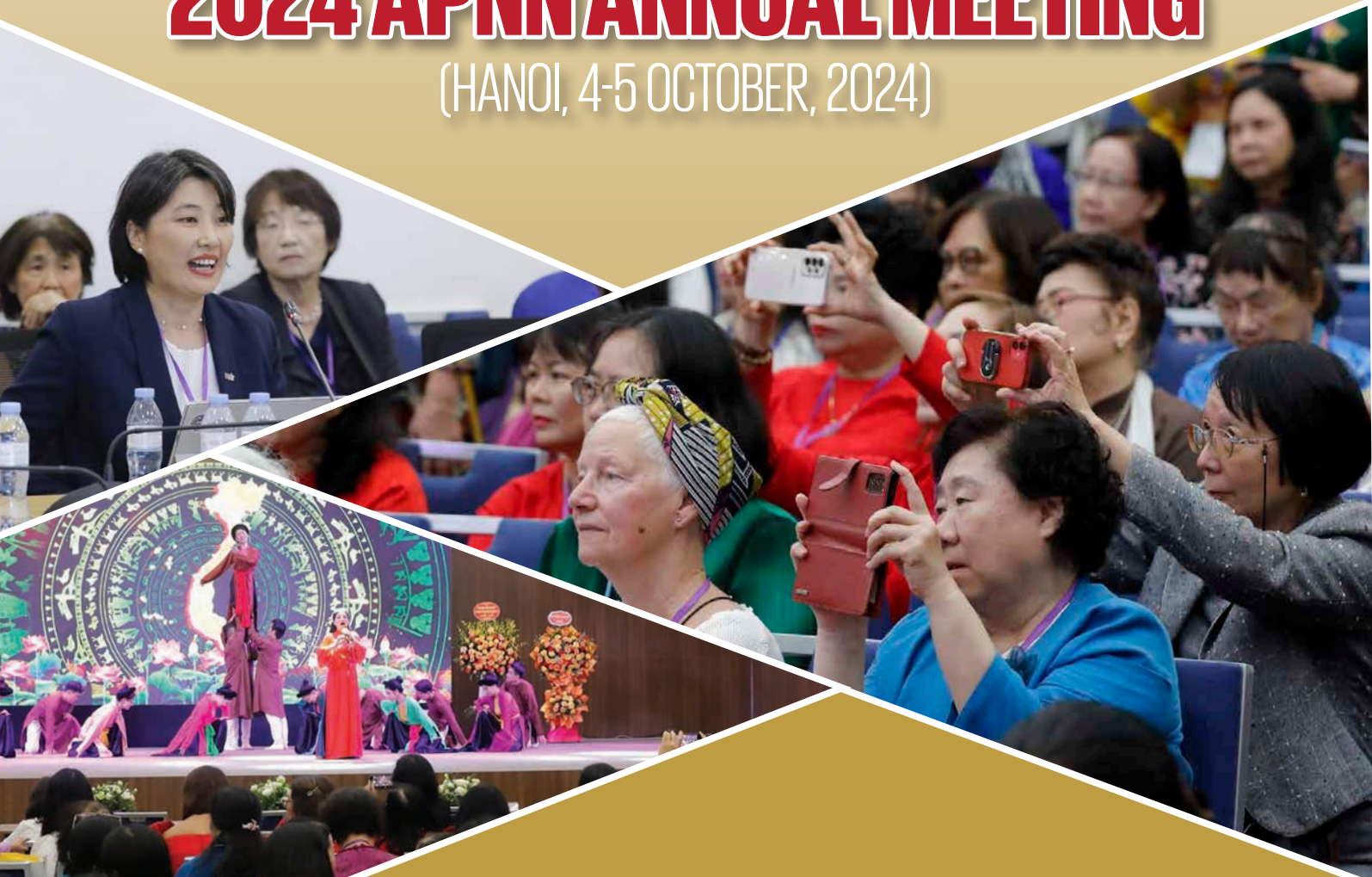




PROCEEDING OF 2024 APNN ANNUAL MEETING

(HANOI, 4-5 OCTOBER, 2024)



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INWES-APNN 2024 CONFERENCE/MEETING

(Hanoi, 4-5 October 2024)

FINAL REPORT

On October 4th and 5th, 2024, at the National Innovation Center (NIC), the Viet Nam Association for Intellectual Women (VAFIW), in coordination with the Viet Nam Women's Union, successfully organized the 2024 INWES APNN Conference and Annual Meeting with the theme "The Role of Women in Science & Technology and International Integration for Sustainable Development". The Conference has focused on assessing the achievements as well as the challenges that women engineers and scientists in the Asia-Pacific region are facing, exploring ways in which women are working to promote sustainable development as well as climate change adaptation in their communities. It also made recommendations to enhancing its contribution to the sustainable development in the region and the world.

Participating in the Conference were more than 300 participants including 58 international delegates from 11 countries/territories, i.e. India, Japan, Korea, Malaysia, Mongolia, Myanmar, Nepal, Philippines, Sri Lanka, Taiwan and United Kingdom. Vietnamese participants are VAFIW's members coming from various cities and provinces i.e. Ho Chi Minh City, Hue, Dong Nai, Dak Lak, Binh Dinh, Khanh Hoa, Hai Phong and Ha Noi.

Opening Plenary Session, 4th October 2024

The Opening Plenary Session was held with the attendance of representatives from different ministries, government agencies and institutes, universities and research centers. Prof. Dr. Le Thi Hop, VAFIW President officially opened the 2024 INWES-APNN Conference/Meeting. She expressed her warm welcome to all delegates, who had travelled from far away to attend this important event. She reported briefly the results which VAFIW has done for supporting women scientists and engineers in scientific research, technology transfer, commercialization of their research

products, IP training, networking between scientists and businesses

On behalf of the Vietnam Women Union (VWU), Mrs. Ha Thi Nga, VWU President highlighted the theme of the Conference as well as the topic of the two panel "Gender and STEM" and "Health and the Environment", which are the issues not only directly impact the development of each country but also affect the future of the entire region and the globe. She expressed her concern about the challenges we are facing relating to resource depletion, environmental pollution and climate change, which directly affect human health. She expected the Conference would be an opportunity for female scientists and engineers from all countries to connect, share experiences and cooperate to create breakthrough initiatives to promote gender equality and empower women.

On behalf of the National Assembly of Viet Nam, Mrs. Nguyen Thi Thanh, Vice-Chairwomen emphasized the Party and State of Vietnam always pay special attention to science and technology and innovation, considering this as one of the leading national policies for rapid and sustainable development. She highly commend the cooperation among Vietnamese female scientists and engineers and its partners in the network of INWES APNN.

In her speech, Dr. Sarah Peers, INWES President appreciated APNN as an excellent example of what INWES members can do. She emphasized "Diversity is so important to innovation, but unity takes us further. Let us engage in dynamic discussions, share our expertise, and build partnerships that transcend boundaries, that tackle difficult problems and support sustainable development ". "Each country, each culture, each women has so much to offer, but together we can do so much more".



As APNN Chair, Dr. Juana Tapel fully supported the 2024 INWES-APNN Conference and Meeting and believed "the Conference/Meeting serve as the venue to enhance our insights, network with women of similar cause, and learn about the trends and latest development towards a better world". She expressed her sincere thanks to VAFIW for hosting the event and called for the active participation from conference delegates.

Thematic Panel Meetings, 4th October 2024

With the theme "the Role of Women in Science & Technology and International Integration for Sustainable Development", the 2024 INWES-APNN selected two panel topics: (1) Gender and STEM; (2) Health and Environment. The topics have attracted great attention of APNN members. The Organizing Committee received 73 reports, among them 20 from international participants. 53 out of 73 reports were chosen to be published in the conference proceedings which compose of 378 pages. At the two panels, 21 reports were presented.

2024 APNN Annual Meeting, 5th October 2024

In the opening session of APNN Annual Meeting, Prof. Dr. Nguyen Thi Doan, former Vice-President

of Viet Nam, President of Vietnam Association for Promoting Education, Honorary President of VAFIW expressed her warmest greetings and congratulations to all delegates attending the 2024 APNN annual meeting. She noted the Conference is an important bridge for Vietnamese female scientists and engineers to exchange and learn from international colleagues, promoting research cooperation, technology transfer and enhancing the competence and competitiveness of Vietnamese female intellectuals. She hoped the solidarity and cooperation in scientific research among women scientists in the region and the world over will grow more and more.

After the welcoming speech by Prof. Dr. Nguyen Thi Doan, Prof. Dr. Le Thi Hop, VAFIW President and Dr. Juana T. Tapael, APNN Chair co-chaired the meeting. 11 country reports were presented by representatives from OSVSWA-Women in STEM (Indonesia), JNWES (Japan), KWSE (Korea), IEM WE (Malaysia), WSTEM (Mongolia), MES-WE (Myanmar), WISE-Nepal, PTC WEN (Philippines), WISE-Sri Lanka, TWIST (Taiwan) and VAFIW (Viet Nam).

The 2024 INWES-APNN Conference/Meeting were ended with the endorsement of the Hanoi Recommendation by APNN Representatives and the transfer of 2025 APNN hosting to KWSE.

Exhibition on Arts and Women's Scientific and Innovative Products

More than 200 research results and S & T products of 35 female scientists were elected by COSTAS to display at the Exhibition. They all meet criteria for IP, awards, applicability, import substitution ability and creativity. The Exhibition is not only an opportunity to honor the intelligence and creativity of women, but also a source of inspiration to promote stronger participation of women in science and technology, contributing to building a sustainable future for the country. The Exhibition were inaugurated with the ribbon – cutting ceremony by 4 guest of honor, i.e. Dr. Nguyen Quan, former Minister of Science and Technology, President of Vietnam Automation Association, Ass.Prof. Nguyen Thi Xuyen, President of Vietnam Medical Association, Ass.Prof. Tran Tuan Anh, Vice-President of the Vietnam Academy of Sciences, Dr. Jonathan Baker, UNESCO Representative in Viet Nam.

Besides, 10 fabric-cutting artworks by Artist Tran Thanh Thuc and another 10 paintings by Artist Trang Thanh Hien and Artist Bui An Ninh were exhibited at the conference hall.

Other side events

The gala dinner with excellent performances from APNN members i.e. Japan, Mongolia, Philippines.

The visit of Viet Nam Space Discovery Center

Meeting with Prime Minister of Viet Nam

About 90 representatives of APNN members and some eminent scientists and engineers were invited to meet with Prime Minister of Viet Nam, H.E. Pham Minh Chinh.

At the meeting with APNN representatives, Prime Minister Pham Minh Chinh emphasized that the Vietnamese Government highly values and strongly promotes international cooperation in research, transfer and application of modern technology for national development. The Vietnamese Government creates all favorable conditions for intellectuals, including female

intellectuals, to maximize their capacity and enthusiasm, and creates favorable conditions for female intellectuals and female scientists to participate in start-up and innovation activities. The Prime Minister also expressed his wish to "achieve more and more practical and meaningful achievements of the international and regional networks of scientists and engineers in general, and of the Vietnam Association of Intellectual Women in particular, making increasingly greater contributions to the development of the country and the construction of the Asia-Pacific region, as well as to a world of peace, justice, humanity, compassion, civilization and sustainable development". Regarding the proposal of the Vietnam Association of Intellectual Women on "Establishing a Fund to support young female scientists in scientific research and startups", Prime Minister Pham Minh Chinh assigned the President of the Vietnam Women's Union to coordinate with the Minister of Finance to study the establishment in accordance with the provisions of law.

The 2024 INWES-APNN Conference and Meeting was an important event which attracted the attention of many Vietnamese leaders, intellectuals, scientists, engineers and mass media.

