

WFEO- Women in Engineering Committee Report ON

ACTIVITIES AND PROGRAMMES 2021/22

By
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Introduction

Mission &

Vision



The Women in Engineering (WIE) Committee is a standing Committee of the World Federation of Engineering Organisations (WFEO) who work collaboratively to empower, inspire, encourage, and share the achievements of women in engineering and technology around the world. We believe that equality, diversity and inclusion in the engineering and aligned sectors is crucial to creating a sector which can address the challenges that exists in the world. Global gender equality and women's empowerment is integral to the success of each of the 17 Sustainable Development Goals, and we aim to inform debate, and use the power of engineering and technology to achieve equality of opportunity for all.

- **MISSION**

- To seek ways to harness the collective power of our group, using technological skills, to achieve an engineering profession which attracts, retains, promotes, and welcomes the inputs of women and other under-represented groups, in order to achieve a sustainable world, that leaves no one behind.

- **VISION**

- To promote equality, diversity and inclusivity in the engineering workforce (with focus on women).

Committee Work Themes



- **Theme 1:** Engineering Workforce Capacity building- to increase diversity and inclusivity in the future skills pipeline.
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- **Theme 2:** Engineering Workforce Capacity building- to encourage female engineering retention and leadership.
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- **Theme 3:** Collection of Engineering Strategic Indicators.
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- **Theme 4:** Working in Partnership to address the Sustainable Development Goals, with a particular emphasis on Goal 5- Gender Equality, and its relationship to the other Goals in particular SDG13 and 17.
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Committee Leadership & Theme Leads:



Chair: **Engr Yetunde Holloway** FNSE- Nigeria

Deputy Chair: Dawn Bonfield- United Kingdom, UK

Admin. Staff: Tessy Gbayan-Nyiekaa- Nigeria

Theme Leads:

Theme 1: Engineering workforce Diversity
Lead **Wai Yie Leong (Malaysia)**

Theme 2: Female Leadership & Empowerment
Lead **Enyonam Kpekpena (Ghana);**
Co-lead **Alice Cunha da Silva (Brazil)**

Theme 3: Engineering Strategic Indicators
Lead **Jeanette Southwood (Canada)**
Co-lead **Micheline Wehbe (Lebanon)**
Co-lead **Ania Lopez (Italy)**

Theme 4: Working in Partnership to address the Sustainable Development Goals, with a particular emphasis on Goal 5- Gender Equality, and its relationship with the other Goals.

Lead **Dawn Bonfield (UK)**
Co-lead **Eveline de Kokx (Netherlands)**

Membership



MEMBERSHIP STATUS

The policy implementation committee (PIC) of Women in Engineering currently has a membership of 47 from 34 WFEO member countries and some international organizations. However, there are concerted and on going efforts to increase membership from WFEO member countries who do not have members in CWiE.

- 34 Voting Members
- 13 non-voting Members

Membership



World Engineering Day for Sustainable Development Statement 4 March 2022



THE WOMEN IN ENGINEERING COMMITTEE STATEMENT FOR WORLD ENGINEERING DAY 4TH MARCH, 2022

Build Back Wiser -Engineering the Future

The World Federation of Engineering Organizations (WFEO) boasts of a large and diverse community of engineers from over 100 countries across the globe including Asia Pacific, Africa, America and Europe. The Women in Engineering Committee (WIE) is a Policy Implementation Committee of WFEO.

In coming years, sustainability of engineering will depend on **Diversity, Equity, and Inclusivity (DEI)** and these three guide the activities of our committee and form the basis of our strategic goals and overarching themes.

From ideation and conception, procurement, creation and production, application and use of modern engineering and technology, DEI has become a vital factor for global progression. Our committee promotes and advocates DEI within the sector and aims to ensure that more and more females join and thrive in the workforce, and that their opinions and perspectives contribute to the future of engineering and technology, across all the Sustainable Development Goals such as industry, innovation and infrastructure development, climate change, health security, access to clean water and sanitation, sustainable cities, digital technology, and gender equality.

