

2021 IEEE Singapore Section Report

PART A - SECTION SUMMARY

A.1 EXECUTIVE SUMMARY

POSITION	NAME
Chairman	Muhammad Faeyz Karim
Vice Chair (Awards & Recognition Chair)	Sahoo Sanjib Kumar
Secretary (eBroadcast Chair)	Shao Xuguang, Michelle
Treasurer (Conference Chair)	Arokiaswami Alphones
Immediate Past Chairman (Awards & Recognition Chair)	Ong Ling Chuen, Michael
Committee Member - Membership Chair	Ravinder Pal Singh
Committee Member - Student Activities Chair	Nicholas Wong
Committee Member - Professional Activities Chairs	Amit K Gupta / Aishwarya Bandla
Committee Member - Industrial Activities	Tan Yen Kheng
Committee Member - Educational Activities Chairs	Goh Wang Ling / Ma Maode
Committee Member - Coordinator for Life Members AG	Gooi Hoay Beng

2021 has been another challenging year for the IEEE Singapore Section together with all the Chapters because of the Covid-19 situation. Despite the challenge and a lot of events had to be cancelled or held virtually, the Section managed to organize 199 events, out of which 131 are technical, 17 non-technical and 51 administrative and 5 professional activities, as of 28 October 2021. I would like to thank all the active volunteers in Singapore for their time and effort that made the various events possible and even successful for many.

Growing the membership base remains a challenge and our goal would be to strive for a sustainable increase in members. We hope these new members will be engaged in various IEEE activities and would appreciate the value of professional networking.

The Singapore Section was recognized for gold award for meeting both its recruitment and retention goals for the 2021 membership year. Well done to the Membership Development Committee!

Thanks to all the active volunteers in Singapore for their time and effort that made the various events possible and even successful for many.

ELEVATED IEEE FELLOWS – 2021

1. **Chuan Seng Tan** - for contributions to wafer bonding technology for 3D packaging and integration
2. **David Lo** - for contributions to synergizing software engineering and data mining
3. **Erik Cambria** - for contributions to affective computing and sentiment analysis
4. **Lay-Kee Ang** - for contributions to electron emission and space charge effects in nanodiode and quantum materials
5. **Tseng King Jet** - for contributions to permanent magnet machines and distributed energy resources

1. MEMBERSHIP RENEWAL FOR NOMINATED COMMITTEE MEMBERS

All nominated ExCo members need to renew their membership for the coming year, before submitting their nomination forms. This will ensure that the Section office can update the IEEE vTools with the new committee at the beginning of the year and signatories of Chapter bank accounts can be updated promptly.

Despite this regulation implemented since last year, for this year's AGM there were close to 80 members (out of 240 nomination forms received) who submitted their forms without first renewing their 2022 membership. I hope we can do better next year.

2. FINANCE

Our consolidated financial position continues to remain healthy. The level of reserve is not excessive as the Section comprises 32 sub-entities (30 Chapters and 2 Affinity Groups), each recognized as a full-fledged IEEE Organizational Unit in terms of its privilege to organize events and manage its own finance.

The Section also helped to open 8 conference bank accounts for the conferences – 5 for 2021, 2 for 2022 and 1 for 2023 conferences, with the OCBC Bank.

Our Treasurer Prof Arokiaswami Alphones, together with the Section Accountant, Ms Joy Leong have worked tirelessly over the past year to maintain our accounts in an efficient manner, and would like to thank them for their invaluable services.

3. STUDENT ACTIVITIES

A new Singapore Institute of Technology (SIT) student branch was formed on 28 July 2021. IEEE Singapore Section now has 4 active Student Branches - NUS, NTU, SUTD and SIT. and 2 IEEE-HKN Branches – NUS and SUTD. These Student Branches organize regular educational workshops and competitions for the IEEE Student Members and for reaching out to non-members. They serve as platforms for connecting IEEE Members and the Student Members. They are also effective channels for IEEE to reach out to young Engineering students in the local universities. Despite the pandemic situation and physical activities cannot be held, the Student Branches remain very active by organizing virtual events.

