

WFEO-WIE STC NEWSLETTER



The Committee on
Women in Engineering

First Quarter – April, 2025

World Engineering Day



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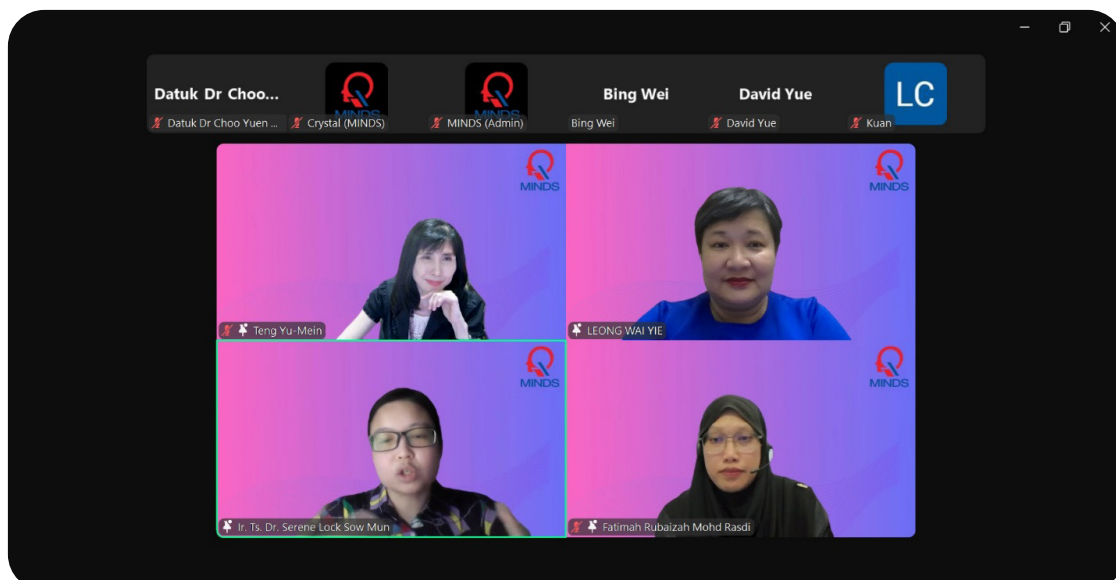
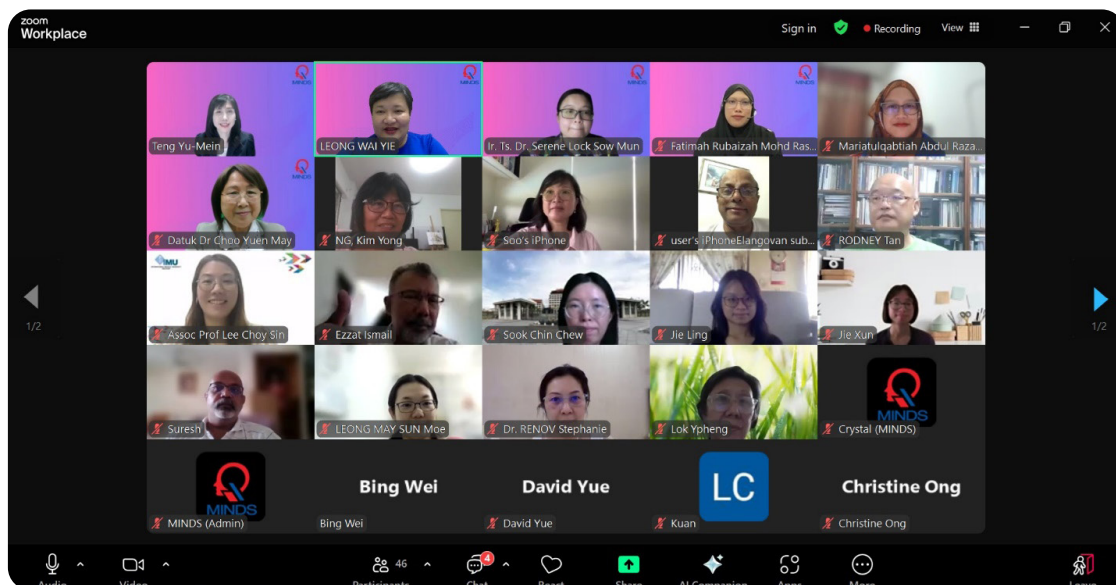
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6th National Conference on Contributions to National Development by Malaysian Women Scientists and Inventors 2025

