 10 is concerned, especially in some of the countries in Region 10 like India, we had never seen that industry-academia collaboration. Many industries were having their own R & D houses and they were only doing their own research.

But the trend is changing and now you can see that the industry-academia collaborations are happening in a big way. All the big corporations, they are going to the academia; this is a kind of win-win situation where industries get solutions to problems through academia research but at the same time the academic institutes get a lot of funding to do cutting-edge researches. But my point is that, that somehow the industries are absent in our conferences. That is the main point and we are into publication-driven research, we have to bring industry-driven research. This is the point to brainstorm and I really do not have any solution right now in my mind but I am working on that. This will be the focus area and I invite suggestions on this through your newsletter or through your magazine on this thing. We want industries in conferences and we want to make a shift from publication driven research to industry driven research.

**Interviewer:** *I think even in TENCON there is a special industry track, so that is one way to start.*

**DM:** This is a good thing. But still I don't consider track as the proper industry-academia collaboration because track is happening independently. The industry that has come to the track does not know of the researches that are going on. So we have to brainstorm how to bring it to this and all the conferences should do this brainstorming so that in future we get this industry-academia relationship in our conferences.

**Interviewer:** *You are very passionate about humanitarian activities and SIGHT. Any special ideas and specific initiatives on the anvil.*

**DM:** As you know, that we have our tagline i.e. *Technology for Humanity*. I think in 2009-2010, IEEE identified this as one area where we should focus on. In Region 10 in the years 2011, 2012 and 2013, I as the humanitarian technology coordinator, also promoted this particular concept. Till today, we are in the phase of bringing awareness about humanitarian technology in our volunteers and members. They should work for the underserved people and how technology can bring benefits to underserved people. We are working on that and I always profess the two-pronged approach. One is how existent technology can do the improvement of the underserved people and another thing is how with research, we can create sustainable technology. So this is still in infancy I will say; but yes we have to look into that and we have to target all our technical developments for underserved people.

**Interviewer:** *Generally speaking, I think IEEE activities in India are on the upsurge. But any places for development, you know, avenues where we can scale up? Any strategies that you have in mind to scale up the activities in India?*

**DM:** See, I would not really like to discuss to one particular country; but in Region 10, you see, there is diversity. We have got countries like Japan, where we are doing (technologically) lot of researches and developmental work and there are under-developed countries and developing countries where we are still looking for that. So I would like to create a win-win situation that the countries that are already developed and under-developed countries; these sections should collaborate and go for the best practices being done in their respective sectors.

**Interviewer:** *Okay, Thank you very much. It was a very nice interview, I am sure that it will add a lot of value to our newsletter and all our readers across the IEEE Asia-Pacific region.*

## Interview with Dejan Milojevic

Former IEEE Computer Society President & 2019 IEEE President Candidate

Interviewed by Prashant R. Nair, IEEE R10 Newsletter During IEEE TENCON 2019

**Interviewer:** *Very good afternoon Dr. Dejan. I am Prof. Prashant R. Nair, IEEE R10 Editor. So I wanted to have an interview of your good self for the newsletter. So, you have been associated with IEEE in various capacities especially the IEEE CS president and member in the industry committee and so on. So, I wanted to know about some of the major initiatives that you took, like you know, the IEEE infrastructure conference. Can you just trace the evolution and the challenges, the origin of that?*



**DM:** Okay, so you know every effort is unique. We wanted to do industry conferences for quite some time. The Director of Engineering of Twitter approached me. At that time, the President of IEEE was Karen Bartleson who was very interested in industry participation in IEEE anyways and she wanted to have Twitter's participation in IEEE activities. And so, Karen invited me and we organized a small visit; we had the so-called chat in Twitter, went into the Board Room, listed a number of activities that we were going to do and one thing that we chose was a conference, an industry-specific conference where different companies can come and talk about the work that they are doing that is of potential interest to others. So, in this way everybody can share a bit of their experience, benefit others, benefit from others and yet not compromise their core ideas. So that's the history.

**Interviewer:** *Okay. And how was the impact of it after you took the first infrastructure conference?*

**DM:** So, let me first tell you about the first infrastructure conference. So as a reward for this great idea, both Twitter Director and I got to work, and we killed ourselves. It was not easy. So, you know, we were everything, we were Program Chairs, General Chairs, Program Committees, Panel committees, everything. We literally handpicked participants, we handpicked keynote speakers. When you're doing a new conference, there is no history so people don't know about it. So, you have to channel everything. That's the first one. And for the second one we thought we were wiser. We said we are going to organize program committee but then the program committee was not very well-versed. It was not trivial from us to coach them initially so we ended up postponing it for 6 months and now we are back. We are again recruiting, we have some excellent key notes in works and we already have some papers and presentations. So, it looks very promising.

**Interviewer:** *When is this happening, the next Infrastructure conference?*

**DM:** In San Francisco, in the end of April, I think its 26<sup>th</sup> - 27<sup>th</sup>.



**Interviewer:** *Very Interesting. So, I thought I will ask about, you know, some of the very wonderful initiatives that you initiated when you were the IEEE's CS president. So primarily the IEEE CS Computing Now. Can you share that experience?*

**DM:** So that one also has a long history. There used to be something called IEEE Distributed Technology Magazine and that one lost subscription base. It had interesting papers but not enough subscriptions. So we decided to try to do IEEE Distribution Systems Online which was very capably run by Jean Bacon but at some point we decided that was not much more than an electronic version of traditional magazine, even though there were a lot of innovations. And then they asked for a new thing and I was at that time taking over as an Editor in Chief of IEEE Distribution Systems Online and I proposed Computing Now and the idea there was to rely much more on Electronic Media to have short reports, videos, to have translated documents in Spanish and Chinese. Now there are a lot of things that are normal but at that time they were evolutionary. And then I formulated it also as a magazine at that time.

**Interviewer:** *So what about the Tech Trends?*

**DM:** Oh yeah, so Tech Trends is another interesting thing. I just completed the retrospective of Tech Trend. So if you email me, I can send you the preview of the document. It will appear in the December Issue, guest editor issue (via IEEE computer) and there will be another technical issue. So I think it informally started as a part of Industry Advisory Board that met twice a year - once at east coast and once at west coast of USA. I think at that time the lady who was running the marketing, Chris Jensen was using this opportunity to learn about what is new in technologies so she can, you know, do the marketing around us and I came at one of these meetings. Many ideas were discussed in these meetings.

I gathered a few buddies of mine and we just sat together, proposed a few things and then in December, I guess it was 2015 or maybe 2014, I don't remember anymore; we had the first announcement of Tech Trends. And then every other year we started more and more, so we went up to 10-11 people and then at some point we also decided to evaluate ourselves - how well did we do? So we had score cards. Normally put the scorecard in November and prediction for the next year in December. Now, Marketing picked up from there, they loved it and we ended up with so much coverage that we had about 80 million coverage at some point. It was huge and people loved it because it is light weight, it is easy to read and people are intrigued. Everyone likes prediction or they like to mock you if you fail.

**Interviewer:** *What about the IEEE CS 2022 Report? It had a major impact?*

**DM:** Yeah yeah, it was. So similarly to Tech Trends, but before those we wanted to come up with something for the members of the IEEE Computer Society. We didn't know what it was, so we met once about, I think it was around 2013 or maybe 2014 and I gathered people I thought were open-minded, who are entrepreneurial. I did not stop with either academia or Industry, I went for those people who I thought could contribute and then the others invited other people. So think it was again about 10 of us or so and then it reached a dozen. And the first meeting did not produce much, okay, so we had to meet another time, then at some point I said *"Enough meeting. Let's just do it. Let's just try it"*. We had the structure, the outline of the sections and then I asked John Walls, Past President at that time of Computer Society, he was the one before me, the President. I think it was 2012. He loved spreadsheets,

he loved formula and so he went off and did search in Explorer, I think ACM, Google and elsewhere to see how good we were in predictions. So, anyways that became couple of hundred, no, hundred and something pages document that was promoted as IEEE Computer Society's document. It was not a document of any individual publication, it was the whole society's. And then the impact was that a lot of other people started using it. They used it twice for the next strategic plan of Computer Society for (student) competition and many other things.

**Interviewer:** *What about the other events that you started?*

**DM:** So yeah, that's something else. It's also unique and as much as I would again like to say that we were extremely strategic and we were actually, but the final product was again a transformational original ideas and working with others to get to something that has the most impact. So the history is that at that time President Barry Shoop and I decided to organize an event at the intersection of two technical areas. Owing to the idea that IEEE is in a unique position to have participation from a broad spectrum of technology; he and I went back and forth a number of times until we ended up identifying intersection of AI, Machine Learning and Cyber Security. And we held the first workshop and I remember Barry was extremely optimistic and said "*We are going to write a document during the event, it is going to be the first time*".