4. LIFE MEMBERS AFFINITY GROUP

The Life Members Affinity Group (LMAG) in Singapore was established on 9 March 2021. Prof HB Gooi, NTU, is the coordinator and the inaugural Chair and reporting to Mr Rajendra Kumar Asthana, Chair of Life Member Committee, Region 10.

5. E-BROADCAST

Regular broadcasts containing information on seminars, talks, conferences, social events and membership benefits have been sent to IEEE members in Singapore. This was well coordinated by Dr Michelle Shao, who is also the Section Secretary.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 MEMBERSHIP DEVELOPMENT PROGRAMS

Below are the tables for the past 3 years' membership:

IEEE Grade Description	Active Members (as at 11 November 2021)
Student Member	131
Graduate Student Member	296
Associate Member	13
Member	1,305

Senior Member	444
Fellow	58
Life Member	30
Life Senior	27
Life Fellow	8
TOTAL	2,312

IEEE Grade Description	Active Members (as at 26 November 2020)
Student Member	138
Graduate Student Member	280
Associate Member	18
Member	1,378
Senior Member	448
Fellow	53
Life Member	31
Life Senior	27
Life Fellow	8
Affiliate	43
SA Member	7
TOTAL	2,431

IEEE Grade Description	Active Members (as at 3 December 2019)
Student Member	127
Graduate Student Member	352
Associate Member	32
Member	1,452
Senior Member	445
Fellow	51
Life Member	31
Life Senior	25
Life Fellow	7
Affiliate	1
TOTAL	2,523

Singapore Section met both its **recruitment** and **retention** goals for the 2021 membership year. A big “Thank You” to all of you for your efforts and support!

Dated 30-Nov 2020
Source: Explore/ Membership Stats/ MD Goals



**2021 Outstanding Section Membership
Recruitment and Retention Performance**

Singapore Section

B.2 Chapter Activities

The Singapore Section has 30 Chapters and 2 Affinity Groups. As at 28 October 2021, 199 activities have been reported via L31 Vtools system. Activities taking place after 28 October 2021 were reported subsequently after completion of the activities.

L31 submission status based on IEEE vTools System as at 28 October 2021:

SN	Section / Chapters / Affinity Groups	Tech	Admin	Non Tech	Total
1	Aerospace and Electronic Systems/Geoscience and Remote Sensing Joint Chapter	5	4	1	10
2	Broadcast Technology Chapter	9	2		11
3	Circuits and Systems Chapter	12	2		14
4	Communications Chapter				0
5	Computational Intelligence Chapter	8	4		12

6	Computer Chapter	2	1		3
7	Consumer Technology Chapter	1			1
8	Control Systems Chapter	2			2
9	Council on RFID Chapter	6	4		10
10	Education Chapter	1			1
11	Electromagnetic Compatibility Chapter	13	1		14
12	Engineering in Medicine and Biology Chapter	1			1
13	Industrial Electronics Chapter		4		4
14	Industry Applications/ Power Electronics Joint Chapter	7	3		10
15	Intelligent Transportation Systems Chapter				0
16	Magnetics Society Chapter	7		1	8
17	Microwave Theory and Techniques/ Antennas and Propagation Joint Chapter	16	1		17
18	Nanotechnology Council Chapter				0
19	Nuclear and Plasma Science Chapter				0
20	Oceanic Engineering Chapter		1		1
21	Photonics Chapter	3	1	4	8
22	Power and Energy Chapter	13		1	14
23	Reliability/ Electronics Packaging/ Electron Devices Chapter	1			1
24	Robotics & Automation Chapter				0
25	Singapore Section		1		1
26	Sensors Council Chapter		1	2	3
27	Signal Processing Chapter	12	2		14
28	Solid-State Circuits Chapter	2	3		5
29	Systems, Man and Cybernetics Chapter	1	2		3
30	Technology and Engineering Management Chapter	1			1
31	Vehicular Technology Chapter	1	1		2
32	Life Members Affinity Group	1	2	2	5

33	Women in Engineering Affinity Group	6	11	5	22
34	Young Professionals Affinity Group			1	1
	TOTAL	131	51	17	199

As of 28 October 2021, 199 activities have been reported via the vTools system. Chapters who have not reported any past activities or have activities after 28 October should report in the vTools by 1 February 2022.