To **Build Back Wiser**, after the Covid pandemic and various climate disasters, the engineering and technology community needs to embrace all people, rich and poor, and including the most vulnerable, with diverse and inclusive innovations that are accessible to all.

Four main thematic goals, form the basis of our work and are shown below:



Strategic Theme Three: Collection of disaggregated strategic indicators -will be an area of major emphasis for the Committee in 2022.

The simple **GENDER SCORECARD**, (shown below) was initiated by **Engineers Canada**, and adopted by the Women Engineering Committee, for collection of gender disaggregated data. The scorecard can be used by countries to establish engineering data baselines for 2022, and to create targets and track and benchmark progress achieved in subsequent years. The scorecard allows for additional information depending on the country and engineering culture, categorization, registration, progression procedures etc.



Commitment to the Generation Equality Action Coalition on Technology and Innovation for Gender Equality

Gender Equality Scorecard for the Measurement of Gender Disaggregated Data For Professionally Registered Engineers

The Gender Equality Scorecard is a gender disaggregated data measurement tool which has been developed by Engineers Canada to track the progress in numbers of women in the engineering sector who are members of Professional Institutions on their journey to professional registration. The ambition is for engineering regulators globally to adopt a standardized method of measuring data, helping them to set appropriate goals to increase numbers of women in the engineering sector within their own country, and simultaneously promulgating a global benchmark through which longitudinal data can be collected and tracked. The Professional Institutions and Engineering Regulators are requested to report annually against a proposed matrix of eight or more measures, depending on applicability, starting with the next reporting cycle in 2022.

The gender disaggregated metrics listed on the scorecard are:

- Total percentage and number of licensed (professionally registered) engineers.
- Percentage and number of newly licensed engineers for that particular year.
- Percentage and number of Engineers in Training (ETs).
- Percentage and number of newly registered Engineers in Training (ETTs).
- Student members.
- Percentage and number of mentorship program participants (where an officially recognized institute scheme exists).
- Percentage and number of scholarship recipients (where an officially recognized institute scheme exists).
- Regulator council members.
- Any other regulator-specific metrics.

Regulators can use the scorecard to set their own yearly targets for each of these categories. If Regulators have other metrics they would like to track as part of the scorecard they can add their own Regulator-specific metrics, or replace some of the metrics above which are not applicable with their own metrics.

The purpose of this scorecard is to provide a tool for Regulators and professional engineering institutions to set and measure aspirational yearly targets, and for the data to be collected and used globally by the World Federation of Engineering Organizations-Women in Engineering Committee to monitor, track and report progress on a global level.

For further details, and to be involved in joining this initiative, please contact Tessy Ghayan on wfeo-wie@wfeo.net or Dawn Bonfield on dawnbonfield@btinternet.com

This progress towards global adoption of this Scorecard is part of the Commitment made by the World Federation of Engineering Organizations- Women in Engineering Committee to apply engineering to address the Sustainable Development Goals. The Commitment is made to the UN Women Generation Equality Action Coalition on Technology and Innovation for Gender Equality.

In conclusion, measurement of engineering disaggregated data is expected to raise awareness on the insufficiency (or otherwise) of diversity and inclusivity in engineering, particularly as it affects women and is further expected to hold engineering communities and organizations accountable on the female perspectives reflected in their work. Studies indicate that a more diverse workforce of females and other disadvantaged groups, which reflects a wider variety of experiences and views, can greatly benefit the profession and humanity as a whole.

WIE invite(s) our colleagues in the **World Federation of Engineering Organizations** and beyond, to join our call for the measuring and reporting of gender disaggregated statistics, and the adoption of the **Gender Equality Scorecard**, and to unite with us in creating a **global benchmark**, which will accelerate progress towards a more diverse and inclusive engineering sector worldwide.

Let's celebrate an inclusive World Engineering Day!