Story by: Prof Wai Yie Leong – Vice Chair WIE-WFEO, Malaysia
| Region: Asia/Pacific | Email: waiyie@gmail.com

In conjunction with International Women's Day 2025, the 6th National Conference on Contributions to National Development by Malaysian Women Scientists and Inventors, was held online on 8 March 2025 from 9am to 12.50pm. This event continues to serve as a premier platform for knowledge-sharing and networking among academics, scientists, technologists, engineers, professionals, and students across different educational levels, including upper secondary, pre-university, undergraduate, and postgraduate studies.

The conference featured thought-provoking discussions by renowned women scientists and inventors on critical topics such as Cancer Research, Climate Change, Microplastic Pollution, Environmental Sustainability and Clean Energy, Malaysian Rubber Industry and Innovative Water Filtration. The conference recognized and celebrated excellence by presenting the Lifetime Scientific Research Achievement Award and the Young Woman Scientist Award, which honors exceptional contributions by Malaysian women scientists, including those under the age of 40.



Event Flier

6th National Conference on Contribution to National Development by Malaysian Women Scientists and Inventors 2025 - Webinar

8 March 2025

(UTC +8)9am - 12.50pm



CHAIRPERSON
CONFERENCE
ORGANIZING
COMMITTEE



YBHG. DATUK DR. CHOO YUEN MAY, FASC
Vice President, MINDS
MODULE 1 CHAIR



WELCOME ADDRESS
ACADEMICIAN EMERITUS PROF. TAN SRI
DATUK DR. AUGUSTINE S. H. ONG
PRESIDENT, MINDS

Conference Objectives:

- **Inspire Young Women:** We aim to inspire and encourage young women to explore and thrive in science, technology, and social sciences.
- **Celebrate Contributions:** Our goal is to share the amazing contributions of Malaysian women scientists with the public and highlight their achievements.
- **Honour Lifetime Achievements:** We will recognize a remarkable Malaysian woman scientist who has made significant contributions throughout her career with the Lifetime Scientific Research Achievement Award.
- **Support Young Innovators:** We aim to promote and celebrate the achievements of a talented young Malaysian woman scientist under 40 through the prestigious Young Woman Scientist Award.

Who should attend?

The conference welcomes a diverse audience, including academics, scientists, technologists, engineers, professionals, and students ranging from upper secondary and pre-university to undergraduates, and postgraduates.

Speakers:

Join us, as a team of outstanding women scientists and inventors discusses pivotal topics, including Cancer Research, Climate Change, Microplastic Pollution, Environmental Sustainability and Clean Energy, the Malaysian Rubber Industry and Innovative Water Filtration.

Keynote Address

Recipient: MINDS Outstanding Woman Scientist Lifetime Scientific Research Achievement Award



Datin Paduka Prof Dr. Teo Soo Hwang,
OBE, FASC
Universiti Malaysia
Founder of Malaysia Cancer Research Organisation



Prof Dr Joy Jacqueline Pereira,
FASC., FIGM, PGeol
SEADPRI-Universiti Kebangsaan Malaysia



Assoc Prof Dr Sarva Mangala Praveena
Universiti Putra Malaysia



IR. PROF. DR. LEONG WAI YIE
HONORARY SECRETARY,
MINDS
Module II Chair



Ir. Ts. Dr. Serene Lock Sow Mun
Universiti Teknologi PETRONAS (UTP)
Recipient : MINDS Young Woman Scientist Award



Dr Fatimah Rubaizah Mohd Rasdi
Malaysian Rubber Board



Madam Teng Yu-Mein
Efinity Social Enterprise



Registration Link:

<https://forms.gle/GfpCP2AmqhQbXUPw9>

Scan to Register

Registration Fees:
MINDS Members and Students: Free
Non-Members: RM 20
Deadline: 5 March 2025

For Enquires kindly contact:

Ms Crystal Ann Bastin

+60129032312

minds.secretariat@gmail.com

Supporting Partner:

IET The Institution of
Engineering and Technology

IET IR 4.0 TN
Malaysia

Thailand Inventors Day 2025

A total of 350 inventors from Malaysian Invention and Design Society (MINDS) received 37 Gold, 26 Silver, 10 Bronze, and IPITEX Big Prize, at the Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition 2025 (Â IPITEX 2025) from 2nd -6th February 2025, at the “Thailand Inventors’ Day 2025”. The Head of Delegation from Malaysia, Prof Dr Leong Wai Yie mentioned that international judges, visitors, and Pn Jayagowri Pindaya, Minister Counselor (Economic Affairs) from Embassy of Malaysia in Bangkok Thailand, attended the Exhibition and was impressed with Malaysian’s inventions.