B.3 Industrial Activities




10/11/2021 Wednesday

In Focus: Advancing Technology for Humanity, brought to you by IEEE

Join IEEE for a series of interactive talks and workshop on the 'New Norm'.



NED Talk

9.45am - 10.15am

Engineering a Sustainable Future

Er Lee Chuan Seng
Chairman
National Environment Agency (NEA)



NED Talk

10.40am - 11.10am

Introduction to IEEE and how IEEE is contributing to the pandemic response

Mr Steve Welby
Executive Director & Chief Operating Officer
IEEE



NED Talk

11.50am - 12.20pm

Travel in the New Normal

Dr Edward Koh
Executive Director
Singapore Tourism Board



Guided Tour

2.00pm - 4.00pm

Introduction to Huawei International Labs

Huawei International Pte Ltd



Guided Tour

2.00pm - 4.00pm

Rohde & Schwarz Singapore Guided Facility Tour with Live Product Demo Presentations

Rohde & Schwarz
Regional Headquarters Singapore Pte Ltd

PROFESSIONAL ACTIVITIES

RE-ENGINEER

AN EXPERT PANEL SERIES ON PROFESSIONAL DEVELOPMENT FOR TECHIES



IEEE SINGAPORE SECTION presents
RE-ENGINEER
An expert panel series on professional development for techies...
PROFESSIONAL COMMUNICATION
18 September (Saturday)
10.30 - 11.30 AM SGT (GMT +8)
Register: bit.ly/re-engineer_comms
Follow us @ieeesingapore
JOIN US & WIN PRIZES



Germaine Shalla
Deputy Director, A*STAR
Graduate Academy



Sinjini Sengupta
Founder, Lighthouse |
Author & TEDx Speaker



Aravindhan Anbazhagan
Founder, EduRiseGlobal &
Editor-in-Chief, IMPACT,
IEEE Global Young
Professionals Blog



INDUSTRY-ACADEMIA COLLABORATION

FOR RESEARCH AND INNOVATION WORKSHOP, BRIDGING THE GAP

PROJECT TITLE: INDUSTRY-ACADEMIA COLLABORATION FOR RESEARCH AND INNOVATION WORKSHOP, BRIDGING THE GAP.

Location: Online (Zoom) platform and open to all participants across Malaysia & Singapore.

Dates: 2nd & 3rd October 2021

Section: IEEE Malaysia Section

Section Collaborator: IEEE Singapore Section

OBJECTIVES:

This two-day workshop aims: -

1. To provide a platform for experts from industry and academia to link, share and discuss the current industry issues.
2. To enhance the understanding to the relevant parties of how to select research projects that are relevant to the industry needs.
3. To promote a collaborative relationship between industry and academia to work on research and possible co-innovation in the focused topic.

B.4 Students Activities

IEEE Singapore Section has 4 active Student Branches - NUS, NTU, SUTD and SIT. and 2 IEEE-HKN Branches – NUS and SUTD. The SIT Student Branch was formed on 28 July 2021. These Student Branches organize regular educational workshops and competitions for the IEEE Student Members and for reaching out to non-members. They serve as platforms for connecting IEEE Members and the Student Members. They are also effective channels for IEEE to reach out to young Engineering students in the local universities

Despite the pandemic situation and physical activities cannot be held, the Student Branches remain very active by organizing virtual events.

B.5 Affinity Group Activities

The Life Members Affinity Group (LMAG) in Singapore was established on 9 March 2021. Prof HB Gooi, NTU, is the coordinator and the inaugural Chair and reporting to Mr Rajendra Kumar Asthana, Chair of Life Member Committee, Region 10.