Yetunde Holloway
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yholloway@gmail.com

To sign-up, please contact: **Dawn Bonfield**
Deputy Chair
dawnbonfield@btinternet.com

Tessy Ghayan
Secretariat
yfea-wie@wfeo.net

INTERNATIONAL WOMEN'S DAY & WORLD ENGINEERING DAY CELEBRATIONS

World International Women's Day & World Engineering Day 2021



Friday 5 March
12:00pm - 1:00pm
GMT, Asia 10am

Monday 8 March
12:00pm - 1:00pm
GMT, Asia 10am

RISING TO THE TOP
GLOBAL WOMEN ENGINEERING LEADERS
SHARE THEIR JOURNEYS TO SUCCESS

Moderator: Marlene Kings, Executive Vice-President, WEDC

Speakers: Peggy Ooi-Joong, Director, Division Science Policy and Capacity Building, National Science Foundation (NSF); Hans Hofer, Executive Director, IFES and GEDC; Soma Chakrabarti, Co-Chair, co-sponsoring committee of Rising to the Top; Carleen Rowe-Chodil, President, Federation of African Engineering Organisations; Jan Hada, Founder, Women in Science and Engineering, Nepal

Moderator: Dawn Burfield, Deputy Chair of Committee for Women in Engineering, WEDC

Speakers: Gail Mattson, President, INWES; Randa Al Alawi, Council member, Bahrain Society of Engineers; Reine Enokhade, CEO and Founder, Teaching Computing; Arlenebelle Purves, Founder of Women in STEM, Mongolia, Chair of Asia Pacific, National Network, INWES

Register at: bit.ly/3p9Qk1Y
YouTube Livestream at: bit.ly/2HqGedl

Copies of the book: <http://www.iesm.net/iesm-to-the-top-volume-3/>

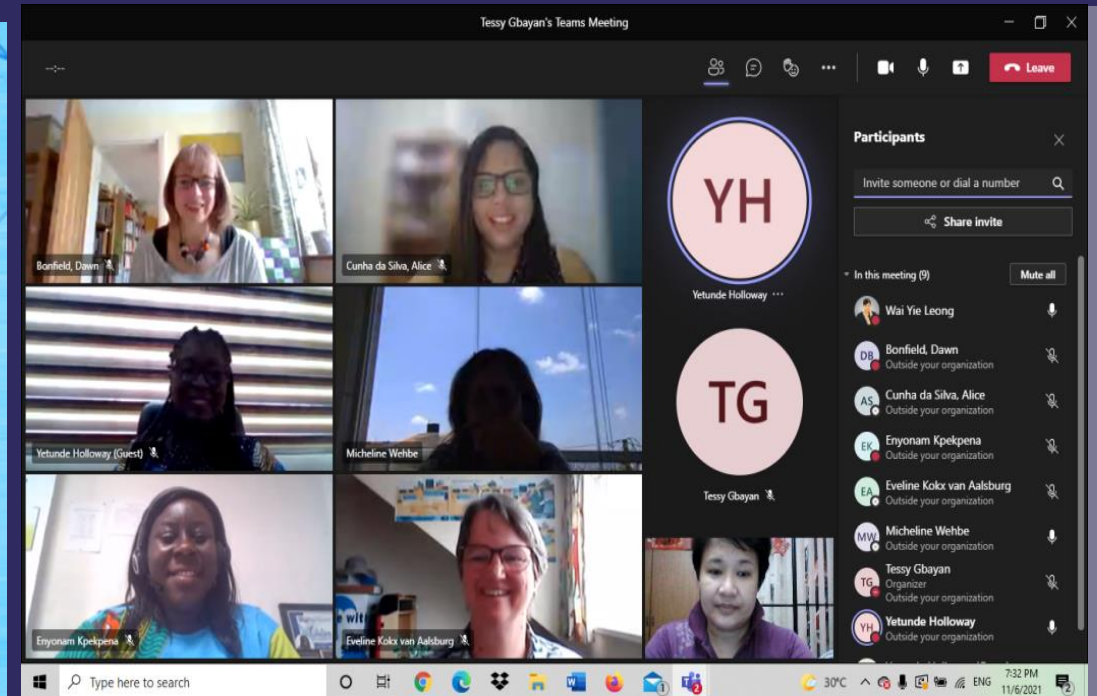
Register at: bit.ly/3rGUpUy
YouTube Livestream at: bit.ly/2HqGedl

Copies of the book: <http://www.iesm.net/iesm-to-the-top-volume-3/>

The Committee hence hosted 2 webinars on 5th and 8th March 2021 to commemorate both World Engineering Day 2021 and International Women's Day. The webinars featured several female engineering leaders from all over the world, who shared their compelling journeys in the field of Engineering. The webinars also presented an insight for young female engineers to chart their pathways to success.