2024 INWES APNN CONFERENCE/ MEETING was covered by following links

<https://phunuvietnam.vn/khai-mac-hoi-nghi-mang-luoi-cac-nha-khoa-hoc-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-2024-20241003225832988.html>

<https://phunuvietnam.vn/gan-300-dai-bieu-tham-du-hoi-nghi-mang-luoi-cac-nha-khoa-hoc-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-2024-20241004090539449.htm>

<https://baotainguyenmoitruong.vn/phat-huy-vai-tro-nu-tri-thuc-huong-toi-phat-trien-ben-vung-381149.html>

<https://phunumoi.net.vn/khai-mac-hoi-nghi-mang-luoi-cac-nha-khoa-hoc-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-inwes-apnn-2024-d321289.html>

<https://phunumoi.net.vn/khai-mac-hoi-nghi-mang-luoi-cac-nha-khoa-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-inwes-apnn-2024-i321302.html>

<https://baochinhphu.vn/thu-tuong-tiep-cac-nha-khoa-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-102241004123408744.html>

<https://vnanet.vn/vi/anh/anh-thoi-su-trong-nuoc-1014/thu-tuong-gap-cac-nha-khoa-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-nam-2024-7632934.html>

<https://vnanet.vn/vi/anh/anh-thoi-su-trong-nuoc-1014/hoi-nghi-mang-luoi-cac-nha-khoa-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-2024-7632655.html>

<https://nhandan.vn/thu-tuong-pham-minh-chinh-gap-mat-cac-nha-khoa-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-post834816.html>

<https://baophunuthudo.vn/thoi-su/phu-nu-duoc-trao-quyen-va-dong-gop-het-minh-vao-su-phat-trien-cua-cong-dong-135382.html>

<https://hanoimoi.vn/doi-ngu-nha-khoa-hoc-va-ky-su-nu-ngay-cang-khang-dinh-tai-nang-tri-tue-680272.html>

<https://vnanet.vn/vi/anh/anh-thoi-su-trong-nuoc-1014/thu-tuong-gap-cac-nha-khoa-hoc-va-ky-su-nu-khu-vuc-chau-a-thai-binh-duong-nam-2024-7632934.html>

<https://nhandan.vn/thuc-day-vai-tro-cua-phu-nu-trong-khoa-hoc-cong-nghe-va-hoi-nhap-quoc-te-post834822.html>

<https://baophunuthudo.vn/thoi-su/phu-nu-duoc-trao-quyen-va-dong-gop-het-minh-vao-su-phat-trien-cua-cong-dong-135382.html>

<https://dansinh.dantri.com.vn/dien-dan-dan-sinh/nhieu-phu-nu-viet-thuoc-top-nhung-nha-khoa-hoc-co-anh-huong-toan-cau-20241004151436097.html>

<https://baotintuc.vn/xa-hoi/co-hoi-but-pha-cua-cac-nha-khoa-hoc-nu-khu-vuc-chau-a-thai-binh-duong-20241004155618599.html>

<https://phunuvietnam.vn/no-luc-thuc-day-binh-dang-gioi-trong-linh-vuc-khoa-hoc-cong-nghe-20241004155624702.html>

<https://kinhtedothi.vn/ha-noi-to-chuc-hoi-nghi-thu-hut-nu-tri-thuc-tu-13-quoc-gia.html>

<https://en.nhandan.vn/prime-minister-meets-female-scientists-engineers-from-asia-pacific-post139920.html>

<https://en.nhandan.vn/womens-role-promoted-in-science-technology-and-integration-post139915.html>

<https://phunuvietnam.vn/11-tham-luan-cua-cac-nha-khoa-hoc-nu-tai-hoi-thao-suc-khoe-va-moi-truong-20241004161506291.html>

<https://baophunuthudo.vn/thoi-su/hap-dan-trien-lam-san-pham-cua-cac-nha-khoa-hoc-ky-su-nu-135406.html>

<https://kinhtedothi.vn/thu-tuong-tao-moi-dieu-kien-de-nu-tri-thuc-phat-huy-nang-luc-tam-huyet.html>

<https://baophunuthudo.vn/tieu-diem/viet-nam-tao-moi-dieu-kien-thuan-loi-de-doi-ngu-tri-thuc-phat-huy-toi-da-nang-luc-135405.html>

<https://vtv.vn/video/thoi-su-12h-vtv1-04-10-2024-699023.html>

<https://quochoitv.vn/phat-huy-vai-tro-nu-tri-thuc-trong-khoa-hoc-cong-nghe-238451.html>

<https://phunuvietnam.vn/thuc-day-hon-nua-nhung-dong-gop-cua-cac-nha-khoa-hoc-nu-cho-su-phat-trien-ben-vung-20241004124619169.html>

<https://phunuvietnam.vn/chiem-nguong-nhung-tac-pham-hoi-hoa-doc-dao-cua-cac-nu-tri-thuc-20241005023220974.html>

<https://vietnam.vnanet.vn/vietnamese/long-form/inwes-apnn-2024-nu-tri-thuc-chung-tay-vi-su-phat-trien-ben-vung-379639.html>

I. OPENING SESSION, 4TH OCT 2024

OPENING SPEECH BY VAFIW'S PRESIDENT **INTERNATIONAL NETWORK ON WOMEN ENGINEERS AND SCIENTISTS ASIA-PACIFIC REGION (INWES-APNN)**

Hanoi, 4-5 October 2024

Good morning

Your Excellency, Madam Nguyen Thi Thanh,
Member of the Party Central Committee, Vice
President of the Parliament of the Socialist
Republic of Vietnam.

Distinguished guests, Ladies and Gentlemen,

It is my privilege to address here, on behalf of
the Vietnam Association for Intellectual Women
(VAFIW), our warm greetings and great gratitude
to Your Excellency, Madam Nguyen Thi Thanh,
Member of the Party Central Committee, Vice
President of the Parliament of the Socialist
Republic of Vietnam for coming and delivering
Keynote Speech at the Conference.

My pleasure to express our highest appreciation
to Your Excellency, Professor, Dr. Nguyen Thi
Doan, former member of the Party Central
Committee, former Vice President of the Socialist
Republic of Vietnam, and Honorable President of
the VAFIW, for attending the Conference.

My privilege to emphasize our deep thanks to
Madam Ha Thi Nga, Member of the Party Central
Committee, President of the Vietnam Women's
Union, for coming and giving Speech at the
Conference.

I wish to put on record our warm welcome
and thanks to Dr. Sarah M. T. Peers, President
of INWES, Dr. Juana Tapel APNN Chair and Mr.
Baker the Head of UNESCO of Hanoi Office for

attending and delivering the guideline remarks to
the Conference.

I should take this occasion to thank all
distinguished guests, representatives from the
Party, the State, the Government of Vietnam,
the Vietnam Fatherland Front, the Vietnam
Women's Union, the Vietnam Union of Science
and Technology Associations, the International
Organizations, and all representatives from
departments, branches, universities, academies,
research institutes and associations for
attending the Conference: This is really a very
good encouragement for our association.

I welcome and also thank you all, the presence
of the 60 international delegates from 11
countries and territories (Australia, Bangladesh,
India, Japan, Korea, Malaysia, Mongolia, Nepal,
the Philippines, Sri Lanka, Taiwan - China and
the United Kingdom), and the taking part of
300 Vietnamese participants, all are female
intellectual members, engineers, scientists, and
reporters from 8 member associations and 35
branches of the VAFIW, and from 6 provinces and
cities far from Hanoi, such as Ho Chi Minh City,
Dong Nai, Binh Dinh, Thua Thien Hue, Dak Lak,
Thai Nguyen and Hai Phong.

Especially, the Conference warmly welcomes
the presence of the two Labor Heroes in the
Renovation Period: Prof. Doctor Huynh Thi
Phuong Lien and Associate Professor Dr. Nguyen
Thi Tram, the two famous members of our
association.



Prof. Dr. Le Thi Hop, VAFIW President.

Ladies and Gentlemen,

After 13 years of establishment and development, the Vietnam Association for Intellectual Women has grown up steadily; From 350 members when the Association was first established, and now has accounted to nearly 6,000 members (including 24 Professors, 224 Associate Professors, 727 PhDs and nearly 2,000 Masters); 1 member of the parliament, 2 Labor Heroes; 6 Ambassadors and there are 20 People's and 31 Outstanding Artists. Many members have been honored and accredited, domestically and internationally, noble awards such as: State Prize for Science and Technology, Ho Chi Minh Prize, Vifotex Prize, other international prizes, and awards from foreign funds (Sophia Kovalevskaja & L'Oreal-UNESCO Funds).

The Association has focused on promoting and enhancing the role of female intellectuals in scientific research. Through more than 100 scientific seminars, hundreds of research works published and presented at national and international conferences, the Association have affirmed the capacity of Vietnamese female intellectuals to make an important contribution to the socio-economic development of the country. In addition, the

Association also pays great attention to supporting female intellectuals in technology transfer and commercialization of their research products. We have also organized many training courses on intellectual property, and promoted the connection between scientists and businesses, creating conditions for female intellectuals' research products to be applied in practice.

Regarding to international relations, the Association has proactively expanded cooperation with foreign organizations, businesses and individuals. The membership of the International Network on Women Engineers and Scientists (INWES), and APNN, is an obvious demonstration of the Association's efforts of international integration.

Distinguished guests and esteemed colleagues,

Let me return to the work of the Conference. This is the second time the International Network on Women Engineers and Scientists in Asia-Pacific Region (INWES-APNN) has been organized by the Vietnam Association for Intellectual Women. The first time was held in 2018. This second time, the Conference has the theme ***"The role of intellectual women in science, technology***



Conference overview.

and international integration for sustainable development”.

This Conference is not only a forum for knowledge sharing, but also a bridge for us to build together a more sustainable future, where women are empowered and contribute all the best to the development of the community. Accordingly, the conference will focus on assessing the achievements as well as the challenges that women engineers and scientists’ organizations in the Asia-Pacific region are facing. Two scientific panels on “Gender & STEM” and “Health & Environment” will bring about in-depth perspectives on pressing issues in the fields of science, technology and innovation; and will make practical solutions. On the other hand, the conference will also make appropriate recommendations to promote the cooperation among the network’s members thus enhancing its contribution to the sustainable development in the region and the world.

Dear friends,

To contribute to the success of the conference, the Organizing Committee has received the

attention and assistance of the Vietnam Women’s Union, the coordination and support of the Vietnam National Innovation Center (NIC) and the companion and co-action of sponsors from HUD, EVN, VIN Group (i.e. VIN Innovation Fund VINIF, FGF) TH Group, Thai Duong Joint Stock Company, l’Oreal... and VAFIW’s members, branches and affiliated units. Again, I would like to thank you all.

I should also take this opportunity to express sincere thanks to the media and press agencies, for attending and making news promptly on the Conference.

On behalf of the Vietnam Association for Intellectual Women, I respectfully declare the INWES- APNN 2024 open.

I wish all distinguished guests and delegates good health and happiness.

I wish and do believe that we all together will make the Conference a great success!

Thank you very much.

SPEECH BY THE CHAIRMAN OF THE VIETNAM WOMEN'S UNION



Mrs. Ha Thi Nga, Member of the Party Central Committee, Chairwoman of the Vietnam Women's Union.