IEEE WOMEN IN ENGINEERING (WIE) AFFINITY GROUP

Chairperson: Noori Kim



(A) ACTIVITIES FOR THE YEAR 2021:

The IEEE WIE Singapore group has actively contributed to a multitude of

activities listed below:

Administrative	14
Nontechnical (Networking, Social):	6
Professional (Personal Development, Industry)	13
Technical (Conferences, Webinar)	15
Total (Dec 2020 to Nov 2021)	48

- **Administrative Meetings (10)**

WIE AdCom regularly met over web platforms (Zoom) to discuss, plan, and organise our various meetings over the course of the year 2021. We organised ten administrative meetings for the year 2021;

1. IEEE WIE January Internal meeting (28/1/2021 18:00)
2. IEEE WIE February Internal meeting (23/2/2021 18:00)
3. IEEE WIE March Internal meeting (29/3/2021 19:00)
4. IEEE WIE April Internal meeting (26/4/2021 16:30)
5. IEEE WIE May Internal meeting (31/5/2021 18:00)
6. IEEE WIE June Internal meeting (29/6/2021 18:00)
7. IEEE WIE July Internal meeting (28/7/2021 18:00)
8. IEEE WIE August Internal meeting (31/8/2021 18:00)
9. IEEE WIE September Internal meeting (21/9/2021 18:00)
10. IEEE WIE October Internal meeting (21/10/2021 18:00)

Besides, WIE jointly organised 4 administrative meetings with Young Professional Affinity Group in Singapore to prepare IEEE Singapore Festival 2021:

1. IEEEESGFest2021 Debriefing Meeting (20/10/2021 18:00)
2. IEEEESGFest2021 Organizing Committee Meeting 3 (28/9/2021 18:00)
3. IEEEESGFest2021 Planning Meeting 2 (22/9/2021 19:00)
4. IEEEESGFest2021 Planning Meeting 1 (15/9/2021 18:00)

Apart from face-to-face meetings, executive members also communicate with each other via the WiE AdCom WhatsApp group to keep the information up to date. The minutes of each meeting are attached in an appendix.

Nontechnical, Professional, and Technical events are further strategised into three event pillars to engage various stakeholders: WiE Tech, WiE Networking, and WiE Mentor.

- **WiE Tech (14)**

1. **IEEE WIE visits Schneider Electric Innovation Hub Singapore**

Schneider Electric hosted the field visit and they shared information regarding their innovative technologies with IEEE WIE (9/12/2020 18:00)

2. **From Data To Machine Intelligence and Beyond**

From JUW Saturdays Webinar series comes the 24th webinar entitled "From Data To Machine Intelligence and Beyond" which is organised by IEEE JUW WIE SC while co-organised by IEEE JUW SB in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Chapter (9/1/2021 15:30)

3. **Fireside chat by IEEE WIE SG in iNTUition v7.0**

A fireside chat has conducted in the event to motivate the female engineering students to achieve their career goals. Furthermore, IEEE WIE SG contributed to the judge board too. (28/2/2021 16:00)

4. **How to Handle Digital Marketing and SEO by a Computer Engineer? - Tools and Techniques**

IEEE JUW SB and IEEE JUW WIE SC, in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Affinity Group are bringing to you the 4th webinar of the year 2021 from their JUW Saturdays webinar series. Speaker: Ms. Ayman Khalid Siddiqui (3/4/2021 15:30)

5. **UI/UX and Beyond**

IEEE JUW SB and IEEE JUW WIE SC, in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Affinity Group are bringing to you the 5th webinar of the year 2021 from their JUW Saturdays webinar series. Speaker: Ms. Sehrish Rehman (10/4/2021 15:30)

6. **Impact of Pandemics on the European Power Grid**

Power Transmission System Operators (TSOs) are working full speed and across borders to keep the lights on in Europe. Ana has provided a brief overview on ENTSO-E, on 50Hertz (the TSO operating in the North-East of Germany) and how the company manages a secure operation of the power system while having the safety of their employees as a first priority. (14/4/2021 16:00)