On behalf of the Embassy of Malaysia in Bangkok, Thailand, Ms. Jayagowri extends her heartfelt congratulations to all Malaysian inventors and innovators participating in IPITEX 2025 and wishes them continued success in their future endeavors. Their contributions will undoubtedly play a vital role in shaping the future of science, technology, and innovation. IPITEX 2025 was hosted by National Research Agency (NRC), Thailand Ministry of Higher Education to promote and support.





Kartini Day in Indonesia

KULIAH UMUM
Fakultas Teknik Universitas Sriwijaya
”WOMAN IN ENGINEERING”
Bersama: **Ir Prof Dr. Leong Wai Yie**
(INTI International University, Malaysia)

Prof. Dr. Taufiq Marwa, S.E., M.Si
Rektor Universitas Sriwijaya

Fakultas Teknik
Kampus Palembang

Senin, 21 April 2025

Dr. Ir. Bhakti Yudho Suprpto, S.T., M.T., IPM
Dekan Fakultas Teknik

Fakultas Teknik Unsri
www.ft.unsri.ac.id

Kartini Day is an important moment in Indonesian history which is celebrated every April 21. In commemoration of the services of Raden Ajeng Kartini, a national hero who fought for women's emancipation in Indonesia in the 19th century, University Sriwijaya, Palembang, hosted a "Women in Engineering" Public Lecture. The keynote speaker, Ir Prof Dr Leong Wai Yie shared on the roles of Women in engineering, historically faced significant challenges, yet they have made profound contributions to technological and scientific advancements.

Despite representing nearly half of the global population, women remain underrepresented in many engineering disciplines due to persistent gender biases, societal stereotypes, and limited access to mentoring and leadership opportunities. However, the growing emphasis on gender diversity and inclusion has led to increased efforts to support and retain women in engineering education and careers. Initiatives such as STEM outreach programs, scholarships, gender equity policies, and inclusive workplace environments are helping to break barriers.

The presence of women in engineering has been shown to enhance innovation, improve team performance, and foster more user-centered design solutions. Role models continue to inspire future generations of female engineers. Nonetheless, achieving gender parity requires ongoing commitment from academia, industry, and government sectors to create equitable pathways for women to thrive. The lecture highlights the historical evolution, current status, and future direction of women in engineering, emphasizing the need for systemic change, intersectional approaches, and supportive ecosystems that empower women to lead and innovate in the engineering world.





Water and women(UN and WFEO partnership report), UK

Story by: Prof Dawn Bonfield | Region: Europe | Email: dawnbonfield@btinternet.com

WFEO has the status of “partner” of UN-Water and as such we have been asked by UN Water to contribute to the 2026 World Water Development Report (WWDR26) on the subject of Water and Women. Dawn Bonfield and Lylian Coelho from the Women in Engineering Committee are coordinating responses on behalf of WFEO, and have so far been involved in creating the Outline plan and detailed Table of Contents for the report. WFEO have agreed to contribute to four chapters, namely: Introduction: Context and Challenges; WASH and Human Settlements; Climate Change, Natural Hazards and Ecosystem Services; Information, education and capacity building; and Funding, Investment and Efficient Spending.

We believe that as WFEO our contribution should focus predominantly on areas related to engineering, and so we have proposing to provide inputs in the following aspects:

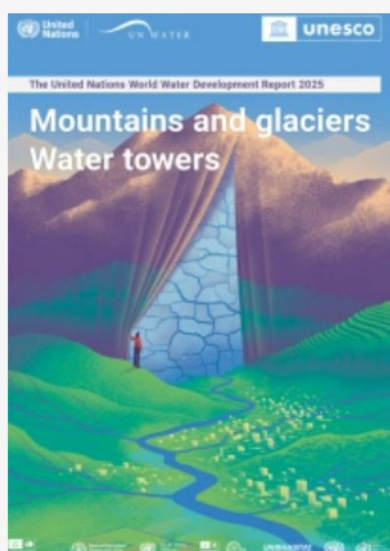
1. Identification of engineering and technology solutions that can have a positive impact on women (even if not necessarily directly targeted at women)

– for example, the water sanitation works that improved health outcomes, and the disproportionately positive impact that this had on women.