But what it ended up being is that it took us much longer, few months, it was much less than traditional papers. And then we organized the second one and we were hoping; we will organize a grand challenge, but we failed to produce the document because producing yet another document was not as important. But we were just starting to define that grand challenge and then we organized a couple of other events in between (conference events) in Washington DC where we brought potential sponsors in one day, couple of ours. They were extremely interested. They stayed from two hours to two hours and forty-five minutes in the middle of a heavy traffic in Washington DC. So that shows some level of interest. And on the second day, we had a very hands-on workshop where we brought technologists. And now we are organizing the third event in again as a part which was another innovation. There are other things like RDS, industrial summit. So, that's the history.

**Interviewer:** *Thank you very much. It was a very short but a very nice interview. You know, wish you all the best for your next (election) next year.*

**DM:** If it happens.

**Interviewer:** We hope it will happen. Thank You.

# Interview with Stephen Welby

COO & Executive Director, IEEE

Interviewed by Prashant R. Nair, IEEE R10 Newsletter During IEEE TENCON 2019

**Interviewer:** *Very good afternoon, Stephen. We are very honored to have an interview with your good self for the IEEE Region 10 newsletter. A warm welcome to India. I'm Prof. Prashant R. Nair, I work as an Associate Professor of Computer Science & Engineering at Amrita University, Coimbatore, South India and I also edit the IEEE R10 newsletter. So, I understand you have a very complex task running the IEEE operations in 160 countries as also managing the staff. So could you highlight what were the key challenges when you took up this role?*



**SW:** Thanks. I've been here as the IEEE Executive Director for the last two years - coming up is my second anniversary. I've of course been a member of the IEEE for over 25 years and I'm very pleased to be honored as a Fellow of the IEEE, but taking on the management role for IEEE's business and staff operations has been a completely new experience. I think we've had great success over the last two years, making sure that all of our activities are focused on our volunteers and members. And in helping to move IEEE from a period of time where we were operating with deficit budgets to a much more structured financial process where we're doing much more structured budgeting and for the last year I hope, with two months left in this year to end the year in a very positive way. So we've introduced a lot of discipline, we've had to think about how we can become much more efficient and how we can operate and we're doing that to help protect and insure IEEE's future. That's the one thing I'm most focused on every day. It's not simply how do we deal with the problems we're dealing with at the moment, but how do we think about where IEEE will be in ten years, twenty years? What will our children's IEEE be like? And so I think it's been fantastic to be welcomed by members across the globe and particularly here in IEEE Region 10. I've really enjoyed all my interactions across Region 10.

**Interviewer:** *Nice to hear. So, you know R10 is a powerhouse in terms of membership, and you know India is a very important cog in that wheel. Are there any specific initiatives from the MGA or the Board of Directors, specific to R10 and India?*

**SW:** I think certainly the Board has recognized the growth in these regions and we've established, of course, the staff offices here in Region 10. Today we have offices in Bangalore, Beijing and Singapore that also serve large sections of Region 10. There's no other region that has that density of staff. It's a bit of a challenge from New York to stay in contact and help, but I have a large number of staff working for me here in the region and that's one way we stay connected and make sure that our programs are focused on the demands of the region. More importantly, I think that the Board recognizes the essentiality of this region, the growth in this region and the importance of the region's members. And



I'm looking forward to next year, in fact being the year of Region 10. Several major senior posts and the President of IEEE will be from Region 10. I'm hoping that helps us give a greater voice to the members of Region 10.

**Interviewer:** *Now if you take the many initiatives from IEEE, I think this Open Access is a very exciting new concept. Can you speak about that? What is in the pipeline?*

**SW:** So IEEE, if you look at our annual revenues around the world, around half of it comes from publishing research, our journals, our conference proceedings and all the other materials that we publish. And that model today is a subscription model. Typically, governments or research labs or universities subscribe to publications and get access, typically access to the digital publications that we publish. But almost every model around the world of subscriptions is going away. Today increasingly, folks demand access to material without charge and folks want to see debate jump from idea to idea. Researchers demanding a different model for the way that they publish. And that's a real business challenge for the IEEE. How do we provide the same quality and service that we do today in a different financial model?

So we've been talking about this for a number of years but recently it's become clear that particularly in Europe and increasingly the United States, that there's a shift in the model towards Open Access to be able to allow readers to access material for free, to have research funders or researchers themselves subsidize the publications. So rather than a reader pays, an author pays for this kind of model. IEEE's being trying to think that through. How we respond, how we make sure that we're servicing the needs of the authors, how does IEEE maintain the support of its mission, how we stay true to our goals with a change in business model. The bigger picture for me is Open Science, and that's simply open access as a business model but how does IEEE accelerate debate and that's happening both through major initiatives - we have open access, being run out of PSPB and the Technical Activities Board, but also there are activities looking at research reproducibility, we're looking at new models for engaging authors, all the work happening around, how do we support the research environment? I think that's very exciting.

**Interviewer:** *Now, what about the standards? You know, you were talking about a lot of partnerships in India with the BIS and the telecom sector council in India. What is the trend globally in terms of IEEE standards today?*

**SW:** When you think about the impact that IEEE has, with 422,000 members, there are billions of people at this very moment using IEEE standards. In power, Wi-Fi standard - it's in everybody's pocket in this conference, probably in everybody's pocket in this city and this country. So standards have an enormous reach, and I think that's the first thing to recognize. And in IEEE standards activities, we're bringing inventors, we're bringing industries, we're bringing government actors to the table to build ecosystems on which new technologies can be built, new industry, new enterprises, new economic models, and that's an enormously important work, bringing technology into practice. And I think that the effectiveness of IEEE standards is seen in those sectors, in power, in energy etc. If you have an embedded medical device and it's safe to use, it's probably regulated by the IEEE standards.

**Interviewer:** *The pacemaker.*

**SW:** Like the pacemaker. And today, those standards are moving into brand new areas, like intelligent systems, there's all these questions about AI in ethics and safety. I think that's a very exciting area and one for which there's major interest globally from regulators and legislators. I think that increasingly we're seeing attention to IEEE standards coming from Region 10, not just in India, but throughout

Region 10. A broad industrial engagement across China, for example, that we had not seen before. And I think that now folks are recognizing that participating with the global community in collective standards empowerment is essential to building markets, to building interoperability, to connecting research and enterprise around the world. So IEEE, I think, is well-positioned to do this. A year ago we had a major focus on growing our standards, how we could bring more countries into the standard system, how we could expand into new areas. Today I'm more worried about how do we execute all the work that's coming in. We've been so successful in bringing in new standards recognized by IEEE, now the problem is how do we execute it. And I think that's a great challenge to have.

**Interviewer:** *In India we were very excited about the IEEE milestones, especially the short millimeter experiment by J C Bose in Calcutta. Actually, it was never recognized globally until IEEE came into the act and made it a milestone. How does this milestone thing work?*

**SW:** Milestones are supported by local sections that nominate the activities they would like to see recognized. Often we find sponsorship for milestones because it's not an activity the IEEE supports, it's sustained by donations. And then the IEEE history committee vets them for relevance, of course, and they have a relatively high bar to make sure that they're really recognizing key moments in history. But when I travel with IEEE and I get a chance to see these milestones, they're really valued. They're concrete reminders of the impact technology has, everything from the recognitions. We had around the Apollo 11 landing on the moon this year, I was in Panama last year, I got to see the ones along the Panama Canal, and the impact that it had.

The IEEE awards ceremony was in San Diego this year, to see some of the milestone markers up there - they're a physical presence. When you walk the streets of Washington DC you'll come across an IEEE milestone plaque for the first atomic clock. Which enabled GPS and cell phones and other activities. The laboratory where it was invented is no longer there. But the plaque is. And I think it's enormous to remember the people and the places that helped shape technology. And I'm looking forward to seeing - we just had an R10 milestone last week, to recognize the Parkes Radio Telescope in Australia, a very large and very important southern hemisphere observatory that's contributed so much to our understanding of astronomy. I'm looking forward to a lot more R10 milestones.