Dear Ms. Nguyen Thi Thanh, Member of the Party Central Committee, Vice Chairwoman of the National Assembly,

Dear leaders of ministries, sectors, and organizations,

Dear female ambassadors, delegates representing international organizations,

Dear female scientists and engineers, distinguished delegates,

Today, at the Vietnam National Innovation Center, the Vietnam Women's Union and the Vietnam Association for Intellectual Women are pleased to organize the 2024 INWES-APNN Conference. The conference is very honored to have the presence of Ms. Nguyen Thi Thanh, Member of the Party Central Committee, Vice President of the National Assembly and

international guests: Dr. Sarah Matilde Catherine Peers - INWES President, Dr. Juana Torrano Tapel - APNN Chair. Especially the presence of 60 scientists and female engineers in the Asia-Pacific region and more than 200 female intellectuals and female scientists from Vietnam.

Thank you for your presence at today's conference.

I wish Ms. Vice President of the National Assembly Nguyen Thi Thanh and the leaders of the National Assembly Committees, and all delegates good health and happiness, and hope that delegates from countries and territories will have interesting experiences during their stay in Vietnam.

I wish our Conference a great success!

Dear delegates,

With the theme of this year's Conference being selected as "The Role of Women in Science and Technology and International Integration for Sustainable Development", we will focus on discussing and exchanging on two important issues that are of particular concern, namely (1) Gender and STEM; (2) Health and the environment. These are issues that not only directly impact the development of each country but also affect the future of the entire region and the globe.

The world is entering a period of strong transformation under the impact of the explosion of artificial intelligence and data science. This poses enormous challenges, especially in the implementation of sustainable development goals. In addition, we are also facing serious problems of resource depletion, environmental pollution and climate change, which directly affect human health. As you know, in the past September, Vietnam and some countries in the region suffered the terrible devastation of storm No. 3 (Yagi), causing heavy damage and loss of life and property. In Vietnam alone, more than 300 people died and went missing, the total damage caused by storm No. 3 is estimated at over 81 trillion VND (equivalent to nearly 3.3 billion USD).

It is noteworthy that women and girls are more negatively affected than men because they make up a high proportion of small-scale agricultural households, living on nature while they lack knowledge and skills. United Nations studies also show that integrating gender into climate change response solutions not only ensures human rights and gender equality but also helps improve the effectiveness of this work.

Dear delegates,

The STEM (science, technology, engineering, mathematics) field accounts for a large proportion of the total human resource demand, and is an important pillar for development. There have been many famous and talented female scientists in the world, with research and contributions that have changed human history. The 2023 Nobel Prize in Medicine and Physics has named two female scientists for their contributions to creating an effective vaccine to prevent COVID-19 and researching electron dynamics in matter.

In Vietnam, despite facing gender prejudice in their pursuit of passion for scientific research, women have still affirmed their position and role in the field of science and technology. The team of female scientists has developed in both quantity and quality, with applied works that bring many benefits to society and the country. Many young female scientists and professors have been honored by international organizations such as UNESCO, Top 1% of influential scientists globally, Top 100 outstanding scientists in Asia...

Dear delegates,

These achievements are due to the attention of the Party and State of Vietnam through policies and strategies to promote the capacity and creativity of female intellectuals in the process of national development. Among them, the thematic resolution on continuing to build and promote the role of intellectuals to meet the requirements of rapid and sustainable national development in the new period has opened up opportunities for intellectuals in general and female scientists in particular to promote their capacity and creativity.

On the part of the Vietnam Women's Union, in recent years, we have had many activities to promote gender equality in the fields of science, technology and international integration such as: issuing a Resolution on "Supporting women in international integration until 2030"; proposing the Government to approve support projects so that women can be more proactive and active in the process of global integration such as the Project "Supporting women to start a business in the period 2017-2025" (Project 939). Commending and honoring female scientists and female intellectuals by maintaining the consideration and awarding of the Kovalevskaja Prize to female scientists in the field of natural sciences; awarding scholarships to female students majoring in Mathematics with excellent academic achievements; organizing a meeting of Government leaders with outstanding female intellectuals nationwide; supporting and promoting the establishment of the Vietnam Women Intellectuals Association in provinces and cities nationwide. Ladies and gentlemen,

In recent years, there have been many positive results in narrowing inequality and increasing the

proportion of women in scientific research, but the gender gap in STEM is still evident. Since the Nobel Prize was established in 1901, 640 scientists have been awarded in the fields of Physics, Chemistry and Medicine, of which only 26 were women, accounting for 3%.

According to the latest statistics, only 30% of researchers in the world are female, and in Southeast Asia alone, this rate is 27%. Women participate in only 21% of STEM jobs globally.

The study also shows that the proportion of female students studying technology-related fields in Vietnam is 37% (the regional average is 46%) compared to 61% (the regional average is 47%) in other fields of study. The gender gap that exists from primary and secondary education will directly affect women's future career choices. This issue becomes even more urgent when innovation, creativity, science and technology are identified as the key and driving force for development in the new era.

Ladies and gentlemen!

This Asia-Pacific Women Scientists and Engineers Network Conference is not only an opportunity

for Vietnam to listen and learn from countries in the region, but also an opportunity for female scientists from all countries to connect, share experiences and cooperate to create breakthrough initiatives to promote gender equality and empower women.

We expect that today's Conference will propose initiatives to promote the participation and further contribution of female scientists to sustainable development in science and technology and international integration. We would like to express our sincere thanks for the attention and support of the Party and State leaders, especially the presence of Vice Chairwoman of the National Assembly Nguyen Thi Thanh, leaders of ministries, departments, branches, Vietnamese organizations, scientists, and international organizations at today's conference. Thank you for your participation.

We wish all international guests a memorable time in our country, Vietnam.

Wishing our Conference a great success!

Sincerely thank you!



SPEECH BY THE CHAIRWOMEN OF THE ASIA-PACIFIC NETWORK OF WOMEN SCIENTISTS AND ENGINEERS



Dr. Juana Torrano Tapel, Chairwomen of the Asia-Pacific Network of Women Scientists and Engineers.

Thank you so much Madam Master of Ceremony.

To our distinguished guests, INWES President Dr. Sarah Peers, Immediate Past President Dr. Jung Sun Kim, VAFIW officers and members led by Dr. Le Thi Hop, fellow delegates, ladies and gentlemen. Good morning!

My warmest congratulations to the dynamic and committed women behind the Vietnam Association for Intellectual Women (VAFIW) for hosting the 2024 INWES APNN Conference with the theme, "The Role of Women in Science & Technology and International Integration for Sustainable Development." This year's theme resonates our contributions as scientists and engineers towards technologies for sustainable development.

As Chairperson of INWES APNN Cluster, I fully support this Conference and Meeting. As a matter of fact, we had reached out for more representatives specially those who had been absent in the past years, like Dr. Durdana and Nilusha, among others. Based on our records, we have 8 active individual members,

16 organizations and 1 institutional member. And almost all of these members are present and/or represented here. We can rekindle our feminine relationships again. And continue the partnership and collaboration towards our common goals. I believe that this Conference serves as the venue to enhance our insights, network with women of similar cause, and learn about the trends and latest development towards a better world.

From the bottom of my heart, I wish to thank all of you for your kind attendance and support to this INWES APNN 2024 Conference and Meeting. I encourage all of you to take active part in our noble task of building a stronger and progressive Asia Pacific Nations network. The best INWES cluster ever!

Am praying for more God's mighty blessing to have more successful events! Likewise, for INWES APNN and INWES as a whole to achieve a robust and smart organization.

Long Live INWES! Long Live INWES APNN!

Good morning again.

SPEECH BY DR. SARAH SPEERS, INWES PRESIDENT

Ladies and Gentlemen, colleagues, partners, and friends to the APNN conference here in beautiful Vietnam and this new science park, the National Innovation Centre.

INWES is a network of networks from over 50 countries: and APNN is an excellent example of what INWES members can do. Here are delegates from at least 11 countries in this region and that makes me very happy. We can all learn from each other: each country, each culture, each woman has so much to offer. But together we can do so much more.

As we embark on this conference, let us embrace the power of unity and diversity. Diversity is so important to innovation. But unity takes us

further. Let us engage in dynamic discussions, share our expertise, and build partnerships that transcend boundaries, that tackle difficult problems and support sustainable development.

Each one of us has a unique story, and together, we compose a powerful narrative—one of resilience, innovation, and collective impact. Tomorrow you will hear about the developing INWES program Herstories. I hope many of you will soon share your stories, past present and your hopes for a better future world.

I also want to let you all know that I am here to hear your views and thoughts about how to progress our common goal of ensuring full and effective participation of women in all areas of



Dr. Sarah Speers, Inwes President.



STEM. Please do come up to me and let me know what you want to see happen, how you want to see INWES work for all of us.

I want to thank the Vietnamese Association For Intellectual Women (VAFIW) for organising this important event in the INWES calendar, and I understand this is an important time for Hanoi. I should also thank the many important dignitaries representing the Vietnamese government, UNESCO, the Vietnamese Women's Union, and the science institutions here today. It is significant that government representatives are here: it tells us that you are recognized, that we women in STEM are considered important at least here in Vietnam. We hope other governments are watching and listening.

We at INWES learn from each other: and after hearing today about women developing new varieties of rice, as successful inventors and entrepreneurs, leading many technological solutions, and the activities of VAFIW, I say that women from other countries can learn from Vietnamese women in STEM. We also can share what might work to increase gender equality in STEM and what might not. Each of us here today is a testament to the progress we have

made, yet also a reminder of the work that remains.

Thank you all for your dedication, your ingenuity, and your unwavering commitment to excellence. Together, we are not just participants in progress—we are the catalysts. You are the architects of groundbreaking technologies and the pioneers of new discoveries that will shape smarter, greener cities and communities across Asia. Let's make this gathering yet another milestone of inspiration, empowerment, and transformative action.

Welcome once again to all to this INWES APNN conference, and let us look forward to a productive and enlightening experience. I hope to meet you all. I am proud to be your servant.

Thank you.



Ms. Nguyen Thi Thanh, Member of the Party Central Committee, Vice Chairwoman of the National Assembly.

WELCOME SPEECH OF THE VICE CHAIRWOMEN OF THE NATIONAL ASSEMBLY H.E. MDM. NGUYEN THI THANH

AT THE INTERNATIONAL CONFERENCE FOR
WOMEN ENGINEERS AND SCIENTISTS IN ASIA-
PACIFIC (INWES-APNN) 2024

Hanoi, October 4th, /2024

Dear Comrade Ha Thi Nga, Member of the Party Central Committee, Chairwoman of the Vietnam Women's Union,

Dr. Juana Torrano Tapel, Chairwomen of the Asia-Pacific Network of Women Scientists and Engineers,

Delegates representing female scientists from countries and territories in the region;

representatives of ministries, governmental departments, mass organizations, embassies and international organizations in Vietnam,

Ladies and gentlemen,

Today, I am very pleased to attend the 14th International Conference of the Asia-Pacific Network of Women Scientists and Engineers, which is also the second time to be held in

Vietnam in collaboration with the Vietnam Women's Union and the Vietnam Association of Women Intellectuals.

I would like to send my warmest greetings and best wishes to the international and Vietnamese delegates; leaders of agencies and organizations; leaders of the Vietnam Women's Union, the Vietnam Association of Women Intellectuals, especially female scientists and engineers attended the Conference.

Ladies and gentlemen!

The Party and State of Vietnam have always been deeply aware that:

"In every era, intellectuals have always been the foundation of social progress, the core force of knowledge creation and dissemination" .

Throughout the national development and the deep traditional values of national culture, the contingent of scientific and technological intellectuals has always had an important position and role, being a pioneering force, with their intellectual labor, independent and creative thinking capacity to create spiritual products, high-quality materials for society; is a special resource in the development of the knowledge economy, industrialization, modernization and international integration; an important factor in important factor in level-up the strength of a nation, making a great contribution to the cause of renewal, construction and defense of the Country.