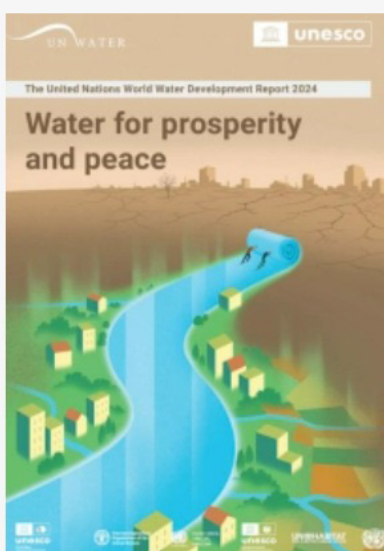
2. Identification of engineering and technology solutions that may have a negative knock-on effect on women – for example AI technology’s use of cooling water for data centers depleting the access that women have to water.

3. The lack of women in engineering and in particular water sectors (the numbers and some of the solutions that are being proposed to increase gender diversity), and the impact that this has on their absence from decision making in technology solutions.

Please get in touch if you have any relevant contributions such as, examples, case studies, data, or references.



UN World Water Development Report 2025



UN World Water Development Report 2024



UN World Water Development Report 2023

The Role of Mentorship in Engineering Workforce Capacity Building, Zambia

Story by: Eng Sharon Musonda | Region: Africa | Email: smusonda1175@gmail.com

Theme 1 –Engineering workforce Capacity Building to increase diversity and inclusivity in the future skills pipeline. Capacity Building can practically be impossible among women without role models. Hence mentorship among women engineering professionals in Zambia is critically important for several reasons. It not only supports individual growth but also contributes to broader gender equity and national development goals. Here are a few key points highlighting its importance:

1. Bridging the Gender Gap

Engineering remains a male-dominated field in Zambia and across the globe. Mentorship helps young women overcome societal stereotypes and systemic barriers by providing them with role models who have successfully navigated the same challenges.

2. Career Guidance and Skills Development

Mentors offer personalized guidance, helping mentees make informed career choices, set professional goals, and acquire relevant technical and soft skills. This is especially valuable in Zambia, where access to high-quality career counseling

and industry exposure can be limited.

3. Networking Opportunities

Mentorship programs can open doors to professional networks, industry events, internships, and job opportunities that may otherwise be inaccessible. This is particularly significant in Zambia, where employment opportunities in engineering can be competitive and based on professional networks.

4. Boosting Confidence and Retention

Many young women in engineering may face isolation or self-doubt. Mentors provide emotional support and encouragement, increasing retention rates and the likelihood that these professionals will stay and thrive in the field.

5. Promoting Leadership and Role Models

Mentorship helps prepare the next generation of women leaders in engineering. As more women rise to leadership positions, they serve as visible role models for others, fostering a sustainable cycle of mentorship and empowerment.



2025 World Engineering Day and WFEO Executive Council Meetings – Paris, France.

Story by: Ing Enyonam Kpekpena – Vice President/Chair WIE-WFEO | Email: efkpekpena@yahoo.com



The 2025 World Engineering Day for sustainable development and Executive Council Meetings of the World Federation of Engineering Organizations was held at UNESCO Headquarters, Paris, France from 4th to 6th March 2025. The theme for this year's celebration was Unleashing the Power of Engineers to advance the SDGs.

2025 World Engineering Day for sustainable development

Key members of the Women in Engineering Committee participated in the 2025 World Engineering Day for sustainable development, which focused on the following:

- The global significance of Engineering and the Power of International Collaboration in advancing the SDGs.
- Digital Transformation and Capacity Building in Africa
- Hackathon Awards Ceremony
- The Role of Innovative Engineering in shaping policies for a sustainable future.
- Inspiring Stories and Overcoming Challenges by Women in Engineering
- Powering Progress: Sustainable solutions for Energy and Infrastructure.
- Reflections on Insights and Achievements Gained

- Final Remarks on Global Significance of Engineering advancements, essential for driving sustainable development through innovation and collaboration.