- Watch First Webinar on: <https://www.youtube.com/watch?v=ghvVUMYdP5o>
- Watch Second Webinar on: <https://www.youtube.com/watch?v=ZImS25b2TBo>

International Women in Engineering Day INWED 24th June ,2021




On 24th June 2021, the World Federation of Engineering Organisations (WFE0)-Women in Engineering Committee (WIE) hosted a webinar to celebrate INWED. it was a Roundtable discussion and talk back sessions.

The webinar recording can be found here

<https://drive.google.com/file/d/1EPubc6aVvxsgGKY2wHME7NME7WPHTSA/view?usp=sharing>

Theme 1: Engineering Workforce Diversity and Capacity Building



Action	Expected Outcome
	<p>Action Coalitions are global, innovative, multi-stakeholder partnerships that mobilize international organizations to catalyze collective action, spark global and local conversations, drive investment, and deliver concrete and game changing results for women and girls.</p>
<p>THE EGALITE CHARTER COMMITMENT</p> <p>The EGALITE charter has been developed by the Women in Engineering Committee as part of their commitment to greater diversity, equity and inclusion in the engineering sector</p>	<p>To create a more diverse, equitable and inclusive engineering industry.</p>

UN Action Coalition on Technology & Innovation for Gender Equality



Action Coalitions are multi-stakeholder programmes coordinated by UN Women under the Generation Equality campaign to focus on delivering progress on six critical areas underpinning equality. There are six themes:

1. Gender-Based Violence
2. Economic justice and rights
3. Bodily autonomy and sexual and reproductive health and rights (SRHR)
4. Feminist action for climate justice
5. Technology and Innovation for Gender Equality
6. Feminist movements and leadership.

WFEO Women in Engineering Committee proposal involvement in theme 5.

The EGALITE Charter



World Federation of Engineering Organisations — A Charter for Equity, Diversity & Inclusion



A Commitment to Equity, Diversity & Inclusion

The members of the World Federation of Engineering Organisations pledge to commit to the following aims and actions to create a more diverse, equitable and inclusive engineering industry. Organisations that sign up to this pledge are committing to driving equity, diversity & inclusion within their sector and providing fair treatment of and opportunities for women and under-represented groups to succeed at the highest levels, and to ensure diversity at all levels across the industry.

The EGALITE Charter:

- **Equity.** We commit to ensuring that all members of our profession have equitable experiences and opportunities to succeed, are treated fairly and with respect, feel safe, and are free from harassment and discrimination.
- **Growth.** We commit to growing our diversity to ensure that we have representation in line with our regional population in all areas and at all levels, including in our governance, on committees, panels, and recruitment boards, and to create an inclusive culture where all employees are able to thrive and progress equally.
- **Accountability.** We will be accountable for progress, create a plan of action including measurable targets, and will publish our results.
- **Leadership.** We will visibly support these commitments at senior level, leading by example, and reflect these commitments in our actions, communications, publications, and reporting.
- **Indicators.** We will measure disaggregated data, comply with industry-wide initiatives to compile global data, and use this data to inform action.
- **Training.** We will put relevant training in place for our members and employees to reflect our commitment to Equity, Diversity and Inclusion.
- **Everywhere.** We will ensure that our EDI commitments are reflected in all parts of our organisation, and at every level, including in the engineering products, services and outputs that we produce.

This charter is part of the Commitment made by the World Federation of Engineering Organisations Women in Engineering Committee to apply engineering to address the Sustainable Development Goals. The Commitment is made to the UN Women Generation Equality Action Coalition on Technology and Innovation for Gender Equality. <https://commitments.generationequality.org/en/action-coalitions>

Theme 1 Contd.