**Interviewer:** *Stephen, thank you so much.*

# 2019 International Conference on Computing, Power and Communication Technologies (GUCON 2019)

**Rabindra Nath Shaw, Conference Chair for GUCON 2019**

GUCON 2019 was held on 27<sup>th</sup> and 28<sup>th</sup> September 2019 at Radisson Blue Greater Noida, India and Galgotias University Campus 1. The conference was technically sponsored by IEEE Industry Application Society (IAS). There were multiple tracks in the conference covering almost all areas of Electronics, Computer & Electrical Engineering. This year, 996 papers were submitted from 28 countries and 200 papers were eventually selected with 182 authors registered. There was a strong technical review committee consisting of more than 500 technical experts, chaired by Prof. Maria Virvou, University of Piraeus, Greece.



The inaugural session started on 27<sup>th</sup> September 2019 at 9 AM. Shri Deepak Mathur delivered the welcome speech and he discussed many positive points regarding conference and mentioned his regards to the entire international experts associated with GUCON 2019. The conference also have 12 keynote speakers from various part of the globe including Prof. N. R. Pal, President of IEEE Computational Intelligence Society; Prof. Bhim Singh, IEEE Fellow; Prof. Joydeep Mitra, IEEE Fellow, Michigan State University, USA; Prof. S. N. Singh, IEEE Fellow; Prof. Marcin Paprzycki, Polish Academy of Sciences, Poland; Prof Dharmendra Sharma, Chairman of Academic Board, University of Canberra, Australia; Prof. Valentina E. Balas, University of Arad, Romania; and Prof. Saad Mekhilef, Malaysia.







Previously, GUCon 2018 was held on 28<sup>th</sup> and 29<sup>th</sup> September 2018, in which 250 papers selected from 897 submissions. There were 12 keynote speakers including Prof. George A. Tsihrintzis and Prof. Maria Virvou, University of Piraeus, Greece; Prof. Vincenzo Piuri, University of Milan, Italy; Prof. Atiqur, Osaka University, Japan; Prof. Lakhmi C. Jain, University of Canberra, Australia; Mr. Nihar Raj, Vice President ABB Ltd; Prof. D P Kothari, Former Director of IIT Delhi India; and Dr. Saif Abar, Technical Head at IBM India.

The 3<sup>rd</sup> GUCon (<http://gucon.org/GUCon2020>) is scheduled on 25<sup>th</sup> to 27<sup>th</sup> September 2020 at Radisson Blu Greater Noida (NCR New Delhi) India, financially sponsored by IEEE IAS. We hope to meet you at GUCon 2020.

# 2019 International Conference on Recent Developments in Control Automation and Power Engineering (RDCAPE 2019)

Prepared by: H. P. Singh, Conference Chair for RDCAPE 2019



The 3<sup>rd</sup> International Conference on Recent Developments in Control Automation and Power Engineering (RDCAPE 2019), technically co-sponsored by IEEE UP Section, was held from 10<sup>th</sup> to 11<sup>th</sup> October 2019. The conference was organized by the Department of Electrical and Electronics Engineering, Amity University, Noida.

The conference was started with the lighting of lamp in the inaugural session on 10<sup>th</sup> October. The Conference Chair and the Head of the Department, Dr. H.P. Singh introduced the theme of the conference. RDCAPE 2019 co-patron, Dr. M.K. Pandey delivered the welcome address. Dr. Abhay Bansal, joint Head ASET and Dr. K M Soni, Deputy Dean of Engineering & Technology also addressed the gathering. Our Honorable Vice Chancellor Prof. Dr. Balwinder Shukla stressed upon the need of new technologies as area of research. The Guest of Honor speeches were delivered by Mr. Bhagirath Galgat, Executive Vice President – Operations at Havells India, Mr. Awadhesh Jha, Vice President Charge & Drive & Sustainability at Fortum Charge & Drive India, and Prof. Dr. Asheesh Kumar Singh, Chairperson of IEEE UP Section. This was followed by an address by the Chief Guest, Mr. S. S. Mishra, General Manager, Renewable Energy Engineering, NTPC. Further, RDCAPE 2019 souvenir proceedings was released by the dignitaries.

In this conference, 373 papers were submitted. For reviewing the papers, a strong panel of Technical Program Committee was formed. 158 papers were finally accepted for the conference, out of which total registration was 128. Over the period of two days on 10<sup>th</sup> and 11<sup>th</sup> October, there were 18 technical sessions and two plenary sessions in which 5 keynote speakers from foreign and Indian institutions gave expert talks. The technical sessions were chaired by professors from different universities and institutions like NIT Raipur, NIT Jalandhar, MNNIT Allahabad, KNIT Sultanpur, DTU Delhi etc.

In plenary session 1, Prof. Zhihong Man from Swinburne University of Technology, Australia delivered an expert lecture on *Recent Development of Sliding Mode Observer for Nonlinear Systems*. Prof. Herald Weber from University of Rostock, Germany, gave a talk on *A Safe Reliable and Regenerative Electrical Energy Supply to Power the Future*. Prof. Ishak Aris from Universiti Putra Malaysia presented his views on *Applications of Deep Learning in Industry Revolution 4.0*. On day 1, 89 papers were presented in the areas of power system, control system, power electronics renewable energy and other emerging areas of science and technology.

Day 2 started with technical sessions in which the remaining 39 papers were presented. In plenary session 2 the keynote speaker, Prof. Abu Ahmad Siada of Curtin University, Australia delivered a talk on *Intelligent Techniques for Power Transformer Condition*. Dr. Yogendra Kumar Prajapati from MNNIT Allahabad presented his talk on *Surface Plasmon Resonance Sensor: A Real-Time Sensing*. In valedictory function the chief was Sri Vinod Behari, CEO of Power Sector Skill Council (PSSC), Govt. of India and Guest of Honors were Prof. Ahmad Abu Siada and Prof. Ishak Aris. The conference ends by a vote of thanks by Dr. P.M. Tiwari.

## Technical Column – IEEE Region 10 Postgraduate Research Paper Contest 2<sup>nd</sup> Prize Winner

### Fully Metallic Wideband Meta-Surface for Near-field Enhancement in High Power Microwave Applications

**Written by Ali Lalbakhsh, 2<sup>nd</sup> Prize Winner, IEEE Region 10 Postgraduate Research Paper Contest.**

Ali Lalbakhsh is developing a world-class engineering solution to one of the critical impediments in Electromagnetics community. Ali has been working on Electromagnetic (EM) metasurfaces as his PhD topic at Macquarie University, Australia since 2016.

EM metasurfaces are engineered structures to manipulate the EM fields of a typical radiating source for a variety of applications, such as satellite communications, communications on-the-move, space exploration and removal of EM interference. However, the existing metasurfaces have been severely limited due to costly prototyping and limited EM flexibility.



Ali was awarded the 2<sup>nd</sup> Prize in IEEE Region 10 Postgraduate Paper Contest 2019 for removing the limitations mentioned above by developing a new technology for extremely low-cost EM metasurfaces, suitable for both space and down-to-earth applications. Historically, he was awarded the 1<sup>st</sup> and 3<sup>rd</sup> Prize in the same contest in 2018 and 2016, respectively, making him the only researcher in Region 10 who achieved this accolade three times. The impact of Ali's achievement in the development of this new generation of metasurfaces have already been recognized internationally through several prizes and research grants, such as conference cash prize at ICEAA-IEEE APWC 2016, Commonwealth Scientific and Industrial Research Organization (CSIRO) grant on Astronomy and Space exploration, and his nomination for excellence in higher degree research at Macquarie university.

Ali's research aims to transform a lavish high-end EM device, only used in very specialized applications, to a low-end module that anyone, regardless of their socio-economic background, can benefit from, which is in line with the IEEE mission.

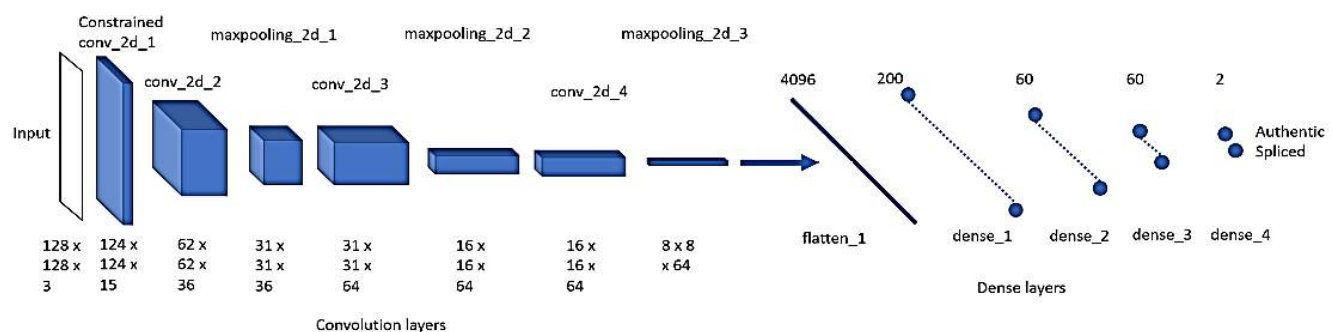


# Technical Column – IEEE Region 10 Postgraduate Research Paper Contest 3<sup>rd</sup> Prize Winner

## Generalizing Image Splicing Detection with Constrained Convolutional Neural Network

Written by Yang Yang Lee, 3<sup>rd</sup> Prize Winner, IEEE Region 10 Postgraduate Research Paper Contest.