The WFEO President, Engr. Mustapha Shehu acknowledged the vital role of engineers in advancing sustainable development. He highlighted the growing impact of young and female engineers and urged the global engineering community to tackle pressing challenges through innovation and collaboration.

Key moments included the announcement of the winners and recognition of young engineers in the UNESCO Hackathon, and a call for WFEO committees to initiate and report on impactful solutions within their fields. Engineers were encouraged to annually reflect on and celebrate progress made in addressing sustainability issues, reinforcing engineering's role in driving global development.

Very Notable amongst the 2025 WED events was the session dedicated to advancing diversity and inclusion in engineering. The chair of the Women in Engineering Committee, WFEO, Ing. Dr. Enyonam Kpekpena featured as a key speaker during a Fireside Chat on Breaking Barriers: inspiring stories and overcoming challenges which showcased women engineers who shared their journeys, challenges, and successes in overcoming gender-related obstacles in the profession involving the SDGs.

WFEO Executive Council and WIE Committee Meetings

During the WFEO Executive Council and WIE Committee meetings, WIE participants engaged with other committee chairs to better understand WFEO's strategic direction and how WIE initiatives align with it. Emphasis was placed on WIE's leading role in promoting gender mainstreaming across engineering sectors. The Women in Engineering Committee was tasked with supporting the collection of gender-disaggregated data to inform inclusive policy development and implementation.





Ghana Institution of Engineering

2025 World Engineering Day Activities

Story by: WIE Secretariat Host (WFEO/FAEO) | Region: Africa

On March 4, 2025, the Ghana Institution of Engineering (GhIE) celebrated World Engineering Day under the global theme “Unleashing the Power of Engineers to Advance the Sustainable Development Goals.” GhIE supported the event by providing financial assistance and 100 branded T-shirts each to Branches 1, 2, and 5. These branches engaged schoolchildren in various educational activities to promote engineering awareness at the grassroots level.

Internationally, Ing. Dr. Enyonam Kpekpena, Chair of the WFEO Women in Engineering Committee, and Ing. Naa Lamkai Quaye-Ballard represented Ghana at the UNESCO Headquarters in Paris. Dr. Kpekpena participated in a high-level panel discussion titled “Breaking Barriers: Inspiring Stories and Overcoming Challenges by Women in Engineering,” emphasizing the critical role of diversity and inclusion in driving global engineering progress.

World Engineering Day 2025 Schools Outreach (Branch 1, Ashanti Region)

On March 4, 2025, Branch 1 of the Ghana Institution of Engineering, in collaboration with Kumasi Technical University (KsTU), celebrated World Engineering Day under the theme “Engineering Solutions for a Sustainable World.” The event focused on promoting STEM education and engineering’s role in sustainable development.

Students and staff from KsTU, T.I Ahmadiyya SHS, Kumasi Technical Institute, and other institutions participated. Inspiring speeches were delivered by Prof. Osei Wusu-Achaw, Ing. Emmanuel Wireko-Brobby, and Ing. Mrs. Bennetta Koomson, encouraging students to pursue innovation and STEM careers. The Vice-Chancellor of KsTU, Prof. Gabriel Dwomoh, and Pro Vice-Chancellor, Ing. Prof. Mrs. Abena Obiri-Yeboah, emphasized the importance of engineering education.

As part of the outreach, Arduino kits were donated to science clubs at Jachie Pramso SHS and Yaa Asantewaa SHS to promote creativity and practical learning. The event successfully inspired the next generation of engineers and reinforced the impact of engineering in building a sustainable future.



World Engineering Day Celebrations at REGIONAL CENTRE FOR ENERGY AND ENVIRONMENTAL SUSTAINABILITY (RCEES)-University of Energy and Natural Resources (UENR), Sunyani

Branch 2 celebrated the 2025 World Engineering Day on the 4th March 2025 at the Regional Centre for Energy and Environmental Sustainability (RCEES) auditorium, University of Energy and Natural Resources (UENR), Sunyani. The theme for the celebration was Shaping our Sustainable Future through Engineering and the chairman was the Vice-Chancellor of University of Energy and Natural Resources, Prof. Elvis Asare-Bediako. The Guest Speaker was Ing. Prof. Eric Ofori-Antwi, the Director of Regional Centre for Energy and Environmental Sustainability (RCEES) and immediate past Chair of Branch 2. About One Hundred and Fifty (150) pupils were drawn from the following schools: Holy Spirit School, UENR Basic School, Peprah Agyemang Capital School and Glory Kinder Care School all in Sunyani.