Strengthening and promoting the role of intellectuals has always been a strategic area of sustainable development, a special concern of the whole political system.

In all the years, the institutional and policy framework for strengthening and developing the intellectual forces, creating favorable conditions, remuneration and honoring the creative works and contributions of the intellectual forces have been constantly improved, strongly approaching the world's progressive trend, with many important laws such as: Law on Science and Technology, Law on Technology Transfer, Law on Intellectual Property, Law on Standards and Technical

Regulations, Law on Atomic Energy, Law on High Technology, Law on Emulation, Commendation, etc. The forces of Vietnamese intellectuals are constantly growing, maturing, rich in patriotic, national spirit and pride, increasingly affirming its role as a leading force in research, innovation, application of science and technology, and international integration.

Ladies and gentlemen,

The Party and State of Vietnam always pay special attention to science and technology and innovation, considering this as one of the leading national policies for rapid and sustainable development.

The resolution adopted at the 13th National Party Congress affirmed the Party and State's policies to develop science-technology and innovation in order to create a breakthrough to improve the productivity, quality, efficiency and competitiveness of the economy. Innovation is clearly stipulated in the Law on Science and Technology, as well as many other legal provisions, mechanisms and policies.

Innovation has increasingly shown its important role and has truly become an indispensable driving force in the development of science and technology in particular and the national development strategy in general, which is the key to rapid and sustainable development; is an inevitable trend that cannot be reversed. In Vietnam, this is an important factor contributing to promoting digital transformation, green transformation and sustainable development of Vietnam in the new development era.

In October 1st, 2024, the Prime Minister declared October 1 as the national innovation day.

In the past few days, press and media agencies have continuously spread a good news on Vietnam's continued promotion in the global innovation index.

According to the report published by the World Intellectual Property Organization (WIPO) on September 26th, 2024, Vietnam ranked as 44th out of 133 countries and economies, up 2 places compared to 2023;



It is one of the 8 middle-income countries that have improved their ranking since 2013.

Vietnam continues to improve the ranking of innovation output, increasing by 4 places compared to 2023, from 40th to 36th position with 2 pillars of knowledge and technology products and creative products.

For 14 consecutive years, Vietnam has always had innovation results higher than the level of development, showing the efficiency in converting input resources into outputs of the knowledge economy. These important achievements have the great contribution of female scientists and engineers with high-quality research works and products, inventions with useful application value to solve urgent problems of the country, sectors and fields.

With an increasingly large number of forces and present in almost all socio-economic fields, the forces of female scientists and engineers have been strongly advancing and increasingly affirming their talents, wisdom and great creative potential in new scientific and technical fields. high technology.

Their presence has gradually reduced gender gaps in the fields of science, technology, engineering and mathematics. We are proud that among the nearly 6,000 members of the Vietnam Association of Women Intellectuals, many of them have been honored at prestigious domestic and international scientific awards, such as the State Prize for Science and Technology, the Ho Chi Minh Prize, the Vifotex Award, Kovalevskaja Prize, International Awards L'Oreal-UNESCO and many other international awards.

In which, 02 typical members of the Association were awarded the honorary title of Hero of Labor by the Government of Viet Nam. That is Assoc. Prof. Dr. Nguyen Thi Tram, a well-known person for her successful research achievements and transfer of dozens of high-quality, high-yield hybrid rice varieties, bringing many golden harvests to farmers and raising the level of Vietnam's agriculture; Congratulations to Ms. Nguyen Thi Tram, who on August 28 continued to be honored at the Ceremony of honoring scientific intellectuals, typical technology for the fifth time.

Another member is the "People's Doctor" GS. Dr. Huynh Thi Phuong Lien, who has devoted

her life to vaccine research with more than 100 published scientific works, has made miracles for the country's medicine such as producing vaccines in the battlefield of Zone V during the resistance war against the US; researching and producing inactivated Japanese encephalitis vaccine - a successful 1st generation vaccine, making Viet Nam the 4th country in Asia to produce VNNB vaccine since 1991...

Recently, PhD. MD. Nguyen Thi Phuong Thao, 33 year-old, currently working at the Vinmec Research Institute of Stem Cell and Gene Technology, became the first female scientist in Vietnam to be elected as a member of the Academy of Young Global Sciences in 2024.

Along with many other typical examples, they not only succeed in challenging scientific and technological tasks of the times, but also inspire the next generation of young female scientists to overcome gender prejudices, overcome difficulties in balancing the responsibilities of wives - a mother in the family with the pursuit of a passion for creativity, dedication, and conquering new heights in the field of STEM.

In addition, we also should frankly acknowledge that there are still many limitations in promoting a contingent of intellectuals in general and female scientists and engineers in particular, such as: Vietnam's human resources for research and development per 10,000 people in 2021 reached 7.68 (while the comparative index of the same period in Korea is 90.97, Japan was 56.13, China was 17.03); investment in scientific research is still disproportionate; the percentage of women participating in science and technology is still low, a gap and gender gap in STEM areas; mechanisms, policies, and working environments are not really favorable for women to maximize their creative capacities.

Globalization and the 4th industrial revolution have been having a rapid and far-reaching impact on all socio-economic fields on a global scale with the trend of strongly developing breakthrough technologies, building the foundations for fundamental changes.

This not only opens up great opportunities for Viet Nam to quickly access and apply the world's advanced scientific and technological

achievements, but also poses many challenges in terms of competitiveness, technological lagging ability, intellectual property issues, etc. Workshop at the Conference today will be a valuable opportunity to discuss, share experiences and build a strategic vision with practical and useful actions to continue to affirm the important role and position of women in the field of science and technology. promote participation, better promote the potential of female scientists and engineers.

I would like to commend the efforts of the Central Leaders of the Vietnam Women's Union and the Vietnam Women's Association of Intellectuals in connecting and expanding scientific and technological cooperation for Vietnamese women intellectuals with countries in the region; making worthy and responsible contributions to the general activities of the Network of Women Scientists and Engineers in the Asia-Pacific region.

I believe that, through sincerity, through exchanging and sharing successful experiences as well as difficulties and barriers, we will work together to find effective solutions and achieve the good goals that the Conference has set out its themed "The role of women in science, technology and international integration for sustainable development".

I do hope that, on this occasion, international friends will have an opportunity to visit and have an unforgettable experience about the country, people and culture of Viet Nam.

Once again, I would like to wish the delegates and distinguished guests with good health, happiness, success, and richful contribution to the cause of building and developing a prosperous and happy country.

Thank you very much.

II. ANNUAL APNN MEETING, 5th OCT 2024

OPENING SPEECH BY PROF.DR. NGUYEN THI DOAN

FORMER VICE- PRESIDENT OF VIET NAM, PRESIDENT
OF VIET NAM ASSOCIATION OF PROMOTING
EDUCATION, HONORARY PRESIDENT OF VAFIW
INTERNATIONAL NETWORK ON WOMEN ENGINEERS
AND SCIENTISTS ASIA-PACIFIC REGION
(INWES-APNN)

Hanoi, 4-5 October 2024

Dear delegates, women scientists and engineers

With respect and trust, I would like to send my warmest greetings and congratulations to all delegates attending the 2024 Asia-Pacific Network of Women Scientists and Engineers Conference held in Vietnam.

As we all know, the International Network of Women Scientists and Engineers (INWES), under the auspices of UNESCO, has been playing an important role in promoting gender equality in the fields of science, technology, engineering and mathematics (STEM). With more than 250,000 members from 60 countries and territories, INWES is truly a strong community, connecting talented, creative and passionate women.

The Asia-Pacific Network of Women Scientists and Engineers (APNN) have been making positive contributions to the overall development of the region. With the participation of 15 countries/ territories, APNN has become an important forum for female scientists and engineers to

share experiences learn from each other and work together to solve common challenges.

Hosting the 2024 Asia-Pacific Network of Women Scientists and Engineers Conference is a great success by the Vietnam Association for Female Intellectual Women (VAFIW), that is a clear demonstration of the dynamism, creativity and far-reaching vision of the VAFIW, and at the same time, that is the Association's meaningful contribution to the implementation of Resolution 45-NQ/TW of the 13th Party Central Committee on continuing to build and promote the role of intellectuals to meet the requirements of rapid and sustainable national development in the new period. The success of the Conference is not only demonstrating the important role of intellectual women in society but also affirming Vietnam's high position in the international arena in terms of science and technology.

The Conference has brought about new ideas and advanced technologies, contributing to promoting innovation related to science and



Prof. Dr. Nguyen Thi Doan.

technology in Vietnam. At the same time, it has introduced to international friends about the country and people of Vietnam, and the achievements by the country regarding to science and technology.

The Conference is also an important bridge for Vietnamese female scientists and engineers to exchange and learn from international colleagues. As a result, promoting research cooperation, technology transfer and enhancing the competence and competitiveness of Vietnamese female intellectuals.

The themes of this year's Conference: "Gender and STEM" and "Health and Environment" are urgent problems that reality is requiring scientists to solve and have important implications for the sustainable development of all nations. Through presentations and

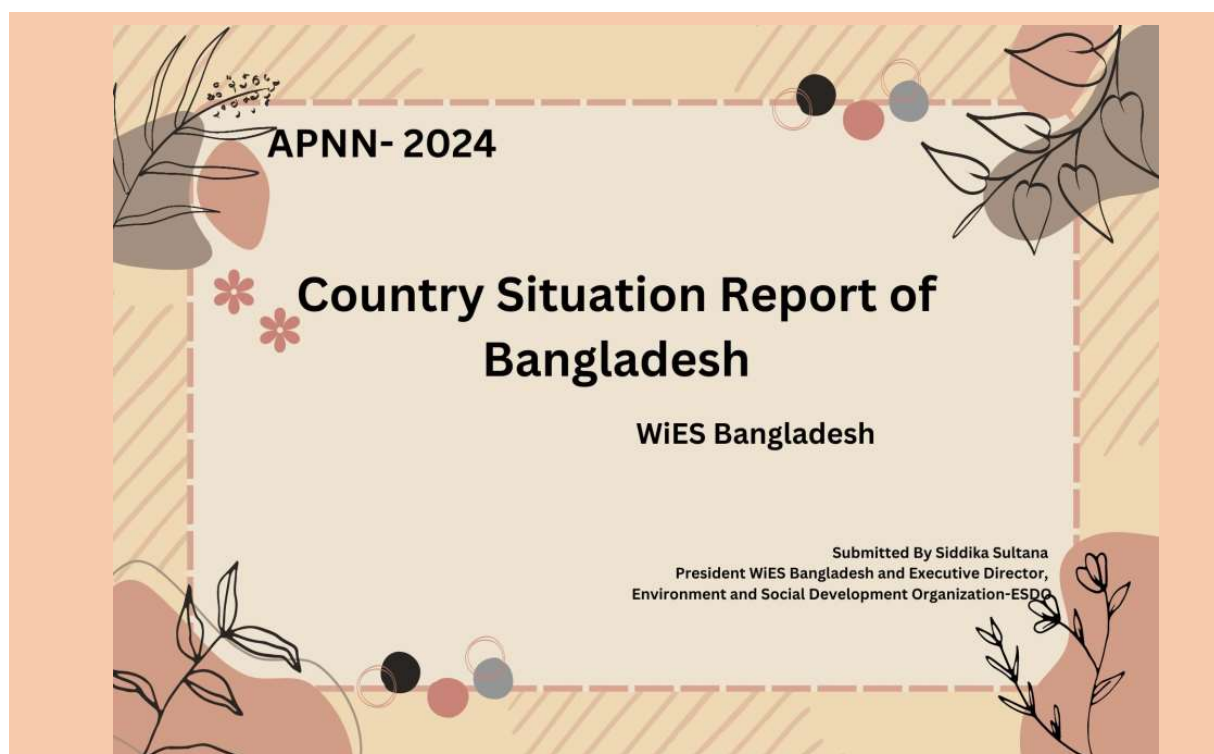
discussions, we draw experiences and achieve research successes, and apply them effectively into practice, thus making practical contributions to solving common problems of the world, the region in general and each country in particular.