Forged images are threatening the digital asset trustworthy, especially spliced images. In order to countermeasure the threat, many researches are working on computational ways of detecting image splicing. Researchers nowadays are focusing on data-driven feature extraction, specifically Convolutional Neural Network (CNN) which is a Deep Learning (DL) algorithm well known for object detection, but is ill-suited for manipulation feature extraction. The factors and design parameters that contribute to the performance of CNN in image splicing detection are still not fully understood. In this research, a constrained convolution algorithm is to be injected into a simple CNN so that its performance in image splicing detection can be studied.



Structure of the CNN with the first layer constrained.

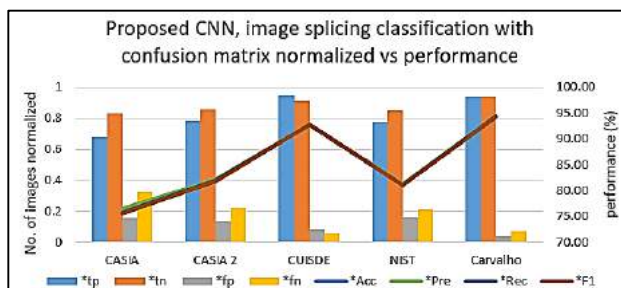


Image splicing classification performance

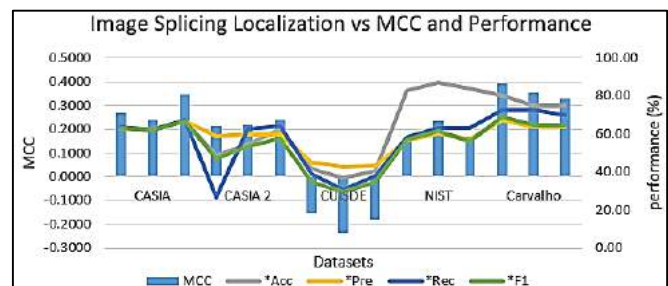


Image splicing localization performance



(a) (b) (c)  
True detection in Carvalho spliced image dataset, (a)predicted spliced area in black, (b) spliced image, (c) block-wise groundtruth



(a) (b) (c)  
True detection in NIST spliced image dataset, (a)predicted spliced area in black, (b) spliced image, (c) block-wise groundtruth

It was found that with a strategic parameter tweaking, it can classify a wide range of spliced image datasets at up to 94.3% accuracy and F1-score. It can also be re-casted to perform splicing localization with the detection accuracy as high as 84.77%. It shows that a simple end-to-end CNN can be re-engineered for image forgery detection.

# ORGANIZATIONAL UNITS ACTIVITIES

## 7. ORGANIZATIONAL UNITS ACTIVITIES

### Karachi Section

#### Student Activities at Karachi Section

Saifullah Baloch, Section Student Representative (SSR) for IEEE Karachi Section

#### 1. IEEE VOLT and S-PAA 2.0 (5<sup>th</sup> October 2019) at DHA Suffa University, Karachi.

An introductory session about VOLT and S-PAA was delivered by SSR Saifullah Baloch followed by a talk on *How can we convert your FYPs into startup* by Engr. Bilal Iqbal Awan, and a motivational session by Mr. M. Usman Javed on *How to become a successful student entrepreneur*. Afterwards a panel discussion was held with panelists including the SSR, Rabia Fatima, Haris bin Ashraf, Moiz Hassan, and the SAC team members on Student Branch governance. After the lunch, a session on *Latest Trends for Professional Engineers* was delivered by Engr. Muhammad Sabeeh. Mr. Arsalan Ajmal enlighten us more about *Entrepreneurship*. The event ended with the last session delivered by Engr. Haris Zikrur Rehman on *Leadership: Starting out Right* followed by certificate and souvenirs distribution lasting with group photo. The events were under IEEE R10 Joint SB Initiative Fund.

#### 2. IEEE Karachi Section Joint SB Meetup (9<sup>th</sup> October 2019) at Jinnah Univ. for Women, Karachi.

The meetup started with an introductory session on IEEE by the SSR. Then there was a networking tea break with both Student Branches (BUITEMS and JUW), along with their Extended Ex-Com, its WIE AG and emerging volunteers who are found to be the next office bearers. The introduction of both Student Branches was also done. There was a session from the Chairs and Vice Chairs on the achievements and progress of their respective Student Branch. Another session was held to discuss the different kinds of activities the inactive Student Branch had done in the past, during which several points were raised on why they failed in member retention. WIE session was delivered by the WIE SAC advisor and chair on SB governance and WIE Affinity Group. A meeting of both SBs with major management issues was held and the event ended with lunch and group photo.

#### 3. IEEE Karachi Section Joint SB Get together (19<sup>th</sup> October 2019) at Dream World Resort, Karachi.

An introductory session to IEEE was given by the SSR of IEEE Karachi Section, Saifullah Baloch, followed by networking tea for both Student Branches (MUET and BUKC) and a networking walk around the venue for Ex-Com members to mingle and network with each other. Thereafter the SSR discussed the duties of Ex-Com members with participants and enlighten them regarding different solutions for the problems faced by Ex-Com members. Then there was discussion between both SB on event design, volunteer engagement, membership development, management, Vtools reporting, elections and nominations procedure, and technical chapter formation. The event ended with lunch, souvenirs distribution to both student branches and a group photo.





## Malaysia Section

### Recognizing Students' Technical Competence

#### **Alpha Agape Gopalai, Executive Committee for IEEE Malaysia Section**

The IEEE Malaysia Section annually runs a nationwide Final Year Project Competition. This year, in our 6<sup>th</sup> installation - launched on the 15<sup>th</sup> of July 2019, we were able to attract external parties to co-organize our flagship event for students in general. This competition was co-organized by University Putra Malaysia and was supported by the Department of Higher Education, Ministry of Education.

The competition received a total of 380 submissions, the highest recorded submission for the competition to date. We were able to offer 19 technical tracks, thanks to the technical co-sponsorship of the respective IEEE chapters, councils and affinity groups within Malaysia section, namely the Antennas & Propagation/Microwave Theory & Technique/Electromagnetic Compatibility Joint Chapter (AP/MTT/ EMC), Circuits and Systems Society (CAS), Computer Society (CS), Consumer Electronics Society (CES), Dielectric and Electrical Insulation (DEIS), Electron Devices Society (EDS), Electronics Packaging Society (EPS), Geoscience and Remote Sensing (GRS), Systems, Man, and Cybernetics Society (SMC), Power and Energy (PES), Computational Intelligence (CIS), Engineering in Medicine and Biology (EMBS), RFID Council Malaysia Chapter, Sensors and Nanotechnology Joint Councils Chapter (SEN-NANO), Signal Processing (SP), Technology & Engineering Management (TEMS), Oceanic Engineering (OES), Young Professionals (YP), and Communications / Vehicular Technology (COMSOC/VT).

Malaysia Section views this event as our greatest awareness campaign among the student population. As part of the entry requirement, we require that participating students take an IEEE Awareness Survey. We use the results of this survey to gauge our penetration and plan for effective student activity programs in the coming year. There



were in total 50 winners from various tracks. The award ceremony for the 6<sup>th</sup> IEEE Malaysia Section Best Final Year Project Competition was held on the 12<sup>th</sup> October 2019, in MaGiC, Cyberjaya. The ceremony was opened to all IEEE Members and Student Members in Malaysia Section. Additionally, award winners were also encouraged to bring an accompanying delegate (parent, supervisor or friend).

### MY Women in Engineering Congress 2019

#### **Rosmiwati Mohd Mokhtar, Chair for IEEE Malaysia Section WIE AG**

On 18<sup>th</sup> October 2019, the MY Women in Engineering Congress was successfully organized by the IEEE Malaysia Section Women in Engineering Affinity Group. The event was held at the Universiti Tenaga Nasional (UNITEN), Bangi, Selangor. Four keynote speakers have been invited to deliver their speeches.