Ghana Institution of Engineering (GhIE)-University of Energy and Natural Resources (UENR) Students Chapter

GhIE-UENR Students Chapter as part of this year's World Engineering Day embarked on an outreach to some selected Senior High Schools. The schools were St' Mary's JHS, Odumase, Odumase SHS and Twene Amanfo SHS all in the Eastern Region, Ghana.

World Engineering Day

Branch 4 celebrated the World Engineering Day on March 4, 2025 with students of the Ghana Communication Technology University (GCTU) Engineering Students Association in collaboration with the Faculty of Engineering at the GCTU auditorium. The Special Guest Speaker was Prof. George Wiafe and the Guest Speaker was Ing Kofi Owusu Adusei. The event generated excitement amongst the students.

Presentations were received from the Chair on “Tech-Driven Business Opportunities for Sustainable Development”. One of Executive members, Ing Louis Osei did a presentation in the following areas:

- Retrofitting ICE Vehicles to EV
- AI Assisted Engineering Designs
- AI assisted Data Analytics
- Teaching AI

Event Flier



The flier features a light blue background with a stylized world map in the center. The title 'WORLD ENGINEERING DAY 2025' is prominently displayed in large, bold, blue letters. Above the title, the Ghana Communication Technology University (GCTU) logo and the text 'GHANA COMMUNICATION TECHNOLOGY UNIVERSITY ENGINEERING STUDENTS ASSOCIATION IN COLLABORATION WITH FACULTY OF ENGINEERING' are shown. Below the title, a yellow banner with the text 'THEME: TECH-DRIVEN ENGINEERING INNOVATIONS FOR SUSTAINABLE DEVELOPMENT' is displayed. Three speakers are featured in individual portraits: Prof. George Wiafe (Special Guest Speaker, Founder of Edenway Foundation), Ing. Kofi Owusu-Adusei (Guest Speaker, Soko Aerial Robotics), and Ing. Michael Codjoe (Guest Speaker, Branch 4 Chairman, GhIE). The event date 'TUE. 4TH MAR, 2025' and time '9:00 AM' are shown, along with the location 'FLORENCE ONNY AUDITORIUM GCTU'. The bottom of the flier includes logos for GhIE, KASAPREKO COMPANY LIMITED, EDENWAY FOUNDATION, and social media icons for Facebook, Twitter, YouTube, and Instagram, with the handle 'ESA_GCTU'.

**GHANA COMMUNICATION TECHNOLOGY UNIVERSITY
ENGINEERING STUDENTS ASSOCIATION IN
COLLABORATION WITH FACULTY OF ENGINEERING**