Hopefully, through this Conference, the solidarity and cooperation in scientific research, and the sharing in life, among women scientists, will grow more and more. We will definitely succeed, affirming our role in the comprehensive and sustainable development of individual countries, the region and the world.

In conclusion, I wish the Conference great success. I wish the delegates two productive working days and many beautiful memories in Vietnam.

III. COUNTRY REPORT

2024 APNN COUNTRY REPORT OF BANGLADESH



2024 APNN Country Report of Bangladesh		
Name of Country	Bangladesh	
	Official name	Environment and Social Development Organization
	Address	House # 8/1, Level # 5, Block # C, Lalmatia, Dhaka- 1207, Bangladesh
	Website	https://esdo.org
	Email	info@esdo.org
	Telephone no.	+880 1726-053420
Organization representing your country	No. of members	50
	Year of INWES membership	3
	Main activities	Environment and Social Development Organization- ESDO is a non-profit and non-government organization based in Bangladesh. It is working to spread the message about the need for environmental conservation- to ensure the protection of biological diversity and ecological balance. Since the official formation of ESDO in 1990, we strive to improve the livelihoods, socio-economic status, and environmental education of some of the vulnerable communities in Bangladesh. ESDO invests in the people to care for the environment by providing essential inputs and capacity building. As a pioneer organization to ban Plastic Bags in Bangladesh, we want to ensure self-reliant urban and rural communities that live in harmony with their healthy environment.
	Goals/other information	Mission: To promote and encourage an environmental movement through a participatory democratic framework involving diverse social groups, and to assist them with ideas, information, and leadership for promoting a safe, sustainable, and toxic-free world.
		Vision: See Bangladesh, as well as all developing nations in Asia, Africa, and Latin America, achieved the Sustainable Development Goals, and in contributing to this works to protect and conserve nature and life from toxic and plastic pollution; reduce poverty; increase literacy and education; empower women in rural communities, and improve sanitation and health services through sustainable environmental
		1

Representative of Organization	Name	livelihood. <u>Core Values:</u> • Integrity • Honesty • Equality • Accountability • Quality <u>Goals:</u> • Women's Leadership Development • Policy Advocacy • Women's Empowerment Ms. Siddika Sultana
	Affiliation/ Specialization Email	President Women in Engineering and Science – WiES Bangladesh siddika@esdo.org
Names of other organizations for women in your country (include websites or social media, particularly those newly founded in STEM area)		Bangladesh Women's Foundation Organization for Women's Development in Bangladesh Bangladesh Mahila Parishad Women Entrepreneur Association of Bangladesh Hope Foundation for Women & Children

2

1. Main activities since 2023 APNN meeting

• Seventh Global Environment Facility (GEF) Assembly

The Asia Pacific regional preparatory meeting for COP-5 of the Minamata Convention on Mercury took place on September 5 and 6, 2023, in Bangkok, Thailand. Its primary purpose was to prepare for the upcoming COP-5 meeting, scheduled for October 30 to November 3, 2023, in Geneva, Switzerland. During this preparatory meeting, the provisional agenda was discussed and developed in collaboration with COP-5 Bureau members representing the Asia and Pacific region. The agenda included presentations of documents to be addressed at COP-5. Additionally, there were discussions among governments and civil society organizations in the region to formulate positions.



3

- **The Asia Pacific Regional Preparatory Meeting for COP 5 and Science Policy Panel**

Environment and Social Development Organization- ESDO's Executive Director, Siddika Sultana and Research and Campaign Associate, Shanon Iffat Alam attended the meeting on behalf of ESDO, World Alliance for Mercury Free Dentistry and Zero Mercury Working Group (ZMWG).



4

- **Regional Meeting of Fifth Meeting of the International Conference on Chemicals Management (ICCM5)**

The Bonn World Conference Center hosted the ICCM5 meeting from September 25 to 29, 2023. The Intersessional Process for Consideration of the Strategic Approach to International Chemicals Management (SAICM) and the Sound Management of Chemicals and Waste Beyond 2020 (IP4.3).

Dr. Shahriar Hossain, the secretary general of ESDO, and Siddika Sultana, the executive director of ESDO, took part in IP4.3. At this conference, Ms. Sultana intervened on the strategic objectives and targets section on the timeline of the sound management of chemicals.



5

- **Meeting with Department of Environment (DoE) on Minamata COP-5**

There was an open discussion about the Bangladesh position paper to be submitted at the COP-5. ESDO's Secretary General Dr. Shahriar Hossain and Executive Director Siddika Sultana attended the meeting along with Research and Campaign Associate Shanon Iffat Alam and Intern Neherin Zakia. The presentation on the draft position paper was presented by Shanon Iffat Alam. The presentation started with the overview and major highlights of COP-5. As stated, the African countries combinedly proposed some amendments. The amendments were made majorly for four types of mercury-added products as well as the mercury waste threshold.



6

- **National Policy Dialogue with Private Sectors to Observe International Lead Poisoning Prevention Week (ILPPW) 2023**

Dr. Farhina Ahmed, Respected Secretary, Ministry of Environment, Forest and Climate Change (MoEFCC) was present as a chief guest at the event. Syed Marghub Murshed, the respected Chairperson of ESDO, and Ms. Emma Brigham, Deputy Representative of UNICEF Bangladesh, were also present at the event as special guests. The event was chaired by Dr. Fahmida Khanom, Additional Secretary (Development Wing), MoEFCC. Maya Vandenant, Chief-Health Section, UNICEF, officially opened the event. Dr. Shahriar Hossain, Secretary General, ESDO participated at the event as the moderator. Dr. Priscilla Wobil, Health Specialist, UNICEF Bangladesh along with Siddika Sultana, Executive Director, ESDO, were also present at the event.



7

On behalf of ESDO, Dr. Shahriar Hossain, Secretary General, ESDO, and Siddika Sultana, Executive Director, ESDO, are actively participating at the meeting. Siddika Sultana intervened on dental amalgam at the meeting.



• **Webinar on Dangerous Chemicals in Cosmetics: Challenges and Solutions for a toxic-free world**

A webinar was organized by the World Future Council, Future Policy Award & FPA 2023: FOR A TOXIC-FREE WORLD. The webinar covered the worrying topic on dangerous beauty aids, especially for children and young people. The World Future Council aims to pass on a healthy and sustainable planet with just and peaceful societies to our children and grandchildren. To achieve this, we focus on identifying, developing, highlighting, and spreading effective, future just solutions for current challenges facing humanity and promote its implementation worldwide. In this webinar they discussed the impact of the Minamata Convention and national legislations to protect children and young people, especially girls and young women, against skin lightening products, understand the socio-cultural background and the importance to regulate the market and raise awareness. Ms. Siddika Sultana, Executive Director Environment and Social Development Organization-ESDO, Bangladesh as a panelist. She shared that ESDO is diligently organizing awareness campaigns to shed light on the hazards associated with skin-lightening cosmetics. We have been working with Zero Mercury Working Group and European Environmental Bureau (EEB) since 2016. Our approach includes impactful social media campaigns, the dissemination of informative case studies, and the creation of video documentaries involving dermatologists, victims, parlor associations and youth. We are committed to actively analysing the presence of mercury in skin-lightening creams available Bangladeshi markets, providing crucial insights. We disseminate our findings through media, and engage with both online and physical sellers. Our activities received enormous coverage by news channels. By fostering awareness at the national level, ESDO played a key role in assisting Bangladesh Government to ratify Minamata Convention on Mercury in 2023.

9

• **Children's toys in Bangladesh reveal high levels of lead, mercury, and cadmium, posing a toxic threat**

High concentrations of toxic heavy metals, including lead, mercury, and cadmium, were discovered in children's toys in Bangladesh. The safety of children's toys is in question following the release of a report titled "Innocence Touched by Shadows: Investigating Toxic Chemicals in Toys" by ESDO. These findings have prompted urgent concerns regarding the potential risks to our children's health and development, underscoring the necessity for immediate action to tackle this crucial matter. The Report release through a media briefing on 23 October 2023 (Monday) at ESDO head office. The event was chaired by Syed Marghub Murshed, Former Secretary of the Government of the People's Republic of Bangladesh and Chairperson of ESDO. Md. Abul Hashem, Former Chairman of Jahangirnagar University and Technical Advisor from ESDO and Dr. Abdullah-Al Faisal, Deputy Program Manager, DGHS were also present at the event. Thony Dizon from Ban Toxics virtually joined the event.

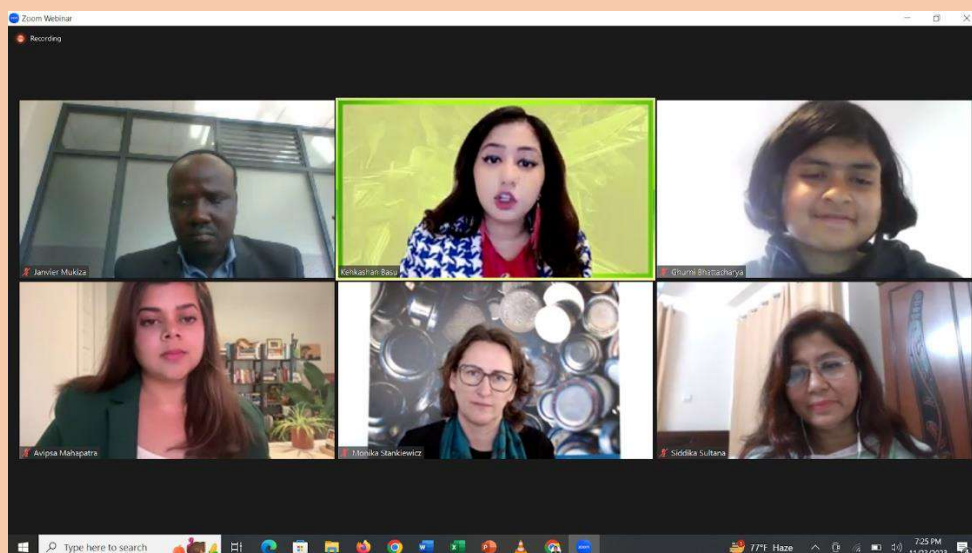


• **ESDO Intervention on Dental Amalgam at COP5**

The Minamata Convention on Mercury, a global agreement to prevent exposure to mercury and its compounds for both human health and the environment, was established in 2013. Mercury is a naturally occurring element that may be released into the air and water by industrial operations, mining, deforestation, trash incineration, and burning fossil fuels.

The 5th Meeting of the Conference of the Parties to the Minamata Convention on Mercury is taking place this year from October 30 to November 3 in Geneva, Switzerland. The Conference of Parties (COP) will examine the first comprehensive set of national reports submitted by countries on the phase-out of mercury use, debating potential expediting measures and potential improvements to the reporting structure.