- Professor Ir. Dr. Zuhaina Zakaria, Director, Center of Competency & Intellectual Excellence UiTM
- Professor Ir. Dr. Leong Wai Yie, Chair, IET Malaysia
- Dr. Esther Loo, Head of Digital Advocate & Knowledge Management UEM
- Ir. Fauziah Ali, Custodian Engineer, PETRONAS

With the theme *How to succeed in a male-dominated industry: Stories from real women who have done it*, the congress received more than 50 participants at the event. Partially funded by the IEEE Malaysia Section, the congress was run successfully seeing very good response and feedback from the participants.



## Kansai Section

### IEEE Kansai WIE Symposium 2019

**Etsuko Ueda, Chair for IEEE Kansai Section WIE AG**

IEEE Kansai WIE Symposium 2019 was held at the UMEDA campus of Osaka Institute of Technology on 28<sup>th</sup> September 2019. Kansai Section WIE AG organized the symposium with the cooperation of Kansai Section YP AG and six Student Branches. The purpose of the symposium, already the sixth in the series, is networking for women engineers and researchers in the Kansai area. The total number of participants was 41, including students (four high school students, one undergraduate student, and six graduate students).





The symposium consisted of two role model talks by women engineers of different ages, poster talks by five women engineers who work at companies, and a group-talk session. Through active interaction, participants enjoyed the symposium to get better images on the career of women researchers as well as making a WIE network. We also will have the 7<sup>th</sup> Kansai WIE Symposium in autumn 2020.

## Sendai Section

### Panel Discussion in iCAST 2019

**Basabi Chakraborty, Past Chair for IEEE Sendai Section WIE AG**

A panel discussion with the theme *Leaking Pipeline: Sustaining Tech-Aware Women Careers* was held on 23<sup>rd</sup> October 2019 in Morioka, Iwate, Japan as part of the special WIE session on *Technologies for Women - the Good, the Bad and the Ugly* at the 10<sup>th</sup> International Conference on Awareness Science and Technology (iCAST). Prof. Ramalatha Marimuthu, Prof. Nabanita Das, Prof. Basabi Chakraborty and Mrs. Emi Yano were the panelists while Prof. Takako Hashimoto was the moderator for the discussion. The conference attendees, young students as well as senior professors from different countries joined the panel. After an introduction of the problem by the individual panelists from their perspectives, the audience was invited to take part in the discussion and share their experiences and opinions. It was interesting to know the present day status of tech women in different countries as well as how it was thirty to forty years ago.





## Japan SYWL Workshop in Sendai

Ryuichi Takemura, Volunteer for IEEE Sendai Section YP AG



Japanese SYWL (Students, Young Professionals, Women in Engineering, and Life Members) workshop was held on 25<sup>th</sup> October 2019 in Tohoku University in Sendai city. There were 37 people who attended the workshop and they were engineers and researchers from various generations, regions, and fields. The theme of the event was *Dreams of STEM (Science, Technology, Engineering, and Mathematics)*.

In the event, the participants were separated to 4 to 5 member teams and discussed on how future technologies will be. For example, one team found that small excitements which we feel in our daily life are very important to keep our motivation to work. If we can invent the *excitement visualization device* to quantify how much excitement people feel, it will be easier to understand when we will be likely to get this kind of feeling. This understanding will enable us to build the system that enhances our daily motivation.

## Sendai LMAG Establishment Memorial Symposium

Michitaka Kameyama, Chair for IEEE Sendai Section

The Sendai Section Life Members Affinity Group (Sendai LMAG) was established on 20<sup>th</sup> March 2019. This is the fourth LMAG in Japan after the establishment of Tokyo Section, Kansai Section, and Nagoya Section LMAGs. The Sendai LMAG Establishment Symposium, including establishment ceremony and general



meeting, was held at Aoba Memorial Hall, Tohoku University on 25<sup>th</sup> October 2019 as follows:

- Sendai LMAG Establishment Ceremony, General Meeting (attendance:39)
- Special lecture by three distinguished Life Members (attendance:54)
  - Dr. Shun-ichi Iwasaki (Professor Emeritus, Tohoku University)
  - Dr. Tomonori Aoyama (Professor Emeritus, Tokyo University)
  - Dr. Shojiro Kawakami (Professor Emeritus, Tohoku University)

After the symposium, the LMAG and SYWL exchange meeting was held (attendance:41).

## Japan Council

### WIE 2019 - Future Technology Developed by Women Engineers

Mamiko Inamori, Secretary for Japan Council WIE AG



The WIE 2019 conference with a theme *WIE, Technology/Research, and Me* was held at Tsuda University, Tokyo, Japan, on 9<sup>th</sup> November 2019. This event was organized by IEEE Japan Council Women in Engineering Affinity Group and co-organized with the Center for Women in Research, Tsuda University. The total number of participants was 62 including IEEE members. The technical track had three speakers from Japan Council WIE committee members, Prof. Akinori Nishihara, Dr. Ray Atarashi, and Prof. Mamiko Inamori. They showed strong passion for their work and activities in WIE.

At the table talk session, participants of various ages, from students to working professionals, exchanged their opinions on various issues regarding their professional and other experiences in different areas. Through this event, we could build networks of women engineers, researchers and students, and we discussed future technologies that women would cultivate to the world. Attendees commented in the questionnaire that they were fully satisfied with the event.

## Islamabad Section

### Islamabad Section Jt. AP03/MTT17/EMC27 Chapter Updates

Noshewan Shoaib, Chair for IEEE Islamabad Section AP/MTT/EMC Chapter

The IEEE Islamabad Section AP/MTT/EMC joint chapter has organized an IEEE EMC/I and RF Cable Characterization Workshop on 27<sup>th</sup> – 29<sup>th</sup> August 2019 at the Research Institute for Microwave and Millimeter-Wave Studies (RIMMS), National University of Sciences and Technology (NUST), Islamabad, Pakistan. This 3-day workshop was focused on electromagnetic compatibility and interference (EMC/I) practical concepts and RF cable training which included the introduction to EMC/I, commercial standards, RF cable repairing and characterization. The workshop also included the hands on sessions. The invited speakers were Dr. Noshewan Shoaib, Engr. Maira Islam from RIMMS-NUST and Ahmed Shafqat from R&S, Pakistan. Dr. Noshewan, who is the Chair for IEEE AP/MTT/EMC joint chapter and faculty member at NUST-RIMMS, was earlier awarded the IEEE EMC Chapter Founders Award 2019 by IEEE Electromagnetic Compatibility (EMC) Society at the IEEE International Symposium on Electromagnetic Compatibility, Signal & Power Integrity held in New Orleans, US on 22<sup>nd</sup> – 26<sup>th</sup> July 2019.





## Joint Venture Meeting at UET Taxila

**Muhammad Saif Raza, Chair for IEEE UET Taxila Student Branch**



Four Student Branches in Islamabad Section participated in the Joint Venture Meeting held on 22<sup>nd</sup> October 2019 at Taxila Univ of Engineering and Tech. This event was led by Mr. Muzamil Mahmood, SSR of Islamabad Section. The event consisted of different types of modules, in which student branches engaged and understood the smooth flow of operations of IEEE and IEEE Student Branches. Dr. Zubair, Chair-SAC and Dr. Gulistan Raja, Chair-Awards and Recognition, from Islamabad Section shared their experiences.

The meeting of SB officers from active as well as dormant SBs from Islamabad Section was also conducted. The experiences and activities of the active SBs were shared with the dormant SBs, and strategies to run a Student Branch and the benefits of IEEE membership were discussed with students. Sessions on Membership Development and vTools were also arranged.

## Workshops by IEEE PIEAS Computer Society Student Chapter

**Muhammad Ahsan Mukhtar, Chair for IEEE PIEAS CS Student Chapter**



For providing a better environment for students, IEEE Computer Society PIEAS Chapter organized various workshops related to different programming languages like C and OOP in C++. It organized Code Frenzy and Web Design Competition in PiON'19 to test the capabilities of the mind and unleash the intellectual potential of the participants. The workshop on OOP in C++ was held at the Computer

Center, PIEAS from 8<sup>th</sup> to 11<sup>th</sup> April 2019. The four-day workshop covered the basics of C++ and solved several tasks for better understanding. This society, along with the IEEE Young Professional, also organized a workshop on Artificial Intelligence and Machine Learning on 8<sup>th</sup> March 2019, instructed by Dr. Mudaasir Abbas, where more than 100 students participated all cross Islamabad and Rawalpindi.