7. **Utilising Microsoft Azure for your Data Solution**

IEEE JUW SB and IEEE JUW WIE SC, in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Affinity Group, are bringing a special webinar of the year 2021 from their JUW Saturdays webinar series. Speaker: Ms. Almas Danish (26/5/2021 11:30)

8. **The Seventh IRC Conference on Science, Engineering and Technology (IRC-SET) 2021**

The event was co-organised by International Research Club, IEEE WIE SG, IEEE BTS SG, and IEEE ITSS SG. IEEE WIE organised a special session at the conference, and Dr. Shilpa and Dr. Noori chaired the session. Furthermore, Dr. Aishwarya and Dr. Noori served as the publicity chairs of the conference. (7/8/2021 8:30)

9. **NewRIISResearch Conference 2021**

Newcastle Research & Innovation Institute (NewRIIS) is organising Newcastle Research Conference 2021 in collaboration with IEEE WIE SG, IEEE PES SG, and Schneider electric to provide a platform for talented researchers to share and exchange innovative ideas of leading-edge research in

multi-disciplinary areas such as Mechanical Engineering, Electrical Power Engineering, Chemical Engineering, and Marine Technology. (26/8/2021 10:00)

10. IEEEESGFest2021 [Tech Webinar]: Deterministic, scalable, and entanglement efficient initialisation of arbitrary quantum states

This event is organised to celebrate the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups (6/10/2021 19:00)

11. IEEEESGFest2021 [Tech Webinar]: FPGA Applications in IoT Environments

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (7/10/2021 19:00)

12. IEEEESGFest2021 [Tech Webinar]: The Psychology of Preference through Insights Discovery

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (8/10/2021 12:00)

13. IEEEESGFest2021 [Tech Webinar]: A Short Story of 5G Radio Access Network Evolution - An Industry Perspective

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (8/10/2021 19:30)

14. IEEE Dedicated Day - Developments in Sustainable Technologies

The IEEE Singapore Section is organising a dedicated day under the 12th edition of the National Engineers Day (NED) 2021 – Singapore's largest engineering festival organised for students, engineering professionals, and the public. As a part of this event, the IEEE Women in Engineering (WiE) in Singapore affinity group will host a panel discussion session under the topic (a breakout session 4) "Developments in Sustainable Technologies." Three fantastic speakers are invited for this event: Prof. Celia Shahnaz

Chair (IEEE Women in Signal Processing), Prof. Lina Bertling Tjernberg (KTH Royal Institute of Technology, Sweden) Prof. Luciënne T.M. Blessing (Co-Director, SUTD International Design Centre) (10/11/2021 18:30)

• **WiE Networking (11)**

1. Essentials for Campus to Corporate for Success

From JUW Saturdays Webinar series comes the 21st webinar entitled "Essentials for Campus to Corporate for Success" which is organised by IEEE JUW WIE SC while co-organised by IEEE JUW SB in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Chapter. Speaker: Ms. Nishi Shetty (12/12/2020 15:30)

2. Digital Collaboration in Multi-Generational Workforce

From JUW Saturdays Webinar series comes the 22nd webinar entitled "Digital Collaboration in Multi-Generational Workforce" which is organised by IEEE JUW WIE SC while co-organised by IEEE JUW SB in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Chapter (19/12/2020 15:30)

3. Using Technology in the Corporate World

From JUW Saturdays Webinar series comes the 23rd webinar entitled "Using Technology in the Corporate World" which is organised by IEEE JUW WIE SC while co-organised by IEEE JUW SB in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Chapter Speaker: Ms. Tooba Zaheer Shaikh (26/12/2020 15:30)

4. International Women's Day Video Contest

In celebration of international women's day, IEEE Women in Engineering Singapore (IEEE WiE SG) to brings this contest to promote women's achievements, celebrate their successes, share their stories and increase visibility while calling out inequality. The published version of the video can be found in LinkedIn and Facebook.