8



10

- **A report on PFAS “Forever Chemicals” Found in Outerwear and Clothing Sold Globally**

A study released by Arnika, IPEN and 13 IPEN member groups and partners found toxic per- and polyfluoroalkyl substances (PFAS) chemicals, including globally banned substances in outdoor jackets and clothing purchased from thirteen countries across Asia, Africa, Europe, and North America. Most of the outdoor jackets were marketed for children and many of the products come into direct contact with skin. PFAS, called “Forever Chemicals” due to their extreme persistence in the environment, are used in clothing and other products to confer stain- and water-resistance. But the study also found jackets and clothing made without PFAS, demonstrating that safer alternatives to the toxic substances are available. For this study, jackets and other clothing sold as water- or stain-resistant were purchased from 13 countries in Asia, Africa, Europe and North America. Most of the jackets tested were marketed for children. Countries included were Germany, Czech Republic, Netherlands, Poland, United Kingdom, Serbia, Montenegro, Kenya, Bangladesh, India, Sri Lanka, Thailand, and the U.S.



11

- **Developing a Gender Action Plan in the Global Framework on Chemicals**

On 5 December 2023, the SAICM Secretariat and the Green Growth Knowledge Partnership (GGKP) hosted a discussion on "Developing a Gender Action Plan in the Global Framework on Chemicals". This community of practice discussion focused on sharing case studies and practical experiences integrating gender consideration into chemical and waste management.

Lara Ognibene, Legal Officer and Gender Focal Point, Secretariat of the Minamata Convention on Mercury presented the key elements of the strategies contained in the Minamata Convention gender action plan. After every presenter discussion, a poll response was posed to the participants to answer the poll to the related topics.

Siddika Sultana, Executive Director of ESDO and Fullkumari Khisa, Junior Project Associate of ESDO actively participated in the discussion.



12

- **EDC Free Asia II Conference**

The EDC Free Asia II Conference convened in Seoul, South Korea, on January 23, 2024. Among the participants were Md. Asif Imran, Senior Program Associate, and Shanon Iffat Alam, Program Associate, representing ESDO. The conference featured a study conducted by the Wonjin Institute of Occupation and Environmental Health (WIOEH), focusing on the detection of Endocrine Disrupting Chemicals (EDC) in personal care products in 8 Asian countries including Bangladesh. Experts in the field of chemicals from 10 Asian countries gathered to deliberate on the study outcomes and future campaigns. During the event, Shanon Iffat Alam, on behalf of ESDO, presented the findings of the study related to Bangladeshi samples. Additionally, she outlined essential steps to assist the Bangladeshi Government in implementing national regulations concerning EDC in everyday products.



13

- **Webinar PFAS in Asia: The forever chemicals in clothing, food packaging and water**

During the webinar convened by the EcoWaste Coalition in the Philippines and Toxics Link in India, key figures including Chinkie Peliño-Golle, Manny Calanzo, and Tripti Arora presented the findings of a comprehensive survey on the prevalence of per- and polyfluoroalkyl substances (PFAS) in clothing, food packaging, and water throughout Asia. Jitka Strakova, a Global Researcher from IPEN, elaborated on the global implications of the survey's results. Following these presentations, participating organizations offered their insights and perspectives on the urgency of addressing PFAS contamination. Stakeholders, as well as national officials and decision-makers, also shared their comments and remarks, underscoring the need for collaborative action to mitigate the risks posed by PFAS exposure in the region. Ms. Jitka shared some results from PFAS in water collected from different location in Bangladesh, which is an ongoing project.



14

- **Media Brief and Report Launch on “Detection of Endocrine Disruptors in Personal Care Items in Bangladesh”**

Environment and Social Development Organization-ESDO held a press briefing today at ESDO head office to unveil a new report titled "Detection of Endocrine Disruptors in Personal Care Items in Bangladesh." The findings of this study are alarming, indicating high levels of parabens in toothpaste and handwash products sold in Bangladesh. This research, conducted in collaboration with the Wonjin Institute for Occupational and Environmental Health (WIOEH) in South Korea, aimed to investigate the use of endocrine disrupting chemicals, parabens in local personal care products due to health concerns.

This study underscores the potential health risks associated with these chemicals, including disruptions in hormone regulation, reproductive issues, and potential carcinogenic effects from parabens.

The event was chaired by Syed Marghub Murshed, Chairperson of ESDO and Former Secretary of Bangladesh, he expressed concern about the presence of parabens in daily personal care items. Prof. Dr. Abul Hashem, Senior Technical Advisor of ESDO, Dr. Anwar Sadat, Deputy Program Manager, DGHS. Poyeon Kim, Younghwan Chu from the Wonjin Institute for Occupational and Environmental Health (WIOEH) and Tripti Arora, Coordinator from IPEN participated virtually in the event.



15

- **International Women's Day**

Environment and Social Development Organization - ESDO hosted a webinar titled "Chemical Exposure by Hazardous Waste Affecting Gender: Youth Involvement Initiatives and Further Thoughts" to commemorate International Women's Day. The webinar delved into the critical issue of how gender is impacted by chemical exposure.

Tripti Arora, Coordinator of IPEN South Asia Hub, and Chalani Rubesinghe, Project Planning, and Management Officer at the Centre for Environmental Justice (CEJ), were present as speakers, shedding light on the country-specific situations regarding Chemical Exposure by Hazardous Waste. Ram Charitra Sah, Executive Director of CEPHED, also graced the event, sharing invaluable insights on this pertinent issue.

Representatives from BYEI, LP4Y, Bangladesh Girl Guides, and students from various schools actively participated in the webinar, contributing to the enriching discussion.



16

- **Inception workshop "Country Situation Assessment on Children's Environmental Health"**

The Inception Workshop was aimed at preparing for the performance of a country assessment of children's environmental health (CEH) in Bangladesh. Its objectives included identifying children's environmental health priorities, estimating the total health burden affecting children, coordinating with partners, and creating a national strategy and action plan to address CEH. The total health burden was estimated to be caused by exposure to ambient and household air pollution, chemicals (such as lead, arsenic, cadmium, mercury), noise, and heat stress.

The Inception Workshop focused on four thematic areas of children's environmental health, with the participation of public health, child health, environment, and other relevant stakeholders. One objective of the Inception Workshop was to seek guidance, input, and potential participation from professionals in Bangladesh who were or had been involved in research relevant to health effects in children from air pollution, chemicals, noise, and heat stress. This included research on exposure indicators, availability of exposure data, health effects in children from exposure to these pollutants and stressors, and methodologies for estimating health burdens, with health burdens understood as both illness and mortality and effects that compromised children's future human capital, such as stunting, adverse birth outcomes, cognitive and learning impairments, and behavioral effects.

On behalf of ESDO, the Executive Director Siddika Sultana and ESDO's Program Associate Shanon Iffat Alam participated in this meeting. Ms. Siddika Sultana provided significant insights into Mercury pollution studies and its health impacts.



17

• **Report Launching and Media Briefing on Persistent Threat: PFAS in Textile and Water in Bangladesh**

A recent ESDO and IPEN study reveals alarming levels of toxic PFAS chemicals in Dhaka's surface and tap water, primarily from textile industry waste. Known as "forever chemicals," PFAS are linked to severe health risks, including cancer and liver damage. On behalf of ESDO, Dr. Shahriar Hossain, Secretary General, ESDO, and Siddika Sultana, Executive Director, ESDO were present at this briefing along with the ESDO team and media representatives. Also, From IPEN team, Sara Brosché, and Jitka Strakova joined through Zoom. ESDO organized this report launching and media briefing to share the findings:

- PFAS detected in 87% of surface water samples.
- Some water samples exceeded safe limits by thousands of times.
- Tap water in Dhaka also tested above US safety thresholds.



18

• **3rd Meeting of the Ad Hoc Open-ended Working Group on a Science-Policy Panel to Contribute Further to the Sound Management of Chemicals and Waste and to Prevent Pollution**

A new panel is being designed to provide scientific advice to policymakers on improving chemicals and waste management, with decisions expected to have long-lasting impacts. Chemical and waste pollution pose severe health and environmental risks, but scientific understanding is fragmented. UNEP Executive Director Inger Anderson urged delegates to streamline the foundational document. Key issues remain unresolved despite extended negotiations, and consensus has not been reached. The Open-ended Working Group (OEWG) agreed to forward the incomplete documents to a future meeting for finalization.

ESDO's Secretary General, Dr. Shahriar Hossain, Executive Director, Siddika Sultana and Program Associate Shanon Iffat Alam participated in the meeting and submitted a written document addressing to clearly define all technical terms, like "hazardous chemicals," "waste management," and "sustainable practices," to avoid ambiguity. Provide step-by-step implementation guidelines with examples and case studies. Establish continuous feedback mechanisms from stakeholders, including industry, environmental groups, government, and civil society. Invest in training programs to ensure consistent understanding and implementation across regions and sectors.

19



- **Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**

The 14th meeting of the Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (OEWG-14) is taking place from 25 to 28 June 2024 at the International Conference Center Geneva (CICG). The meeting is preceded by Bureau and regional meetings held on 24 June 2024.

On behalf of ESDO, Dr. Shahriar Hossain intervened on the technical guidelines on the environmentally sound management of waste lead-acid batteries and provides comments on agenda item 3.b.iv UNEP/CHW/OEWG.14/INF/15–Further consideration of plastic waste. Read the detail statements Intervention on Technical Guideline & ESDO Comments on agenda.

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- **Launch and Panel Discussion: Status, Potentials and Risks of Chemical Recycling of Waste Plastics | Basel OEWG-14**

Chemical recycling transforms plastic waste into raw materials for the chemical industry but faces significant challenges, including high costs, harmful emissions, and technical uncertainty. Methods like pyrolysis and gasification release toxic substances, and the process often results in inferior recycled materials. Clean-up initiatives and bioplastics address symptoms rather than root causes, and plastic-eating bacteria pose risks and uncertainties. Siddika Sultan of ESDO emphasized at Basel OEWG-14 that chemical recycling is currently unsuitable as a sustainable technology due to its energy intensity and lack of a net positive energy balance.



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- **Draft Formulation of Chemical Rule 2024 and PCB Management in Bangladesh- Existing legal Framework**

On June 26, 2024, Department of Environment, organized a workshop on "Draft Formulation of Chemical Rule 2024 and PCB Management in Bangladesh- Existing legal Framework."

The "Draft Chemicals (Management & Safety) Rules, 20xx" document aims to establish comprehensive regulations for the notification, registration, and restriction of chemicals and their intermediaries within Indian territory. The objectives include ensuring high-level protection for human health and the environment, managing chemical accidents, and overseeing the manufacture, storage, handling, and import of priority substances. The document also outlines exemptions and procedural guidelines for compliance, emphasizing the creation of technical expert groups to aid in chemical accident management and remediation.

On behalf of ESDO, Program Associate Shanon Iffat Alam participated in the meeting. She presented the key decisions from the OEWG 3.0 Science Policy Panel and recommended the



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inclusion of safety regulations, PFAS, and endocrine-disrupting chemicals.

2. Plan for 2025 activities

- ESDO X BAN Toxics Campaign on Plastic Toys (Detection of toxic chemicals in Toys)
- ESDO and UNICEF Bangladesh joint Project Titled “Addressing Children’s Environmental Health with a particular focus on Lead Poisoning in Bangladesh”
- ESDO, FEMNET and BILS joint project “Multi-actor partnership for Improved Due Diligence Implementation in the Textile Sector via Worker- and community based monitoring
- Follow up study on BPA in cash receipts
- PFAS in Food packaging

3. Vision and suggestion for future cooperation among APNN or/and INWES members

Strengthening Collaborative Research and Knowledge Sharing: ESDO suggests that APNN (Asia-Pacific Network for Global Change Research) and INWES (International Network of Women Engineers and Scientists) members collaborate more closely on research projects focused on environmental sustainability, chemical safety, and social development. By pooling resources, expertise, and data, members can drive innovation and develop scalable solutions to global environmental challenges.