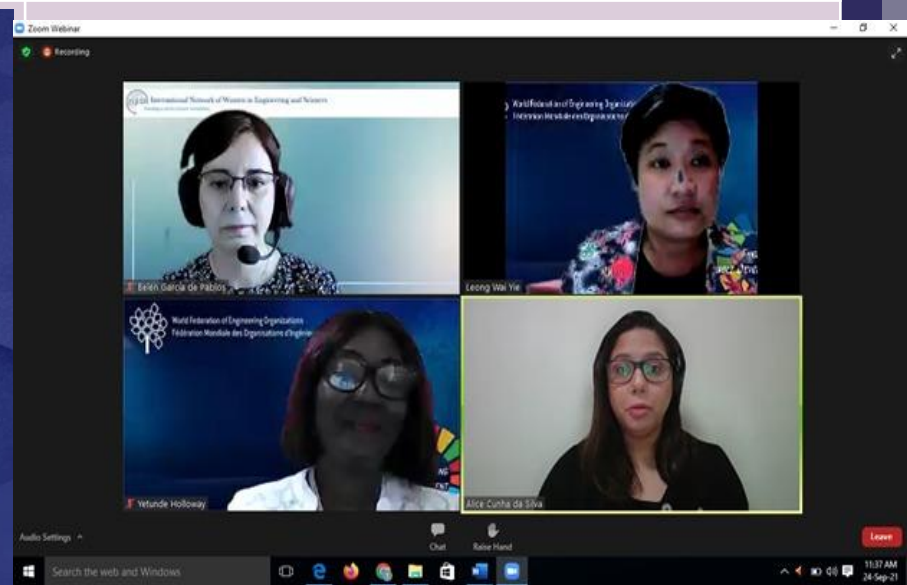


Action

The poster is for a webinar titled "THEME-1 SERIES: FEMALE RETENTION AND LEADERSHIP IN ENGINEERING". It is organized by the World Federation of Engineering Organizations (WFEO) and The Committee on Women in Engineering (COWE). The event is scheduled for Friday, 24th September 2021, at 11 AM WAT / 12 PM CEST. The topics are "NETWORKING: THE NEXT STEP IN YOUR CAREER" and "RETAINING FEMALE TECH TALENT: MAKING IT WORK". The speakers are YETUNDE HOLLOWAY, FUNMILOLA OJELADE, BELEN G. DE PABLOS, ALICE CUNHA DA SILVA, and LEONG WAI YIE. The poster also includes a registration link: bit.ly/3994ZZh. Logos for IET, APWEN, FAEO, and INWES are at the bottom.

The Committee hosted the first webinar on Women Leadership Series: "Engineering Workforce Capacity Building – to increase diversity and inclusivity in the future skills pipeline" on 24 September 2021.

Expected Outcome




the discussions served as a sharing forum to build up the skills and confidence for aspiring and practicing females in the technology space.

You can watch the recording on <https://www.youtube.com/watch?v=Gbmaok7bOzU>

Theme 2: Female Leadership and Empowerment



Action	Outcome
<p>The WIE Committee is organised the second webinar series on themed Female Retention and leadership in Engineering on 26th November, 2021</p> 	<p>Female engineers were exposed technical to attain leadership positions as well as retainment</p>

Theme 3: Female Strategic Indicators



1. GENDER EQUALITY SCORECARD FOR THE MEASUREMENT OF GENDER DISAGGREGATED DATA

The Women in Engineering Committee, as part of their 'Strategic Indicators' Action Theme have developed, in collaboration with Engineers Canada, a Gender Equality Scorecard which is being used to encourage Professional Engineering Institutions (PEIs) and engineering regulators to collect and report on metrics related to professionally registered women engineers in their institutions or licensed by their engineering regulators.

Theme 4:

Working in Partnership to address the Sustainable Development Goals, with a particular emphasis on Goal 5, Gender Equality, and its relationship to the other Goals.



Action

webinar on Intersectionality of Gender, Climate Change and Engineering. The webinar is in series, the first part of the webinar held virtually on 17th September, 2021 and the second part held on 15th October, 2021.