LinkedIn: <https://www.linkedin.com/feed/update/urn:li:activity:6774526558238580736>

Facebook: <https://fb.watch/48fankokQ7/>
(8/3/2021 12:00)

5. Connecting Energy with Purpose to Excel in the Corporate World

IEEE JUW SB and IEEE JUW WIE SC in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Affinity Group are bringing to you the 2nd webinar of the year 2021 from their JUW Saturdays webinar series. Speaker: Ms. Marriam Ahmed (13/3/2021 15:30)

6. Re-Engineer panel on Professional Communication

A panel discussion with three speakers regarding effective communication strategies.

The three speakers were; 1. Aravindhan Anbazhagan, Editor-in-chief, IMPACT, IEEE Global Young Professional Blog 2. Sinjini Sengupta, Founder Lighthouse 3. Germaine Shalla, Deputy Director A*STAR, Graduate Academy A*STAR (18/9/2021 10:30)

7. IEEEESGFest2021 (Professional Webinar): Explore IEEE Using PVN Model

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (5/10/2021 19:00)

8. IEEEESGFest2021 (Professional Webinar): Mind Matters

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (6/10/2021 12:00)

9. IEEEESGFest2021 [Panel]: Re-Engineer - Career Management

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (9/10/2021 9:00)

10. IEEEESGFest2021 [Panel]: Building a Deep Tech Startup in Singapore

This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups.
(9/10/2021 10:00)

11. IEEEESGFest2021: Lucky Draw and IEEE family day closing ceremony

The people who shared the events on social media or submitted the feedback forms were the participants of the lucky draw. This event is organised in celebration of the 12th annual IEEE Day across the globe on 5th October 2021. This festival was jointly organised by the IEEE Women in Engineering Singapore and IEEE Young Professionals Singapore affinity groups. (9/10/2021 11:30)

• **WiE Mentor (9)**

1. Celebrating International Women's Day with IEEE JUW Student Branch

IEEE JUW SB and IEEE JUW WIE SC are celebrating International Women's Day through the 1st webinar of the year 2021 from the JUW Saturdays webinar series in collaboration with IEEE Karachi WIE Chapter and IEEE Singapore WIE Chapter. Speakers: Dr Miranda K. Brawn Esq and Ms. Ayesha Kaleem (6/3/2021 15:30)

2. How to Handle Stress as a University Student

As a celebration of International Women's Day IEEE WIE SG and Newcastle Research and Innovation Institute, Singapore (NewRIIS) introduced this mental wellness series. (8/3/2021 17:00)

3. Virtual Networking Tour With Visionary WIE Leaders

Online networking session "Virtual Networking Tour With Visionary WIE Leaders" to celebrate International Women's Day by IEEE R10 Women in Engineering Committee and Dr. Aishwarya represented IEEE WIE Singapore as an invited speaker. (8/3/2021 17:30)

4. Female student FYP mentoring session

The event discussed the key aspects of working on final year projects with the aim of encouraging female students to efficiently and effectively work on their FYP projects. (12/5/2021 14:00)

5. Interactive and inspirational session of the series - Women in Engineering, science, and technology Episode 1

An interview of successful women who have been trailblazers in their respective domains and whose story we feel is worthy of sharing as female leaders and mentors. This series will bring inspiration to so many other women out there and can offer advice and insights. Interviewee: Dr Hla Nu Phyu (22/7/2021 14:30)

6. Interactive and inspirational session of the series - Women in Engineering, science, and technology Episode 2

An interview of successful women who have been trailblazers in their respective domains and whose story we feel is worthy of sharing as female leaders and mentors. This series will bring inspiration to so many other women out there and can offer advice and insights. Interviewee: Dr Aishwarya Bandla (4/9/2021 19:00)

7. Interactive and inspirational session of the series - Women in Engineering, science, and technology Episode 3

An interview of successful women who have been trailblazers in their respective domains and whose story we feel is worthy of sharing as female leaders and mentors. This series will bring inspiration to so many other women out there and can offer advice and insights. Interviewee: Dr Agata Blasiak (25/10/2021 18:30)