WORLD ENGINEERING DAY 2025

**THEME: TECH-DRIVEN ENGINEERING INNOVATIONS
FOR SUSTAINABLE DEVELOPMENT**

Special Guest Speaker
Prof. George Wiafe
Founder of Edenway Foundation

Guest Speaker
Ing. Kofi Owusu-Adusei
Soko Aerial Robotics

Guest Speaker
Ing. Michael Codjoe
Branch 4 Chairman, GhIE

**TUE. 4TH
MAR, 2025**

9:00 AM

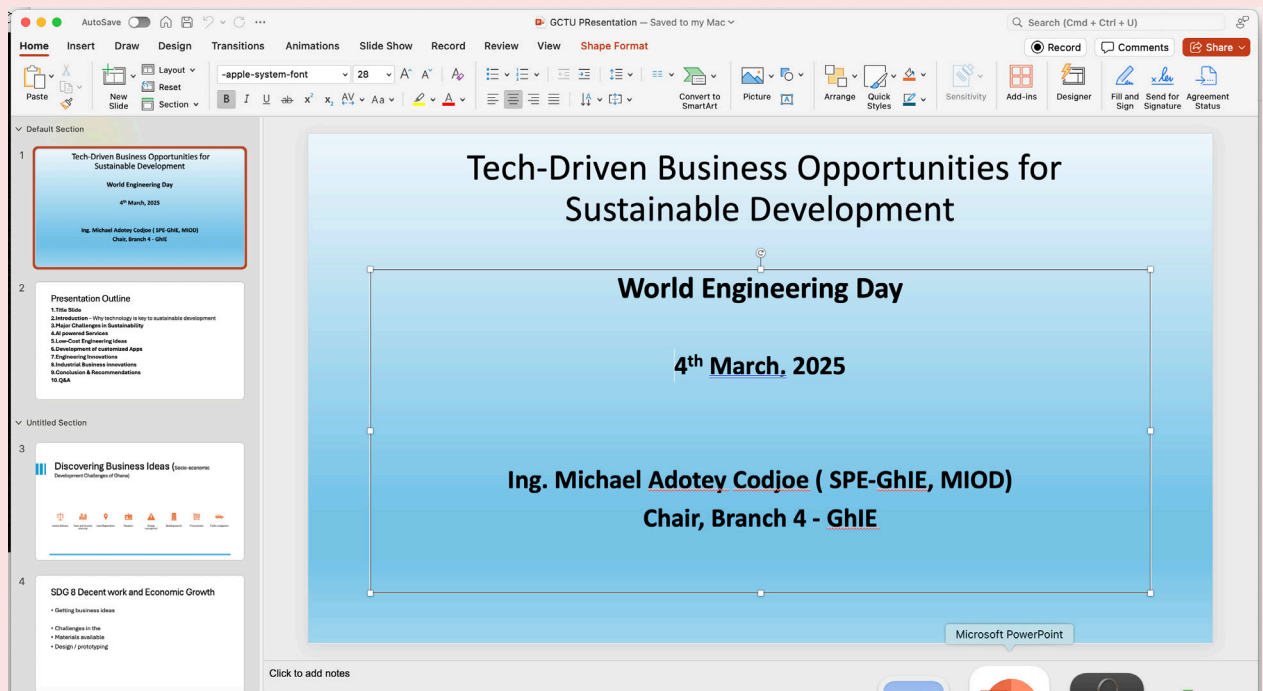
**FLORENCE ONNY
AUDITORIUM**
GCTU

GhIE
GHANA INSTITUTION OF ENGINEERING

KASAPREKO
COMPANY LIMITED

EDENWAY
FOUNDATION

ESA_GCTU



Message from the Chair, Women in Engineering Committee



World Federation of Engineering Organizations (WFEO)

Dear Colleagues and Partners,

As we begin a promising new year, I am pleased to share highlights from an inspiring and impactful first quarter for the Women in Engineering (WIE) Committee, WFEO.

Our active participation in the 2025 World Engineering Day celebrations at UNESCO Headquarters in Paris in March 2025 reaffirmed the essential role women engineers play in achieving the Sustainable Development Goals. I was honored to contribute to the Fireside Chat on “Breaking Barriers: Inspiring Stories and Overcoming Challenges by Women in Engineering,” where we spotlighted courageous narratives of resilience, innovation, and leadership.

The quarter also marked the continuation of our strategic initiative to standardize data collection on women engineers across countries. This endeavour is vital to promoting evidence-based advocacy and informing policies for gender equality in engineering. Our upcoming white paper, titled “Harmonizing Data Collection on Women Engineers: A Proposal for Standardized Metrics and Methodologies,” will outline the efforts made by stakeholders in this regard, present various ways in which gender data is collected by various WFEO member countries and recommend a methodology and framework to facilitate the collection of Engineering Statistics Indicators. Ultimately, this collective vision will clarify, identify existing gaps, and offer actionable recommendations to address them.

In collaboration with UN-Water Committee, the WIE committee is contributing to the 2026 World Water Development Report, focusing on the intersection of water and gender. We are ensuring that engineering solutions and the perspectives of women engineers are well represented in global discourse.

At the regional level, we celebrate the exemplary initiatives from Asia, Africa, and beyond—including mentorship programs in Zambia, STEM outreach activities in Ghana, and outstanding recognitions for Malaysian women scientists and inventors. These initiatives echo our shared commitment to capacity building, visibility, and leadership development for women in the profession.

As we move forward, we remain guided by our strategic pillars: **Capacity Building and Knowledge Sharing, Female Engineering Leadership and Retention, Data Advocacy with Policy Engagement, and achieving the SDGs with particular emphasis on SDG5.** Let us continue to amplify the voices of women engineers, invest in the next generation, and champion a more inclusive and equitable engineering future.

Warm regards,

Ing. Dr. Enyonam Kpekpena

Chair, Women in Engineering Committee

World Federation of Engineering Organizations (WFEO)



The Committee on
Women in Engineering