You can watch the first series recorded session on

<https://www.youtube.com/watch?v=pgb6sinAjKA>

The second series recorded session

here <https://www.youtube.com/watch?v=LjcJKgT1sBw>

Expected Outcome

Examine the nexus between Gender, Climate Change and Technology as well as Harness the strength of diversity and inclusion with the power of technology, to proffer solutions which will effectively tackle the climate emergency in a sustainable manner



WFEO - Women In Engineering Committee Represented At Cop26



On Monday 8th November the Women in Engineering Committee of WFEO were represented by the deputy chair, Dawn Bonfield in a panel session of the Green Zone of COP26 (the public zone), where they took part in the debate entitled [Using the SDGs to tackle the Climate Emergency: Here's how!](#)

The debate focused on the role of the SDGs in tackling the climate emergency, bringing in references to diversity and inclusion and managing a 'whole life' approach.

Collaborations



- On 20th March, 2021, the CWIE participated in a CSW65 event themed "Empowering Women in STEM is Essential for Achieving the UN SDGs" which was a joint presentation with international Science Council and International Network of Women in Engineering and Sciences webinar on Engineering in poverty Alleviation on March 6, 2021 in collaborations with WFEO-CEIT to celebrate World Engineering Day.
- **APEC WORKSHOP ON "ENERGY INTENSITY REDUCTION IN THE APEC REGIONS" URBANIZED CITIES**
- On 23rd March, 2021, the Chair, WIE was honoured to represent the WFEO-WIE Committee virtually at the APEC workshop on Energy Intensity Reduction in the APEC Regions "Urbanised Cities organised by CAST
- **ZAMBIAN WOMEN ENGINEERS CONFERENCE**
- On 15th April 2021. The WFEO-WIE Committee was also represented by me to give a keynote address at the Zambian Women Engineers Conference themed: "Women in Engineering: "Rising to cope with uncertainty in times of Covid-19." It was a huge success

Communications



- **6.o NEWSLETTER PUBLICATION**

- The Women in Engineering Committee has published 1 newsletter so far for this year. The first was published in May and the second will be published on 28th October, 2021. The newsletters have interesting contents from members which also show diversity of the Committee. View newsletters on <https://www.wfeo.org/committee-women-in-engineering/>

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- **7.o MEETINGS**

- The theme leads of Committee held virtual meetings to discuss programmes and activities that will take the committee forward as well as work towards the achievements of the Committee's goals.
- The Committee held about 6 different meetings between the period of January to October last year. The webinars reported under the different themes are the outcome those meetings.

Communications



6.o What's App Platform

The Women in Engineering Committee has a vibrant What's app platform which reflects our diversity

This is a live and lively informal chat, where we plan some of our events and share events from our countries and regions.

**Going Forward
2022 and beyond**



Members of the Women in Engineering committee are encouraged to have a joint and multiplying roles at WFEO by :

- ❖ Participating in other standing committees, to optimise visibility, ,facilitate partnerships as well as inclusion and diversity in WFEO
- ❖ Aspiring for leadership roles in other committees

Going Forward: CWiE Focus for 2022 and beyond



CWiE FOCUS FOR 2022

- March 4= World Engineering Day, March 8-International Women's Day- A physical event is planned
- Focus on SDG 5 and connection with all the SDGs
- Working towards the achievement of the EGALITE Charter Committee from members of WFEO
- Further the cause Gender Equality Scorecard for the measurement of Gender Disaggregated Data b various PEIs across the World. This will be used as a tool for advocacy towards greater and more equitable representation of females in engineering leadership
- Continue with 4 Themes
- Continue with planned webinars
- Work in partnership where we can – e.g. Benchmarking work with INWES
- Work to identify 'What Works' in terms of countries that do well with gender equality in engineering to identify best practice

Conclusion

- The Committee for Women in Engineering (CWIE) looks forward to more collaborations towards achievements of planned out programmes/goals for the year 2022 and beyond and are making plans for interesting and informative programmes for WED2022



End



Thank you