Joint Advocacy and Policy Influence: ESDO recommends that APNN and INWES members work together to advocate for stronger environmental policies at both regional and global levels. This could involve joint statements, coordinated campaigns, and active participation in international forums and conventions. By presenting a united front, members can amplify their influence and push for the adoption of policies that align with sustainable development goals.

Capacity Building and Empowerment: To enhance the impact of their initiatives, ESDO proposes that APNN and INWES members focus on capacity building within their respective regions. This includes training programs, workshops, and mentoring schemes aimed at empowering women and young professionals in the fields of environmental science and engineering. By investing in the next generation of leaders, members can ensure the continuity and expansion of their efforts.

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Innovative Funding Mechanisms: ESDO suggests exploring innovative funding mechanisms to support joint projects and initiatives among APNN and INWES members. This could involve the creation of a dedicated fund or partnership with international financial institutions to secure funding for large-scale, impactful projects. Such mechanisms would enable members to implement more ambitious and far-reaching initiatives.

Enhanced Communication and Networking: ESDO emphasizes the importance of regular communication and networking among APNN and INWES members. Establishing dedicated platforms for sharing updates, best practices, and opportunities for collaboration would strengthen ties and foster a sense of community. Regular meetings, both virtual and in-person, would help maintain momentum and ensure that collaborative efforts are sustained over time.

4. Updated information of your own Organization including its structure and members

(this information could be helpful when women engineers and scientists want to collaborate with those working in specific areas).

No.	Name	Work/Research area	Affiliation	Email
1	Ms. Siddika Sultana	Social Development, Gender Equality and Equity, Environmental Health	Environment and Social Development Organization-ESDO	siddika@esdo.org
2	Ms. Shireen Ahmad	Leading women entrepreneur	Environment and Social Development Organization-ESDO	
3	Ms. Afroza Sultana	Social activist	Environment and Social Development Organization-ESDO	
4	Shanon Iffat Alam	Program Associate	Environment and Social Development Organization-ESDO	shanon@esdo.org

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5	Jannatul ferdous Jubly	Program Associate	Environment and Social Development Organization-ESDO	jubly@esdo.org
6	Sadmeen Sadaf Jahan	Research and Campaign Associate	Environment and Social Development Organization-ESDO	sadmeen@esdo.org
7	Tamanna Tasnim	Research and Advocacy Associate	Environment and Social Development Organization-ESDO	tamanna@esdo.org
8	Zarin Tasnim	Admin and Accounts Associate	Environment and Social Development Organization-ESDO	zarin@esdo.org
9	Maliha Haque	Communication, Senior Program Associate	Environment and Social Development Organization-ESDO	maliha@esdo.org
10	Iffat Jahan Mohona	counts and Admin Associate	Environment and Social Development Organization-ESDO	iffat@esdo.org
11	Nilufa Easmin	Design and Communication, Project Assistant	Environment and Social Development Organization-ESDO	nilufaeasmin923@gmail.com
12	Shaberu Rahman Shatu	Research and Campaign Associate	Environment and Social Development Organization-ESDO	shaberu@esdo.org

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13	Noshin Naila	Research and Campaign Associate	Environment and Social Development Organization-ESDO	noshin@esdo.org
14	Ashfia Mahbub Rafa	Volunteer	Environment and Social Development Organization-ESDO	ashfiamahbubrafa@gmail.com
15	Raisa Sultana	Assistant Professor, Geography and Environment	Geography and Environment, University of Dhaka	raisasultana@gmail.com

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2024 APNN COUNTRY REPORT OF INDIA

Country	INDIA	
Representative Organization	Organization	OSVSWA Women in STEM
	Year Established	OSVSWA established in 1981
	Address	Plot No. 1238/5055, Lane - 5, Mallick Complex, Jagamara, Bhubaneswar 751030, Odisha, India
	Website	http://www.osvswa.org
	Contact No.	+91 9692830805
	No. of Members	135
	Goals/other information	<p>Orissa State Volunteers and Social Workers Association (OSVSWA) as a national level NGO founded in 1980, and has been working on many issues including women in STEM, action for youth, gender equality, mental health, action based study and research, and many more.</p> <p>OSVSWA Women in STEM (as a part of OSVSWA) was established to:</p> <p>Mission:</p> <ul style="list-style-type: none"> ● Advocate, counsel, and conduct research to support women in STEM. ● Organize meetings, symposiums, seminars, conferences, and invited lectures specifically for women in STEM. ● Network with societies and organizations that share similar goals both nationally and internationally. ● Build an inclusive, self-sustaining community of students, postdoctoral scholars, and professionals to promote gender equality, diversity, and the success of women in STEM. <p>Vision:</p> <p>Fostering an environment that empowers women socio-economically and ensures their meaningful representation in decision-making roles within STEM fields.</p>

		<p>Core Values</p> <p>Empowerment: Creating opportunities for women and girls to explore and thrive in STEM fields by providing resources, mentorship, and support.</p> <p>Inclusion: Dismantling biases and barriers that prevent women from pursuing careers in STEM, ensuring an environment of equal opportunities and representation.</p> <p>Innovation: Promoting leadership development and career growth by fostering innovative thinking and creating conducive workplaces that nurture women's potential in STEM.</p> <p>Equity: Committed to improving employment prospects for women in STEM through advocacy, education, and the promotion of fair and inclusive practices in all areas of science and technology.</p> <p>Goals (2020-2025)</p> <ul style="list-style-type: none"> • To advocate for favorable gender neutral policies for participation of more women in STEM. • Carryout STEM training programs for girls (schools and colleges). • Organize Seminars / Webinars / Lectures series / Workshops having role models in STEM for wider dissemination. • Organizing science camps in schools and colleges to attract more girls in STEM. • Intensive study and research for women in STEM and publication of technical and scientific journals. • Carryout mega mentorship programs where female students can connect with female scientists, engineers and researchers.
Representative of Organization	Name	Dillip Pattanaik
	Position in the organization	Executive Director
	Work Affiliation	OSVSWA Women in STEM
	Title	Development Consultant
	Address	Plot No. 502/1, Lane – 9, Mallick Complex, Jagamara, Bhubaneswar 751030, Odisha, India
	Contact No.	+91 9439830805
	E-mail	dillippattanaik@gmail.com dillip.pattanaik@osvswa.org

We hope to increase the membership of APNN. Please recommend other women STEM groups, and their contacts, known to you either from your own country or from other Asia Pacific areas, which have not yet joined APNN or which are those newly founded for women in STEM fields.	We will gladly provide recommendations for women STEM groups and their contacts from our network, both within our country and across the Asia Pacific region, that have not yet joined APNN or are newly founded.
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Activities of your organization including best practice of networking women in STEM (Please share the information report of activities of your organization including projects; women in leadership in your country and etc;)

Sl. No.	Title of the Project	Sponsoring Authority	Designation	From	To
1.	SeedQual (Scaling Equitable Access to Quality Seed – Reaching the Unreached with Quality Pulses Seed in Odisha (gender equality in seed system development)	International Center for Agricultural Research in Dry Areas (ICARDA)	Partner	1st April 2023	March 30, 2024
2.	European Solidarity Corps (Humanitarian Aid Volunteering)	European Commission - EACEA	Partner	1st January 2023	December 31, 2024
3.	Farmers Collectives' Participatory Up scaling of Pulses Varieties, Technologies, and Seed-Input-Market Systems to promote Climate Smart Crop Intensification in Tank Command Areas in Odisha, India	Govt of Odisha in collaboration with the World Bank	Partner	1st January 2022	December 31, 2023
4.	Building Local Capacities through Education and Local Action (LO-CA)	European Commission	Partner	1st January 2024	December 31, 2025

5	Menstrual Hygiene Management (MHM)	European Commission EACEA	- Implementing partner	1st January 2024	December 31, 2024
6	SAFER (Securing Agriculture from Environmental Risk)	European Commission EACEA	- Implementing partner	Aug- 2023	Continuing
7	Comprehensive Rice Fallow Management in Rice Fallow Areas (Role of Women SHGs)	Govt. of Odisha	Technical Partner	Aug-2023	Continuing

Besides, Members of the **OSVSWA | Women in STEM** were also individually participated in conferences and seminars which is not reported yet.

3. Suggestions for future networks in your country or all over the world (Please make suggestions for building a better network among women in STEM in your country, in Asia and the Pacific and/or worldwide).

- Have a global call to action for gender diversity and equality in STEM policies to be institutionalized and made center stage at the highest levels.
- Facilitate a culture of inclusivity on women in STEM at all levels.
- Devise strategies and formalize programs to attract, recruit, and retain women in STEM at all levels.
- Provide a solid foundation early on so that women excel in STEM.

4. Detailed information of members (This information could be helpful when women engineers and scientists want to collaborate with someone working in specific areas. Providing an email address is optional)

SN	Name	Professional Affiliation	Area of Expertise
1	Dr Sakuntala Pratihary	Professor in Practice, Sri, Sri University, Phd in Geography	Climate Researcher, Author
2	Ms Basanti Sarangi	Doctoral Research Scholar in Rural Management. and Program Manager, Researcher at OSVSWA, India	Proficient in strategic planning, stakeholder collaboration, and implementing smart agriculture and climate change strategies. Expert in rural and community development, skilled in training, advocacy, and social inclusion.

3	Dr. Jyotsnarani Jena jenajyotsna87@gmail.com	Associate Technology Transfer Officer, KIIT-TBI, Bhubaneswar, Odisha, India	Environment & Sustainability, Circular Economy, Waste Management, Technology Transfer
4	Dr. Madhusmita Dash	Assistant Professor of Economics at Indian Institute of Technology Bhubaneswar. PhD in Economics	Economics of Natural Resource Management; New Institutional Economics; Environmental Economics; Renewable Energy; Ecotourism; Climate Change; Trans-boundary Water Conflict
5	Dr. Sarita Dash	Dept Botany, Assistant Professor, Berhampur University, Odisha, India Ph.D. in Biochemistry	Pharmaceutical Microbiology, Therapeutic Phytomolecules and their role in bacterial pathogenesis
6.	Dr. Rachana Chandra rachnaeia@gmail.com	Sri Sri University, M.sc Botany, –Environmental Sciences, Faculty of Agriculture	Industrial pollution, Bioremediation and restoration, Metals in various matrices, Wetland ecosystem, Restoration ecology and environmental pollution.
7	Prof. Rosalin Sahu	Associate Professor, Department of Chemistry, KIIT deemed to be University, Bhubaneswar	Metal Organic Frameworks and Covalent Organic Frameworks for different applications such as drug delivery, catalysis, NLO, wastewater treatment, etc.
8.	Dr Debasmita Patra	Managing Partner, M.Sc. Zoology, M.Phil Zoology,	Spectrophotometry, Safe UV chamber & autoclaving techniques, Single Flow Cytometry Technique to understand differentiation, Gel Electrophoresis, Centrifugation, Cryopreservation etc.
9.	Ms Palak Ahuja	Doctoral Research Scholar at IIT Kharagpur (Rekhi Centre of Excellence for the Science of Happiness)	Human Psychology, Organizational Behavior, Employee Behavior, Work Management, Happiness, Spirituality, Research & Data Analysis, Qualitative Research
10	Prof. Kshyanaprava Samal	Associate Professor, KIIT deemed to be University, Bhubaneswar	Irrigation Management and Groundwater, alternative building materials, soil Stabilization and Cost optimization in construction.