## Seminars Organized by IEEE UET Taxila CES Student Chapter

**Hammad Tariq, Chair for IEEE UET Taxila CES Student Chapter**

The IEEE UET Taxila CES Student Chapter arranged two seminars:



(1) Opportunities of MS Scholarship from South Korea on 13<sup>th</sup> September 2019: Muhammad Irshad (PhD Candidate, School of Chemical Engineering SKKU, South Korea) told the students about opportunities of different scholarships in South Korea, especially opportunities in SKKU for research and MS admissions.

(2) Seminar on oil and gas industry on 25<sup>th</sup> September 2019: Engr. Shahroz Ahmad, Design and Application Engineer, discussed the scope for students of electrical and electronics in oil and gas industry and explained clearly the critical activities at upstream, middle stream and downstream of this industry.

## PiON'19 Modules

**Amina Tabassum, Chair for IEEE PIEAS WIE Student Chapter**

PiON'19 was a 3-day national level event organized by IEEE PIEAS SB in collaboration with other societies of PIEAS. It provided students the opportunity to open the realms of their technical skills in the Leibniz of Pakistan, awaken their inner geek in Code Frenzy, model their imaginations in 3D modelling, stir their artistic genius in live painting and calligraphy, and short story writing competitions. WIE PIEAS AG headed these modules: (1) Leibniz of Pakistan - This brought together math enthusiasts and let them showcase their talent through a tough questionnaire that expected participants to have a sharp mental math skill and quick thinking



skills. (2) Blue Book – This brought together genius minds in general knowledge about both the non-technical world and the technical world. This module encouraged students who were confident in their facts and figures related to the field of electrical and electronics as well as other general knowledge.

## Hyderabad Section

**N.Venkatesh, Chair for IEEE Hyderabad Section**

### 2019 IEEE International Conference on Intelligent Systems and Green Tech (ICISGT-2019)

IEEE ICISGT was the flagship conference of IEEE Vizag Bay Sub-Section under IEEE Hyderabad Section held on 29<sup>th</sup> – 30<sup>th</sup> June 2019 at YVSM auditorium, Vizag. “This conference was one of its kind and is planned to be organized bi-annually in Vizag Bay Sub-Section area” said Dr. Abraham Varughese, General Chair, ICISGT. The objective was to present and discuss recent innovations and concerns in multi-disciplinary areas like Green Computing, Intelligent Systems and Controls. The conference

received 111 paper submissions from nine different countries including India. Only 25 high quality research papers were accepted and presented in the conference.

Dr. O.R. Nandagopan, Outstanding Scientist and Director, NSTL (DRDO) was the chief guest for the inaugural session. During his address, he stressed the need of such conferences in Visakhapatnam as the city will be the hub for high-end technical products. The conference proceeding volume was released by the chief guest and N Venkatesh, Chair of IEEE Hyderabad section. There were six technical sessions, one panel discussion and a special session on *Conventional and Bio-inspired Techniques for Industrial Applications* organized at this conference. The valedictory function was chaired by Sri K.V. Sriram, Chair, IEEE Vizag Bay Sub-Section and participation certificates were awarded to all the participants. Dr. S. Lakshminarayana, Organizing and Publication Chair proposed the vote of thanks.



# AWARDS AND FUNDING



## 8. AWARDS AND FUNDING

### Region 10 Newly Elevated Fellow Class of 2020

<b>Australian Capital Terr Section</b>	
<b>Hussein Abbass</b>	for contributions to evolutionary learning and optimization
<b>Beijing Section</b>	
<b>Baoquan Chen</b>	for contributions to spatial data visualization
<b>Bing Zhang</b>	for contributions to hyperspectral image acquisition and processing
<b>Dongbin Zhao</b>	for contributions to adaptive dynamic programming and reinforcement learning
<b>Feifei Gao</b>	for contributions to channel estimation and signal processing for wireless communications
<b>Huazhong Yang</b>	for low-power circuit techniques for sensor applications and design automation
<b>Hui Xiong</b>	for contributions to data mining and mobile computing
<b>Jinghan He</b>	for contributions to the protection of substations and traction power
<b>Mugen Peng</b>	for contributions to radio resource management of wireless networks
<b>Shanzhi Chen</b>	for leadership in standardization of wireless mobile systems
<b>Tianzi Jiang</b>	for contributions to neuroimaging techniques
<b>Wei Chen</b>	for contributions to algorithmic development for influence maximization in social networks
<b>Yong Song</b>	for contributions to neural adaptive and fault-tolerant control techniques
<b>Yunhong Wang</b>	for contributions to iris and face recognition
<b>Zhongsheng Hou</b>	for contributions to data-driven learning and control with applications in transportation systems
<b>Chengdu Section</b>	
<b>Shiwen Yang</b>	for development of time-modulated antenna arrays
<b>Daejeon Section</b>	
<b>Chul Soon Park</b>	for development of low power millimeter-wave circuits and packages
<b>Jong Chul Ye</b>	for contributions to signal processing and machine learning for bio-medical imaging
<b>Wan Choi</b>	for contributions to the analysis and design of multi-cell communication systems
<b>Guangzhou Section</b>	
<b>Hong Rao</b>	for leadership and contributions to the design and application of HVDC in AC/DC grids
<b>Harbin Section</b>	
<b>Jun Zhao</b>	for contributions to switched systems and dissipativity theory
<b>Ligang Wu</b>	for contributions to sliding mode control and robust filtering
<b>Hong Kong Section</b>	
<b>Guoliang Xing</b>	for contributions to sensor networks and low-power wireless networks
<b>Hwa Yaw Tam</b>	for contributions to fiber sensing networks for railway predictive maintenance
<b>Kawai Cheng</b>	for contribution to electric vehicle technology and switched-capacitor power conversion
<b>Lei Chen</b>	for contributions to time series management and spatial crowdsourcing
<b>Song Guo</b>	for contributions to high performance and resilient distributed computing
<b>Yingjun Zhang</b>	for contributions to resource allocation and optimization in wireless communications
<b>Kansai Section</b>	
<b>Akira Inoue</b>	for development of inverse class-F power amplifiers for mobile phones
<b>Osamu Tabata</b>	for contributions to the development and commercialization of micro electro mechanical systems
<b>Kolkata Section</b>	
<b>Ujjwal Maulik</b>	for development of algorithms in evolutionary clustering and bioinformatics
<b>Macau Section</b>	
<b>Weijia Jia</b>	for contributions to optimal network routing and deployment
<b>Nanjing Section</b>	
<b>Bin Jiang</b>	for contributions to intelligent fault diagnosis and fault-tolerant control
<b>Shihua Li</b>	for contributions to the theory of mismatched disturbance rejection in industrial systems