8. IEEE WIE Project Based Learning Camp (Learn - Collaborate - Innovate) - Part 1

The main objectives/goals of the project-based learning camp are to enrich the Project-Based Learning Approach in School Students around the Globe with the support of Women in Engineering Affinity Group. The PBL School Camp is supported by IEEE WIE UP Section, WIE Gujarat Section, WIE Madras Section, WIE Bombay Section, WIE Hyderabad Section, WIE Thailand Section & WIE Singapore Section AGs. (20/11/2021 8:00)

9. IEEE WIE Project Based Learning Camp (Learn - Collaborate - Innovate) - Part 2

The main objectives/goals of the project-based learning camp are to enrich the Project-Based Learning Approach in School Students around the Globe with the support of Women in Engineering Affinity Group. The PBL School Camp is supported by IEEE WIE UP Section, WIE Gujarat Section, WIE Madras Section, WIE Bombay Section, WIE Hyderabad Section, WIE Thailand Section & WIE Singapore Section AGs. (25/11/2021 8:00)

(B) FUTURE PLANS:

WiE SG will continue to work with various community collaborators, including SGInnovate, NTUC, BNY Mellon, Schneider Electric, and other IEEE WiE groups and chapters in other countries. We will explore connections with Singapore institutions such as ASTAR, NUS, NTU, SIT, Newcastle University in Singapore, etc., promote and mentor young female engineers. The team plans to organise WiE special session at a tech leadership conference, continue WiE networking, and work on a community establishment for mentorship and career events.

(C) SUMMARY:

We had organised **14 administrative meetings**, which drove the whole year for exciting activities. WiE strategised our events in 3 event pillars: WiE Networking Nights, WiE tech and WiE Mentor. WiE Singapore also built collaborations with several WiE groups in Region 10 and participated and organised several events under the regional banner. Internally, WiE worked with strong partners, including the IEEE Singapore office, YP Singapore, EMB Singapore, PES Singapore and local organisations such as NTUC Associate, IRC.

In total, we have **34 activities** in terms of social, technical, networking and promoting an event for the year 2021. We appreciate the strong support from IEEE Singapore Section, IEEE R10 WIE. We believe WIE SG can contribute more interesting and meaningful events and activities both in social and technical and serves as a communication bridge for women engineers and scientists with the world-leading IEEE science and technology community.

In the coming year, we will continue to work closely with our collaborators, networks and enhance connection with professional bodies to promote women engineers in Singapore.

IEEE YOUNG PROFESSIONALS AFINITY GROUP

Chairman: MD Arif Hussain Ansari

(A) ACTIVITIES FOR THE YEAR 2021:

• **Administrative Meetings**

No.	Title	Date	Host(s)	Location
1	IEEE YP Singapore 2021 1st Internal Meeting	14/6/2021 19:00	YP00025	Virtual
2	IEEEESGFest2021 Planning Meeting	15/9/2021 18:00	YP00025, WE00025	Virtual
3	IEEE YP Singapore 2021 2nd Internal Meeting	31/8/2021 19:00	YP00025	Virtual
4	IEEE YP Singapore 2021 3rd Internal Meeting	21/9/2021 20:00	YP00025	Virtual
5	IEEEESGFest2021 Planning Meeting 2	22/9/2021 19:00	YP00025, WE00025	Virtual
6	IEEEESGFest2021 Organizing Committee Meeting 3	28/9/2021 18:00	YP00025, WE00025	Virtual
7	IEEEESGFest2021 Debriefing Meeting	20/10/2021 18:00	YP00025, WE00025	Virtual

