TO: IEEE Member and Geographic Activities Board

FROM: Celia Shahnaz, Chair, IEEE Women in Engineering Committee

SUBJECT: IEEE Women in Engineering (WIE) Report – June 2023

1. Chair's Message / 2023 Direction

IEEE WIE ILC way forward, more engagement and partnership with IEEE WIE Forum USA East and IEEE WIE magazine, collaboration initiatives with other organizational units, such as TAB (societies), IEEE EAB, IEEE HKN, IEEE HTB, IEEE MOVE, IEEE Foundation, IEEE Standard Association, IEEE Smart village, IEEE REACH, IEEE Future Directions committee, IEEE New initiative Committee, IEEE Entrepreneurship Committee have been the priorities in this initial period.

IEEE WIE International Summits (ILS) 2023 were kicked-off with a suggestion to focus on special events related to climate change and sustainability.

An ad hoc committee for the future of IEEE WIE international Leadership Conference (ILC) was formed and discussion items were brainstormed during IEEE WIE Annual meeting, May 5-6, 2023.

IEEE WIE have worked with the IEEE Foundation to launch activities as a valued partner during their 50 th anniversary, such as IEEE WIE Family Care Grant Program.

For launching IEEE WIE day, Enhancing regional WIE meet ups and WIE rebranding, IEEE WIE has secured MGA surplus funding.

IEEE WIE also dedicated time to submit proposal to TAB Committee on Standards. to create awareness among WIE members about standard developments in the area of Climate change such as clean energy, Smart sensors, Smart health etc, IEEE WIE is included as one of the final candidates for this competitive call for seed funding opportunities.

IEEE WIE has launched The IEEE Women in Technology and Leadership Award and Manga Story Contest 2023. IEEE WIE prepared a video tutorial for how to submit a good IEEE WIE award nomination to enhance the number of applications and the outcome is positive.

Please find below the details of each subcommittee, goals and plan.

Beside this, IEEE WIE is also presenting two motions (MGA Operations Manual Changes to Section 4.20 IEEE Women in Engineering (WIE) Committee, IEEE WIE Family Care Grant Program) to the MGAB during the meeting series.

2. 2023 IEEE WIE Committee

The 2023 IEEE WIE Committee is comprised of 10 voting members, 10 Region Coordinators, 42 Society and Council Liaisons, and 2 Organization Unit Liaisons.

The WIEC appointed Jyothi Ramaswamy (R10) as the 2023 Treasurer. The IEEE annual ballot will include candidates for the position of 2024 WIEC Chair-Elect listed at https://www.ieee.org/about/corporate/election/candidates.html

After two years, the WIE Committee held its annual meeting in person (hybrid) on May 5-6, 2023 in conjunction with the IEEE VIC Summit and Honors Ceremony in Atlanta, GA, USA. The meeting comprised presentations from the IEEE President, IEEE TA Board Chair/Vice President TA, IEEE Executive Director, IEEE MGA Board Cahir/Vice President MGA and more then 14 different IEEE OUs and Committees, 5 IEEE WIE Region Representatives, 7 IEEE WIE Society Representatives and reports out for the IEEE WIE magazine, IEEE WIE Forum USA East and IEEE WIE ILC.



3. Membership & Affinity Groups

A) WIE Membership: There were 31,699 WIE Members as of April 2023, a 19%
increase in WIE membership Year-over-Year (YoY).

Geographic IEEE WIE Membership - April 2023									
	Higher Grade w/o GSM		Students		Total				
	2023	2022		2023	2022		2023	2022	
Region	#	#	% Change	#	#	% Change	#	#	% Change
1	384	358	7.3%	108	102	5.9%	492	460	7.0%
2	327	306	6.9%	91	103	-11.7%	418	409	2.2%
3	355	353	0.6%	166	161	3.1%	521	514	1.4%
4	249	244	2.0%	80	77	3.9%	329	321	2.5%
5	261	266	-1.9%	145	131	10.7%	406	397	2.3%
6	577	572	0.9%	177	165	7.3%	754	737	2.3%
R 1-6	2,153	2,099	2.6%	767	739	3.8%	2,920	2,838	2.9%
7	189	190	-0.5%	205	166	23.5%	394	356	10.7%
8	852	770	10.6%	3,995	3,437	16.2%	4,847	4,207	15.2%
9	289	232	24.6%	2,093	1,593	31.4%	2,382	1,825	30.5%
10	1,119	944	18.5%	20,037	16,462	21.7%	21,156	17,406	21.5%
R 7-10	2,449	2,136	14.7%	26,330	21,658	21.6%	28,779	23,794	21.0%
TOTAL	4,602	4,235	8.7%	27,097	22,398	21.0%	31,699	26,633	19.0%

B) **WIE Affinity Groups:** There are **1,188** WIE Affinity Groups and WIE Student Branch Affinity Groups as of May 2023. There continues to be steady growth in WIE Affinity Groups with 27+ new groups (4 Section WIE AGs) formed already in 2023.