<b>Queensland Section</b>	
<b>Gerard Ledwich</b>	for development of control of power systems and power electronics
<b>Mahinda Vilathgamuwa</b>	for contributions to power quality and grid storage
<b>Roorkee Subsection</b>	
<b>Kartikeyan Machavaram</b>	for contributions to high-power millimeter wave and terahertz sources
<b>Seoul Section</b>	
<b>Byung-gook Park</b>	for contributions to charge trap flash memory and multiple patterning technology
<b>Chuntaek Rim</b>	for contributions to wireless power transfer for electric vehicles and mobile devices
<b>Daesik Hong</b>	for contributions to wireless and cellular communication technologies
<b>Jae-sung Rieh</b>	for contributions to silicon-germanium integrated circuits for wireless communications
<b>Kukjin Chun</b>	for leadership in microelectromechanical systems technology development
<b>Sangyeun Cho</b>	for leadership to solid-state drive architectures and systems
<b>Shanghai Section</b>	
<b>Xiaofeng Li</b>	for contributions to the application of synthetic aperture radar for ocean remote sensing
<b>Shikoku Section</b>	
<b>Masahiko Jinno</b>	for contributions to elastic optical networks and C- and L-band transmission systems
<b>Singapore Section</b>	
<b>Dipti Srinivasan</b>	for contributions to computational intelligence for Smart Grid
<b>Mo Li</b>	for development of wireless and networked sensing systems
<b>Xiaowu Zhang</b>	for contributions to three-dimensional integrated circuits
<b>Xudong Chen</b>	for contributions to optimization methods for electromagnetic inverse scattering
<b>Yonggang Wen</b>	for contributions to cloud systems for multimedia signal processing and communications
<b>Yonghong Zeng</b>	for contributions to spectrum sensing and medium access control in cognitive radio
<b>Tainan Section</b>	
<b>Jiann-fuh Chen</b>	for contributions to power electronics in sustainable energy and high power systems
<b>Ting-chang Chang</b>	for contributions to non-volatile memory and thin-film transistor technologies
<b>Taipei Section</b>	
<b>Chion Chui</b>	for contributions to high-mobility germanium metal-oxide-semiconductor devices
<b>Chong-yung Chi</b>	for contributions to convex analysis and optimization for blind source separation
<b>Gong-ru Lin</b>	for contributions to ultrafast fiber lasers and highspeed laser diodes for optical communications
<b>Po-tsun Liu</b>	for contributions to thin film transistor technologies
<b>Yo-ping Huang</b>	for contribution to fuzzy and grey modeling in intelligent healthcare systems design
<b>Tokyo Section</b>	
<b>Akihiko Kandori</b>	for contributions to superconductive magnetocardiography and diagnostic technology
<b>Atsuo Takanishi</b>	for contribution to the development of humanoid robots
<b>Mutsuhiro Mori</b>	for contributions to high voltage insulated gate bipolar trans. for traction and high voltage systems
<b>Yuji Suzuki</b>	for development of electret materials
<b>Zhenjiang Hu</b>	for contributions to robust software development
<b>Victorian Section</b>	
<b>Saeid Nahavandi</b>	for contributions to haptically-enabled robotic systems
<b>Xiaodong Li</b>	for contributions to large-scale and particle swarm optimization
<b>Yang Xiang</b>	for contributions to network and system security
<b>Western Australia Section</b>	
<b>Ba-ngu Vo</b>	for contributions to the theory of multiple object tracking and estimation
<b>Wuhan Section</b>	
<b>Zhigang Zeng</b>	for contributions to analysis and synthesis of neurodynamic systems
<b>Xian Section</b>	
<b>Mengdao Xing</b>	for contributions to radar imaging and motion compensation algorithms

# IEEE Darrel Chong Student Activity Awards

## 2018 Winners

### \*Gold Category:\*

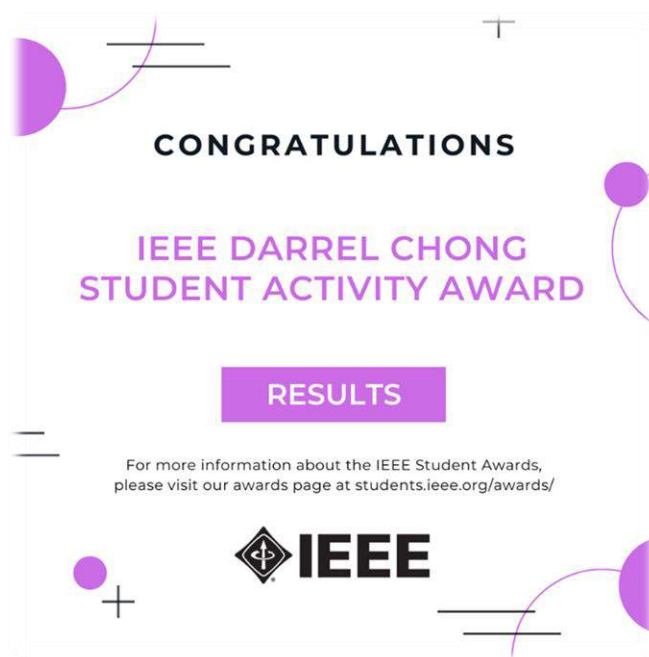
- Code Experts 4.0, University of Moratuwa, Sri Lanka Section (R10)

### \*Silver Category:\*

- Special Interest Groups (SIGs), BMSCE IEEE Student Branch, Bangalore Section (R10)

### \*Bronze Category:\*

- Outreach Program for Pre-University Students, IEEE Bangladesh University of Engineering and Technology Student Branch, Bangladesh Section (R10)
- Makerthon, Universiti Sains Malaysia, Malaysia Section (R10)
- CloudHack'17, IEEE Student Branch of University of Colombo School of Computing, Sri Lanka Section(R10)



## 2019 Winners

### \*Gold Category:\*

- Elite Academic Salon - China, China Univ of Electronic And Tech SB, Chengdu Section (R10)
- LUXATHON College of Engineering - Karunagappally, Kerala Section (R10)
- IEEE Science and Technology Exhibition (SATE), Curtin University - Sarawak, Malaysia Section (R10)
- STAC'18, G H Patel College of Engineering & Technology Gujarat Section (R10)
- Women In Robotics(WiR), IEEE Student Branch Muffakham Jah College of Engineering and Technology, Hyderabad Section (R10)
- Kagada 18, IEEE UVCE, Bangalore Section (R10)
- IEEE MSB ACTIVITY 2018-19, Maulana Azad National Institute of Technology, Bhopal formerly known as Maulana Azad College of Technology, Bombay Section (R10)

### \*Silver Category:\*

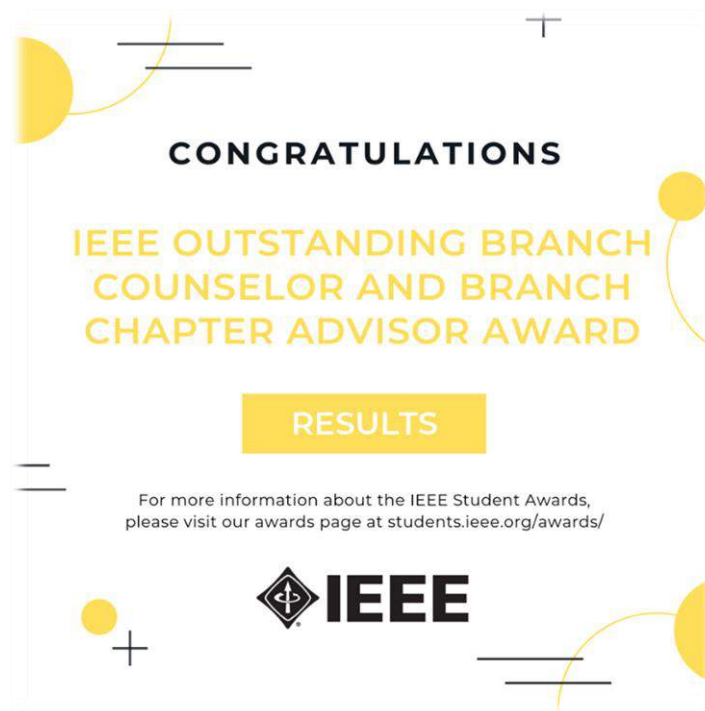
- Special Interest Groups (SIGs), B. M. Sreenivaslah College of Engineering, Bangalore Section (R10)
- Technorax, IEEE ADGITM, Delhi Section (R10)
- IEEE Fundraising for Free Workshop, Universiti Sains Malaysia Malaysia Section (R10)

### \*Bronze Category:\*

- Illuminate 2018, IEEE GRIET SB, Hyderabad Section (R10)
- ROBOTHON 5.0, IEEE SB CEC, Kerala Section (R10)
- Envision, Natl Institute of Technology Karnataka, Bangalore Section (R10)



## IEEE Outstanding Branch Counselor and Chapter Advisor Award



### 2018 Winners

- Dr. KUMARAVEL S, National Institute of Technology Calicut - STB21881, Kerala Section (R10)
- Mohd Tafir Bin Mustaffa, Universiti Sains Malaysia STB03001, Malaysia Section (R10)
- Hendra Gunawan Harno, Curtin University Sarawak STB66611, Malaysia Section (R10)

### 2019 Winners

- ARUN M, Panimalar Institute of Technology - Chennai (STB15181), Madras Section (R10)
- Dr. Rintu Khanna, PEC University of Technology - Chandigarh STB18441, Delhi Section (R10)
- Mohammed Arifuddin Sohel, Muffakham Jah College of Engineering and Technology (STB61931), Hyderabad Section (R10)
- Sabeena K, College of Engineering, Karunagappally (STB03951), Kerala Section (R10)
- Harshul yagnik, A.D.Patel Institute of Technology (STB64801), Gujarat Section (R10)
- Dr T Sree Sharmila, Sri Sivasubramaniya Nadar College of Engineering (STB60551), Madras Section (R10)

## Larry K Wilson Regional Student Volunteer Award 2019



Congratulations to all the winners of Larry K. Wilson Regional Student Volunteer Award (2019):

R1 - William Sussman (Yale University, Connecticut Section)