- **Technical Seminars and Talks**

No.	Title	Date	Host(s)	Location
1	Re-Engineer panel on Professional Communication	18/9/2021 10:30	YP00025, WE00025	Virtual
2	IEEEESGFest2021 [Professional Webinar]: Explore IEEE Using PVN Model	5/10/2021 19:00	WE00025, YP00025	Virtual
3	IEEEESGFest2021 [Professional Webinar]: Mind Matters	6/10/2021 12:00	WE00025, YP00025	Virtual
4	IEEEESGFest2021 [Tech Webinar]: Deterministic, scalable, and entanglement efficient initialization of arbitrary quantum states	6/10/2021 19:00	WE00025, YP00025	Virtual
5	IEEEESGFest2021 [Tech Webinar]: FPGA Applications in IoT Environments	7/10/2021 19:00	YP00025, WE00025	Virtual
6	IEEEESGFest2021 [Tech Webinar]: The Psychology of Preference through Insights Discovery	8/10/2021 12:00	YP00025, WE00025, STB99522	Virtual
7	IEEEESGFest2021 [Tech Webinar]: A Short Story of 5G Radio Access Network Evolution – An Industry Perspective	8/10/2021 19:30	YP00025, WE00025	Virtual
8	IEEEESGFest2021 [Panel]: Re-Engineer – Career Management	9/10/2021 9:00	WE00025, YP00025	Virtual
9	IEEEESGFest2021 [Panel]: Building a Deep Tech Startup in Singapore	9/10/2021 10:00	YP00025, WE00025	Virtual
10	IEEE ComSoc AP YP Workshop: Building Diverse Volunteering Teams	8/11/2021 19:00	ComSoc APB, CH10022, YP00025	Virtual

- **Social Events**

No.	Title	Date	Host(s)	Location
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1	IEEE YP 25th Anniversary Around the World Video	8/8/2021 17:30	YP00025	Singapore
2	IEEEESGFest2021: Lucky Draw and IEEEESGFest2021 closing ceremony	9/10/2021 11:30	YP00025, WE00025	Virtual

(B) FUTURE PLANS:

- New executive committee for 2022.
- IEEE Singapore Festival and/or IEEE Day 2022 activities.
- A few technical and professional development talks.
- Social events (hopefully physical).

(C) SUMMARY:

Despite the challenges of the ongoing COVID-19 pandemic, the IEEE Young Professionals Singapore Affinity Group has organized numerous activities during 2021, the most notable of which is the IEEE Singapore Festival 2021, which was a collaboration with the IEEE Women in Engineering Singapore Affinity Group (for the 2nd year in a row). We have reached more than 190 participants, including those both in Singapore and overseas. Many of our events have been possible through the continued generous support of the IEEE Singapore Section, IEEE Asia-Pacific Ltd., and various technical society chapters in Singapore. We aim to continue contributing and organizing activities that are meaningful to the YP and general IEEE communities.

PART C - OTHERS

C.1 Special Events

C.2 Relationship with National and International Societies and Non-Government Organizations (NGO)

- IES-IEEE Joint medal of excellence being continued. The Institution of Engineers, Singapore (IES) and the Institute of Electrical and Electronics Engineers, Inc. (IEEE) intend to continue with the IES/IEEE Joint Medal of Excellence Award. The aim of the award is to

promote engineering as a profession and to recognize an individual for his/her contributions in Engineering that have had far-reaching impacts on society. The award is expected to inspire the young to take up engineering as a profession. This award is highly prestigious and the recipient will be recognized not only in Singapore but also the region and around the world.

PART D - GOALS AND PLANS

D.2 Goals and Future Plans

Membership Development

To attract new members as well as make existing ones retain their membership.

1. Tie up with hotels and popular attractions for special discounts
2. Hold regular net-working events with topics that are of interest members
3. Organize movies events for networking
4. To add other attractions as membership benefits
5. Offer seminars / trainings / short courses with NTUC
6. List of activities to be included in website like a calendar of events

Engaging Students

To increase support for HKN activities. To encourage the HKN chapters to lead outreach activities in schools.

To continue to support activities like Graduate Student Symposium (GSS) organized by YP at NUS and towards membership development.

Engaging Industry

The section EXCO has formed a sub-committee headed by Dr. Amit Gupta to brainstorm about ways to promote IEEE membership among industry professionals in Singapore.

Industry Activities:

Industry activities team has started co-organizing activities and events. In 2021 we had co-organized “**IEEE Dedicated Day**” along with IES to celebrate the World Engineers Summit (WES) and National Engineers Day (NED) on 10th November 2021.