Region	# Affinity Group	# Student Branch	Total Affinity Groups
R1	12	4	16
R2	11	9	20
R3	15	10	25
R4	9	4	13
R5	10	5	15
R6	16	6	22
R7	18	17	35
R8	41	173	214
R9	27	216	243
R10	53	532	585
Total	212	976	1188

4. Women in Leadership & Technology Award - Call for Nominations Deadline closed 5 June 2023



The IEEE Women in Technology and Leadership Award Fund is established to recognize women technologists for their outstanding contributions to engineering and technology and empowerment of diverse populations.

This award is sponsored by Walmart Global Tech.

As of 31st May, there are 19 nominations.

5. IEEE WIE Manga Story Contest 2023 – Call for Submissions Deadline was 31 May 2023



The IEEE Women-in-Engineering (WIE) is organizing a <u>Manga Story</u> <u>Contest</u> to help bridge the gender gap and promote gender diversity The winners' stories will be plotted in the format of Manga comics and will be socialized with the community through the IEEE WIE Newsletter and website. The Manga plots will be available not only to the IEEE members, but also used as a tool to engage young generations particularly girls through IEEE WIE 1000+ Affinity Groups globally.

As of 31st May there were 35 story submissions which have been sent to the judging committee.

6. Senior Membership Elevation Drive

Senior Membership Drive was launched in early April. Posts highlighting the benefits, eligibility, and tips for applying and requesting references have been shared via the Collabratec and LinkedIn platforms. The information has been well received and has been instrumental in starting conversations around membership elevation.



7. WIEC Subcommittee and Ad Hoc Committee Activities

In April 2023, the chairs of the WIEC Subcommittee presented the tasks for the upcoming year for their respective groups, the tasks are as follows:

A. Awards & Recognition

Chairs: Jyotika Athavale, Jing Dong

Objectives and Expectation:

- Recognition for WIE members and WIE Affinity Groups (AG).
- Review nominations for annual IEEE WIE awards.
- Recognition for academia and industry partners.
- Best practices session from previous award winners.
- Awards ceremony continuity.
- Assessment of the awards historic nominations and Regional diversity.

Applications for the following WIE awards are currently under review by the subcommittee:

• **IEEE Women in Engineering Affinity Group of the Year Award** recognizes an IEEE WIE Affinity Group that has shown outstanding leadership and initiative in organizing activities.

• **IEEE Women in Engineering Student Branch Affinity Group of the Year Award** recognizes an IEEE WIE Student Affinity Group that has shown outstanding leadership and initiative in organizing activities.

• **IEEE Women in Engineering Inspiring Member of the Year Award** recognizes a professional member of IEEE WIE who has made an outstanding contribution to IEEE WIE, their community, and the engineering community, through their dedication and involvement in projects or activities directed toward fulfilling one or more of the IEEE WIE goals and objectives.

• **IEEE Women in Engineering Inspiring Student Member of the Year Award** recognizes an undergraduate/graduate student member of IEEE WIE who has overcome barriers to pursue engineering and/or who has made a personal impact in their community through their dedication and involvement in projects or activities directed toward fulfilling one or more of the IEEE WIE goals and objectives.

The winners will be recommended by the IEEE WIE Awards Subcommittee and approved by the IEEE WIE Committee in July.

B. Education/ Outreach

Chairs: Keeley Crockett, Sharon Devivo, Connie Kelly

Goals and Objectives:

REACHing Girls: Collaboration between IEEE REACH and STAR - Many female students are used to having social studies pushed rather then STEM. REACH has a strong library of historical material including much material on women in STEM. Using stories of women who made significant contributions to technology is a backdoor way to introduce female students to the possibilities of STEM.

• Identify REACH material that highlights female involvement during the second and third quarters.

• Organize material during the third quarter by Target age group so it can be more easily distributed.

• Recruit members to become familiar with the material and possibly act as facilitators for in person activities during the fourth quarter.

Action Plan:

STARring Girls - The TryEngineering Volunteer Portal and the Teacher Portal have numerous activities and support material which can be used to enhance the material in REACH.

• Those activities that are most closely align to the REACH modules should be identified for supplemental investigations into topics forming the basis of a STAR program during the second and third quarters.