R2 - Thassyo da Silva Pinto (Michigan State University, Southeast Michigan Section)

R6 - Mirka Mandich (Seattle University, Seattle Section)

R7 - Kevin (Gen Sheng) Zhang (University of Toronto, Toronto Section)

R8 - Kithinji Muriungi (Moi University, Kenya Section)

R9 - Izabel Cristina Silva Oliveira (IFPB - Paraíba Federal Institute of Education, Science and Technology, Bahia Section)

***R10 - Sahil Sameer (Model Engineering College, Kerala Section)***

## IEEE Global Student Branch Website Contest 2019



### 1st Place (Winner):

An-Najah National University (STB04211), IEEE Palestine Sub-Section (R8)

<http://www.ieee-annu.com/>

### 2nd Place (Runner):

University of Toronto (STB02021), Toronto Section (R7)

<https://ieee.utoronto.ca/>

### Honourable Mention(s):

University of Ottawa (STB01471), Ottawa Section (R7)

<https://ieeEUottawa.ca/>

***Curtin University - Sarawak (STB66611), Malaysia Section (R10)***

<https://ewh.ieee.org/sb/malaysia/curtinsarawak/>

Professional Interdisciplinary Unit in Engineering and Advanced Technologies of the National Polytechnic Institute (IEEE UPIITA – IPN)(STB62811), Mexico Section (R9)

<https://ieeEupiita.mx/>



## IEEE Educational Activities Board (EAB) Award Recipients 2019



### IEEE Educational Activities Board 2019 Award Recipients

IEEE EAB Awards & Recognition Committee is pleased to announce the recipients of the 2019 EAB Awards program:

<b>Arda Kaygan</b>	IEEE Life Members Graduate Study Fellowship in Electrical Engineering
<b>Andrew Boggio-Dandry</b>	Charles LeGeyt Fortescue Graduate Scholarship
<b>Enrique Alvarez</b>	Meritorious Achievement Award in Accreditation Activities
<b>Yoot Khuan Lee</b>	Meritorious Achievement Award in Pre-University Education
<b>Nizar Rokbani</b>	Meritorious Achievement Award in Pre-University Education
<b>Doug Walled</b>	Meritorious Achievement Award in Continuing Education
<b>IEEE Aerospace and Electronic Systems Society</b>	Society / Council Professional Development Award
<b>Linda Whipker</b>	Major Education Innovation Award
<b>Victoria Sernao</b>	Meritorious Achievement Award in Outreach and Informal Education
<b>IEEE Buenaventura Section</b>	Section Professional Development Award
<b>John Orr</b>	IEEE-HKN Distinguished Service Award
<b>Timothy Hansen</b>	IEEE-HKN C. Holmes MacDonald Outstanding Teaching Award
<b>Guilhem de Valicourt</b>	IEEE-HKN Outstanding Young Professional Award

# CONFERENCE CALL FOR PAPERS



# CONFERENCE CALL FOR PAPERS




## IEEE TENSYPMP 2020

*Technology for Impactful Sustainable Development*

Organized By **IEEE Bangladesh Section** **IEEE region 10**

Dhaka, Bangladesh 5<sup>th</sup> to 7<sup>th</sup> June 2020 [www.tensymp2020.com](http://www.tensymp2020.com) [Info@tensymp2020.com](mailto:Info@tensymp2020.com)

### CALL FOR PAPER

#### General Chair

Dr. Celia Shahnaz, BUET

#### Technical Program Chair

Dr. Shaikh A. Fattah, BUET

#### Finance Chair

Yasir Arafat, BUET

#### Publication Chair

Dr. Mohammad Moshikul Hoque, CUET

#### Conference Secretary

Raihan Ur Rashid, DU

Abhijit Biswas, BRAC University

#### Web Design & Graphics

Zafir Shafiee Chowdhury, Singularity Ltd.

Md. Tauhidur Rahman, AIUB

Abir Ahsan Akib, BRAC University

IEEE Region 10 Symposium (TENSYPMP) 2020 will be held on Hotel Pan Pacific Sonargaon Dhaka, Dhaka, Bangladesh from 05 June to 07 June 2020. This is a prestigious flagship technical conference of IEEE Region 10.

The theme of TENSYPMP 2020 is "Technology for Impactful Sustainable Development" and its aim is to bring together individuals conducting project and research to achieve the United Nation's 17 global Sustainable Development Goals (SDGs) to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

Prospective authors are invited to submit full paper using online paper submission system. There will be best paper awards and a large number of travel grants. All accepted and presented papers will be submitted to IEEE Xplore® digital library.

The scope of the conference includes but not limited to the following areas:

- ◆ Antenna, Microwave & RF Engineering
- ◆ AI, Computer Networks, Security & IOT
- ◆ Biomedical Eng. & Bioinformatics
- ◆ Cloud, Big Data & ICT
- ◆ Computer Architecture & Systems
- ◆ Computer Vision, Graphics & HCI
- ◆ Clean Water and Sanitation
- ◆ Climate Change and Environment
- ◆ Devices, Materials & Processing
- ◆ Electrical Machines & Drives
- ◆ Ethics and Societal Impacts of Technology
- ◆ Emerging Technologies
- ◆ Humanitarian Technology
- ◆ Nano & Semiconductor Technology
- ◆ Photonic Technologies & Applications
- ◆ Power Electronics
- ◆ Power System & Renewable Energy
- ◆ Robotics, Control & Automation
- ◆ Software & Database Systems
- ◆ Signal, Image & Video Processing
- ◆ Sustainable Consumption and Production
- ◆ Technology for Quality Education
- ◆ VLSI, Circuits & Systems
- ◆ Wireless & Optical Communication
- ◆ Sensor Technologies and Applications
- ◆ Information Technologies
- ◆ Communications and Networks
- ◆ Computational Intelligence
- ◆ Industrial Applications
- ◆ Women Empowerment

### Registration Fees

Category	Local (BDT)	Foreign (US\$)
Non IEEE Member	15,000	375
IEEE Member	12,000	300
Non IEEE Student Member	10,000	250
IEEE Student Member	8,000	200
IEEE Life Member	8,000	200

One registration covers one paper. For each additional paper, 50 US\$ (For local authors 2,000 BDT) will be added to the registration fees listed.

Registration Fees include half day city tour, two lunches, snacks, one banquet dinner, social events, entry to all technical sessions, project presentation and quizzes.

### Important Dates

- ◆ Special Session (SS) Proposals: November 15, 2019
- ◆ Submission of Regular/SS Papers\*: January 15, 2020
- ◆ Notification of Acceptance: March 15, 2020
- ◆ Camera Ready Submission: March 30, 2020
- ◆ Author Registration: March 30, 2020

### Events

- ◆ YP, WIE and Students Events
- ◆ Tutorials
- ◆ Industry Panels
- ◆ IEEE HAC Event

### Partial Travel Grants

A large number of travel grants (50 to 300 USD) are available. Apply during paper submission and get the result during notification of acceptance.

**Contact: Prof. Dr. Celia Shahnaz, General Chair, TENSYPMP 2020, [dr.celia.shahnaz@ieee.org](mailto:dr.celia.shahnaz@ieee.org)**







Osaka, Japan's invitation to:

**TENCON 2020**  
16-19 November, 2020

Takao Onoye (Osaka University)  
2019-2020 Japan Council Chair

**DIGITAL ECOSYSTEM FOR HUMANITY**

# IEEE R10 Humanitarian Technology Conference 2020

1-3 December 2020 | *Kuching, Malaysia*

Organized by



For more info, please visit <http://sarawak.ieeemy.org> or contact

General Chair - Associate Professor Dr. Lau Bee Theng  
([blau@swinburne.edu.my](mailto:blau@swinburne.edu.my)),

General Co-Chair - Associate Professor Dr. Mohammad Faizal Ahmad Fauzi  
([faizal1@mmu.edu.my](mailto:faizal1@mmu.edu.my))

**Advertise in our R10 Newsletter!**

**Conferences Call for Papers**

**Full page: USD200**

**Half page: USD100**

**Full page coverage and one eNotice broadcast: USD500**

**Advertisement from external companies**

**Full page: USD500**

**Half page: USD300**

**Online Banner Advertisements**

**1-month Banner: USD100**

**1-year Banner: USD1000**

**Contact [r10-ecm@ieee.org](mailto:r10-ecm@ieee.org) / [ewell.tan@ieee.org](mailto:ewell.tan@ieee.org) if you are  
interested.**



January 2020 Issue  
IEEE R10 Newsletter

# IEEE R10 TODAY