• Both classrooms and "out of school" venues such as libraries and youth organizations should be investigated and prioritized for the best opportunities for collaboration ongoing throughout the year.

• A portfolio of potential correspondence with target venues and classroom material should be developed during the third quarter after program materials are identified so that the program is repeatable.

• Trained facilitators should review the portfolio of organized material for a campaign to approach as many venues as possible during the third and fourth quarters.

C. International Leadership Summits

Chair: Sadhana Attavar

Goals and Objectives:

- Selection of ILS from proposals received
- Collection of status of ILS from all ILS Chairs
- Training webinar for ILS Guidelines about special events related to climate Change and WIE membership promotion during ILS
- Online Meeting with all ILS Chairs
- Attending ILS Summits wherever possible
- Review of Report of ILS Summits
- Future events after ILS (IEEE WIE Global Summit)
- Preparation of rubric and selection criteria to evaluate the top 5 ILS (so that we can support them with 500 US\$ for the next ILS).
- Preparation of guidelines for WIE Global Summit
- Forum of past ILS Organizers and Creation of manual of best practices

Action Plan

Date	Action	Accountable
February	Evaluation and Selection of ILS from proposals received	WIEC Chair, ILS Sub-Comm Chair, WIE Staff
March	ILS Guidelines and Collection of status of ILS from all ILS Chairs (Google Form)	ILS Sub-Comm Chair ,WIE Staff
April	1st ILS Training Webinar for 2023 IEEE WIE ILS Chairs) Special events related to climate Change and WIE membership promotion during ILS	ILS Sub-Comm,WIE Staff
May	KO Meeting with 2023 ILS Chairs - (5 min presentation for each team – 9 teams)	ILS Sub-Comm
June-July	Rubric for Selection of top 5 ILS Proposals for II year	ILS Sub-Comm
August-September	Forum of past ILS Organizers and Creation of manual of best practices, 2nd ILS Training Webinar for All IEEE WIE AG Chairs	ILS Sub-Comm
October-November	Preparation of Guidelines for IEEE WIE Global Summit	ILS Sub-Comm
December	Review of Report of ILS Summits	ILS Sub-Comm

D. Industry & Entrepreneurship:

Chairs: Samina Husain, Kumudhini Ravindra, Susana Lau, Lei Wang

Goals and Objectives

- Enhanced industry engagement by events including mentoring programs.
 - Leverage the 2022 WIE Industry Ad Hoc partnership efforts and setup a pilot program
 - bring the benefits of an IEEE WIE partnership to industry partners.
 - Re-engage with Tata Consultancy Services
 - better understand their needs and refine pilot program.
 - Achieve agreement for pilot program and next steps.
 - Invite industry experts to participate and speak at WIE regional and local events.
 - Create a career mentoring program.
 - Career development workshops for technology & product development.
- Development of industry pool, industry portal, industry WIE membership, programs in industry venue, industry distinguished lectures(DLs).
 - Create an industry pool and portal of Information of Industries within the region (aligning to IEEE)
 - Increase WIE's online presence through Development of Industry pool, industry portal
 - \circ $\;$ Work out a corporate membership plan for IEEE WIE
 - Increase WIE Corporate membership
 - each one bring one program
 - #Companies4Diversity campaign
 - create WIE Cohorts
 - Create a resource pool of Distinguished Women Lecturers from Industry
 - Collaborate with Industries to conduct Programs in their venue/ organization
 - Create awards for Industry Partners and Experts
- Entrepreneurship training to encourage more women entrepreneurs and build a network of women entrepreneurs.
 - Work together with IEEE Entrepreneurship to grow a network of women entrepreneurs in IEEE. This group can serve for potential WIE members and a pool of speakers and mentors.
 - Promote a mentoring program related to entrepreneurship by working together with IEEE Entrepreneurship
 - Work together with IEEE Entrepreneurship to organize entrepreneurship and tech transfer related webinars, which will provide tools and resources to researchers, engineers and scientists resources to explore avenues to commercialize their ideas.
- Disseminating knowledge and skills of standards development and market adoption promotion by inviting standards experts.
- Create awareness about IEEE Standards within the WIE AGs
 - Educate WIE members with know-how for developing standards
 - Cultivate interests and participation in IEEE SA standards development
 - Collaborate with Industry for IEEE Standards development
 - Promote IEEE Standards for better market adoption

E. Membership Development & Retention

Chairs: Sunitha Beevi.K, Mahsa Bataghva Shahbaz

Goals and Action Plan

- Membership Development
 - New WIE Affinity Group Formation Collaborate with the Regional coordinators and society liaisons to identify the sections (Specially with lowincome and developing nations) that do not have WIE AGs
 - Promote member get a member program
- Membership Recruitment
 - Implement a variety of promotional strategies to reach all organizational Units (OU) across IEEE (throughout the year)
 - Promote IEEE Volunteer Platform (Aug-Dec)
 - Promote membership at ILSs, ILC & technical conferences (throughout the year)
 - Add Membership Development kit to promotional materials (electronically at the moment) (July)
- Membership Retention
 - Identifying dormant or less active WIE AGs (May-Aug)
 - Reaching out to non-renewing WIE members and promote WIE membership benefits – collaborate with V-tools committee (Sept-Dec)

F. Regional Activities

Chairs: Hala As'ad, Raisa Fabiha

Goals and Objectives

- Collaborative events in Regional flagship events
- Collaborative events with other WIE subcommittees and regional coordinators to arrange competitions in Regional level
- Regional WIE AG Chairs' meetups
- Facilitate the communication among region student branch AG chairs and help them sharing expertise

Action Plan

Goal	Action	Timeline
Collaborative events in Regional flagship events	 Request a list of AG chairs and their contact information Request information about regional flagship events and when support is needed 	Information request – May Continues support during the year
Collaborative events with other WIE subcommittees and regional coordinators to arrange competitions in Regional level	 Collaborate with WIE subcommittees and and regional coordinators to arrange competitions in Regional level. Ten competitions, i.e., one for each region. Topics/logistics to be discussed 	September (Tentative)

Goal	Action	Timeline	
Regional WIE AG Chairs' meetups	Host a virtual SpeedDialogue event with the support of regional coordinators This is an opportunity for AG chairs/members to network with each other and have informal conversation on selected topics WIE voting member and other special guest will be invited to share expertise Survey to the AG chairs to request information about the status of their AG (i.e., action plan, number of volunteers etc.), needed help etc.	Juty (Tentative)	
Facilitate the communication among region student branch AG chairs and help them sharing expertise	Host Nurturing Future Leaders event This is an opportunity for AG chairs to share their expertise with student branch AG chairs and learn from each other Each (or selected) AG chair/member will prepare 10 min presentation on selected area (e.g. industrial engagement, marketing best practices, etc.) Topics to be selected	Nov (Tentative)	

G. Technical Activities

Chairs: Ljiljana Trajkovic, Anastassia Gharib, Baek-Young Choi

Goals and Objectives

- Training for Society Liaisons to IEEE WIE
- Engagement with the existing events of IEEE Technical Societies/Councils
- Organizing collaborative events: technical conferences, workshops, seminars and distinguished lectures (DLs)
- Developing distinguished lecture (DLs) Programs for WIE

Action Plan

- Prepare and organize the training for Society Liaisons to IEEE WIE [July 2023].
- Holding bi-monthly meetings with IEEE WIE Society Liaisons, Subcommittee Chairs [June – Nov. 2023]:
 - Identifying common issues in IEEE WIE Society Liaisons operations and supporting them from IEEE WIE
 - Sharing best practices among Society Liaisons to IEEE WIE
 - Mentoring Society Liaisons to IEEE WIE by IEEE WIEC leaders
- Engagement of the Society Liaisons to IEEE WIE [May Oct. 2023]:
 - Engagement at existing technical conferences, workshops, seminars, distinguished lectures (DLs)
 - Organizing collaborative events: technical conferences, workshops, seminars
 - Developing WIE distinguished lecture Program available for WIE AGs
- Assessment of the Society Liaisons to IEEE WIE operation: Reporting the results/successful stories [May Oct. 2023]

In addition, the Chair confirmed the following Adhoc Committees for 2023:

Special Funding Ad Hoc: Bozenna Pasik-Duncan, Jyothi Ramaswamy, Lin Cai Travel Grants Ad Hoc: Anne Costolanski, Mini Ulanat, Ana Salazar Diversity and Inclusion: Mini Ulanat Climate Change and Sustainability: Katherine Rasley, Sneha Hegde History: Margaretha Eriksson WIE Philanthropic initiatives: Abigail C Teron, Morgan Kiani WIE Advancement: Sushmita Mitra WIE Partnerships: Norliza Noor WIE Mentorship: Dewi Liliana WePOWER Initiative: Bozenna Pasik-Duncan

8. WIEC Mentoring

HUMANS OF IEEE WIE





- Launched Humans of IEEE WIE —a new initiative in April WIE newsletter as a mentorship article and interview from WIE role models to focus on guidelines and motivation for membership Development, engagement and Retention
- Formed a WIE Mentorship Adhoc and identified Dewi Liliana as the lead
- Identified a Female Life member Maxine Cohen to initiate Collaboration with LM AG

9. WIE Events and Initiatives 2023

From January 1 through April 30, 924 WIE events were conducted and reported in <u>IEEE</u> <u>MGA vTools Events</u> by local WIE Affinity Groups and WIE Student Branch Affinity Groups. Flagship WIE events planned for 2023 include the following:

IEEE WIE Webinars

The Social Relevance of Technology - How Technology Shapes Society and How Society Shapes it.	Image: Sector	Voices Captured, Voices Lost More Source Source Sources More Source Source Source Source More Source Source Source Source Source Source More Source Source Source Source Source Source More Source Source Source Source Source Source Source Source More Source Sou
IEEE WIE initiated collaboration With IEEE REACH Overview: The IEEE REACH Program, managed by the IEEE History Center provides pre-university teachers with free open education resources (OER) that place engineering and technology in their societal and historical perspectives.Research has shown, when students understand the social relevance of science and technology, they are more likely to pursue STEM, especially female students! WATCH HERE	2023 Overview: Dr. Rabab K. Ward shared the goals of the Educational and Technical Activities Board as being the leaders in science and technology education and to be able to make a difference in the lifelong learning of girls in STEM, especially Engineering WATCH HERE	IEEE WIE celebrated Women's History Month 2023 Overview: #Women's contributions to #engineering, #science, and #technology are manifold. Despite their undeniable impact, the remarkable individuals behind many of these transformational innovations remain hidden from mainstream history. WATCH HERE



IEEE WIE International Women's day celebration

Q & A with 2023-'24 IEEE WIE Chair, Celia Shahnaz -Celia Shahnaz shared her take on diversity and inclusion, women empowerment, and what #EmbracingEquity means to her. She shares her plans for broadening the scope of support for women in the industry and her plans on encouraging and empowering women to take up more leadership positions. <u>WATCH HERE</u>

IEEE WIE Forum USA East

The <u>IEEE WIE Forum USA East</u> focuses on developing and improving leadership skills for individuals at all stages of their careers. The annual event alternates between IEEE Regions 1 and 2 to advance the WIE mission of promoting women engineers and scientist. The event will be held October 26-28, 2023 in Pittsburgh, PA.



IEEE WIE International Leadership Summits (ILS)



<u>IEEE WIE ILS</u> events provide regional opportunities to foster networking, mentorship, and collaboration. With the leadership and creativity of IEEE WIE volunteers, WIE Summits have been extremely successful and have made an outstanding impact on communities around the globe!

In 2023, there will be 9 ILS and they are located as follows:

Region 4 Michigan, USA | 3 November, 2023

Region 8

Kampala, Uganda | 16-17 June, 2023 Ifrane, Morocco | 15 November, 2023

Region 9

Asunción, Paraguay | 26-27 October, 2023

Region 10

Karachi, Pakistan | 2-3 August, 2023 Allahabad, India | 16-17 August, 2023 Raipur, India | 25-26 August, 2023 Visakhapatnam, India | 13-14 November, 2023 Auckland, New Zealand | 11-12 December, 2023

Engagement of IEEE WIE in Climate Change Assessment and Sustainability

1. During training webinar for 9 ILS organizers on 27^{th} April , guidelines about special events related to climate Change during ILS were provided, namely

- Technology based engagement activities (such as, Climate change assessment)
- Contest / Trivias, etc. (such as, Climate change related contest)
- "Ask the Specialist" sessions (such as, Climate change and sustainability related panels
- ILS at Uganda, 16-17 June agreed to organize a relevant panel

2. Collaboration with YP

The concept note is outlined and the following panels are planned Panel 1:

Topic: Promoting Diversity and Inclusion for Climate change and Sustainability, 28th June.



Panel 2:

Topic: Pioneering the Path to a Sustainable Future: Empowering Next-Generation Leaders in Climate Action, July 6^{th}

3. **Outreached to IEEE WIE forum USA East** (Oct 26-28, 2023) organizer during IEEE WIE annual meeting for Special Session/workshop on Climate Change

4. **Initiated Collaboration with IEEE Entrepreneurship Committee**: Climate change from investors/ startups perspective

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Engagement of IEEE WIE In Regional Meet Ups

Chair Celia Shahnaz attended Regional WIE AG Chairs' meetups, for example, R9 WIE AG Chairs meet up on 11th March at Panama City for capacity building and mentoring.



IEEE WIE's promotional Support/partnership (societies, committees, AGs)



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