2024 APNN COUNTRY REPORT OF JNWES

Name of Country	Japan	
Organization representing your country actively	Official name	Japan Network of Women Engineer and Scientists (JNWES)
	Address	Sakae Sekkei Co., Ltd ATTN: Ryo Kimura 3-24-13, Kamiogi, Suginami-ku, Tokyo 167-0043 Japan
	Website	https://www.jnwes.org/japan-network-of-women-engineers-and-scientists/
	Email	
	Telephone no.	+81-90-2421-3162
Representative of Organization	No. of members	620
	Year of INWES membership	14years
	Main activities	Promoting domestic and international exchange and collaboration among female engineers and scientists. Career development for young woman engineers and scientists and support for female junior and senior high school students in choosing a career path in science and technology
	Goals/other information	Mission: Realization of a better society through science and technology. Vision: Proactive activities and contributions of women in each field of science and technology. Core Values: Building an international network and fostering female scientists. Goals: Achievement of diversity in Engineering and Science areas.
	Name	NORIKO IIZUMI
Names of other organizations for women in your country (include websites or social media, particularly those newly founded in STEM area)	Affiliation/ Specialization	TASUKU Consulting, Inc.
	Email	iizumi@tasuku-conslting.com NPO STEM Career Path Project for Girls (GSTEM-CPP) https://gstem-cpp.or.jp/en/
		Yamada Shintaro D & I Foundation https://www.shinfdn.org/
		The Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering (EPMEWSE) https://djrenrakukai.org/index.html

1. Main activities since 2023 APNN meeting

July 2023: JNWES members participated APNN (Mongolia)

August 2023&2024: At a summer school for junior and senior high school girl students (support for continuing to science-related subjects), each JNWES affiliated organization held a poster exhibition, etc.

May and July 2024: Gave lectures at science course selection programs for female junior

and senior high school students in Kanagawa Prefecture.

August 2024: Gave lectures at Kanda Jogakuen Girls' High School to help students advance to science and engineering fields.

JNWES consists of four organizations, each of which holds at least one lecture per year on science and technology to raise awareness the current situation of women in science.

<Explanation for our organizations>



In detail, JNWES consists of SJWS, JWEF, JSPEW, and team Gimajo. Each is actively involved in activities and sometimes work together.

Below are the outlines of each organization.

SJWS (The Society of Japanese Women Scientists)

Every year, the SJWS gives active Japanese female scientists awards, which are Encouragement Award, Merit Award, and award winners give lectures to members.

URL-> <https://sjws.or.jp/>

JWEF (Japan Women Engineer Forum)

JWEF holds many annual science and technology seminars for female scientists and gives a special award for young researchers/engineers. JWEF was incorporated as a non-profit organization in March 2024.

Last year's activities include the following:

- Award Ceremony and Commemorative Symposium for JWEF Women Engineers

- "Together we can build a future for women engineers!" Lecture and Panel Discussion

- Let's make friends and connect! Let's interact with female engineers in the Tokai area!

- Mentoring Saloons

URL-> <https://www.jwef.jp/en/>

JSPEW (The Japan Society for Professional Engineers of Women)

Last year's activities include the following:

- Hosting of a symposium on unconscious bias.

- Networking event for Japanese/Korean Women professional engineers in Tokyo.

- Publication of a booklet on science career options for junior and senior high school girls.

- Tea party with students from Fukushima National College of Technology regarding careers in science and engineering.

Join Poster exhibition at summer school for junior and senior high school girls.

Team GIMAJO (women Engineers for Non-profit Charity of Hitachi Across NaTions:ENCHANT)

As a Hitachi Group, we are actively taking a science-based approach.

2. Plan for 2025 activities

- Participate APNN in Korea

- Participate in a summer school for junior and senior high school girl students.

- Give lectures at a science course selection program for female junior and senior high school students in Kanagawa Prefecture

- JNWES will be holding a workshop at Kanda Jogakuen Girls' High School to help students advance to science and engineering fields.

Each organization is planning, to hold at least one lecture per year on science and technology to raise awareness of women in science.

3. Vision and suggestion for future cooperation among APNN or/and INWES members

- Actively participates in APNN conferences and contributes as a director.

- All organizations will join forces to influence junior and senior high schools to increase the number of girls who choose science and engineering.

4. Updated information of your own Organization including its structure and members

No	Name	Work/ Research area	Affiliation	Email or Social Media
1	Noriko Iizumi	Management Consulting / IT	(Team GIMAJO) TASUKU Consulting, Inc.	iizumi@tasuku-consulting.com
2	Shinae Kondoh	Molecular Oncology, In vivo imaging	(SJWS) National Institute of Technology (KOSEN), Nara College	nskondoh@gmail.com

3	Yumiko Nagoh	Educaion/ Chemical Engineering	(JWEF) NPO STEM Career Path Project for Girls (GSTEM-CPP)	yumiko.nagoh2020@gmail .com
4	Nahoko Miyaji	Landscape Architecture	(JSPEW) Urban Design consultant,inc.	miyaji@udc-net.co.jp
5	Kumi Nitta	Electrical Engineering Hypervelocity Impact	(JSPEW) Japan Aerospace Exploration Agency (JAXA)	nitta.kumi@jaxa.jp
6	Tomoko Numazawa	Engineer Industrial Engineering	(JSPEW) Yokogawa Electric Corporation	Tomoko.Numazawa@ yokogawa.com
7	Ryo Kimura	Agriculture Architecture	(JSPEW) SAKAE design Co., Ltd.	r-kimura@sakae- sekkei.co.jp
8	Tamiko Ohkura	Chemicals & Medicine	(SJWS) Former University Lecturer	tamiko.ohkura0129@gmail .com
9	Fumie Takei	Professor/ Chemistry	(SJWS) National Defense Medical College	ftsakamoto729@gmail.com
10	Aguri Nakano	Professor/ Electronics	(JWEF) Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers	Nakano.Aguri@jeed.or.jp
11	Rie Yamaguchi	IT	(JWEF) YAMAGUCHI PLANNING CO., LTD.	rie.yamaguchi.24@gmail.c om
12	Miyuki Chigira	Architectural Design / Risk Management	(Team GIMAJI) Hitachi Architects and Engineers Co., Ltd.	chigira@hae.co.jp
13	Chikayo Kanda	Management Strategy Formulation / IT	(Team GIMAJI) Hitachi Industry & Control Solutions Ltd.	chikayo.kanda.ff@hitachi.c om
14	Azusa Akiyama	Cyber Security	(Team GIMAJI) Hitachi Systems Ltd.	azusa.akiyama.bg@hitachi- systems.com

		Analyst / IT		
15	Nami Kubo	Urban & Regional Planning	(JSPEW) PASCO Corporation	noabmu3604@pasco.co.jp
16	Kayoko Sugahara	IT	(JWEF) Former IBM	sugahara0@gmail.com

Note:

- Please use Time New Roman 13
- Page layout: Top 1" Bottom 1"
Left 0.75" Right 0.75"
- Line spacing: 1.5
- Length: 8 pages maximum
- Deadline: August 31st 2024

2024 APNN COUNTRY REPORT OF KWSE, KOREA

Name of Country	Korea	
Organization representing your country	Official name	The Association of Korean Woman Scientists and Engineers
	Address	Building B-409, Daejeon Information & Culture Industry Promotion Agency, 20, Daedeok-daero 512beon-gil, Yuseong-gu, Daejeon 34126 Korea
	Website	http://www.kwse.org/
	Email	kwse@kwse.or.kr, president@kwse.or.kr
	Telephone no.	+82-42-863-8310
	No. of members	2,243 members
	Year of INWES membership	Joined INWES in 1999
	Main activities	<ul style="list-style-type: none"> - International cooperation - Promotion of science education and science-friendly culture - Building scientific capability through networking
Representative of Organization	Goals/other information	<p>Core Values: Contribute to the national development of science and technology</p> <p>Vision:</p> <ul style="list-style-type: none"> - Expansion of the social infrastructure for women scientists and engineers - Cooperation in research activities through information and knowledge exchange - Enhancement of the social status and rights of women scientists and engineers <p>Goals:</p> <ul style="list-style-type: none"> - Strengthen global competence of women in science and engineering through international cooperation - Build a foundation for balanced development of human resources for the future - Support qualitative development of women and gender equity in STEM
	Name	Rhim, Hyewhon
	Affiliation/Specialization	Korea Institute of Science and Technology (KIST)
	Email	president@kwse.or.kr
Names of other organizations for women in your country	WISSET	Korea Foundation for Women In Science, Engineering and Technology https://www.wiset.or.kr/eng/main.jsp
	KOFWST	Korea Federation of Women's Science & Technology Associations https://www.kofwst.org/eng/index.php

1. Main activities since 2023 APNN meeting

1-1. World Women in Science and Technology (WWST)

The World Women in Science and Technology

(WWST) is an international database for women in STEM, serving as a platform to promote and support international cooperation. The Korean government recognizes the importance of WWST and is expected to engage with it more actively. Below is a brief explanation of the reasoning behind KWSE's perspective.

KWSE.org

WWST.or.kr

Networking Hub for International Cooperation:

World Women in Science and Technology

WWST

The Association of Korean Woman Scientists and Engineers (KWSE) is building a comprehensive database of international women scholars to discover talented women in STEM and promote international cooperation.

KWSE invites international researchers, scholars, entrepreneurs, and students to join the World Women in Science and Technology (WWST).

Benefits for Members

- Recommendations to government agencies, R&D institutes, and related organizations in need of female professionals.
- Access to information on women in the fields of science and engineering.

Eligibility

- Female scholars, researchers and entrepreneurs working in science and engineering.
- Female students majoring in science and engineering.

The Korean government first introduced the Master Plan for Fostering and Supporting Women in STEM in 2004 under the Act on Fostering and Supporting Women Scientists and Technicians. This master plan established mid- and long-term policy goals and directions for advancing women in STEM at the national level. It is updated every five years, and various support programs have been implemented under this plan.

The 5th Master Plan (2024-2028) was launched this year. Notably, the number of female

scientists and engineers joining WWST was included as a key performance indicator. The 5th Basic Plan is structured around four key strategies: inflow, growth, advancement, and diffusion. The WWST foundation is expected to play an important role in expanding female participation in emerging technology fields and strengthening international cooperation.

KWSE anticipates that the Korean government could support various international cooperation programs for women in STEM through WWST.

KWSE kindly request the active involvement of APNN member countries in joining WWST! (WWST website: <https://wwst.or.kr/>)

Basic Plan is structured around four key strategies: inflow, growth, advancement, and diffusion. The WWST foundation is expected to play an important role in expanding female participation in emerging technology fields and strengthening international cooperation.

KWSE anticipates that the Korean government could support various international cooperation programs for women in STEM through WWST. KWSE kindly request the active involvement of APNN member countries in joining WWST! (WWST website: <https://wwst.or.kr/>)

1-2. 2024 International Young Woman Scientist Camp

On Tuesday, August 13, 2024 International Young Woman Scientist Camp (YWS Camp) successfully took place at the IBS Science Culture Center in Daejeon, Korea. Marking its 13th year, the camp featured a diverse array of programs centered around the theme "YES (Young Engineers and Scientists), We Are the Future of STEM!" The Camp attracted 70 scientists and engineers from 12 different countries.

Two distinguished female scientists and engineers, Dr. Yim Jo-Ryeong (KARI) and Prof. Li Oi Lun (PNU), were invited as speakers. They shared not only their research outcomes but also their personal journeys as female scientists, highlighting both their successes and the challenges they have overcome. Their stories served as inspiring examples for the next generation.

This year, KWSE introduced new programs to the camp. An ice-breaking session eased tensions and fostered connections among participants. Team-building activities were also conducted to enhance essential soft skills such as teamwork and communication.

To promote exchanges between campers, KWSE organized sessions for the three finalists from the 2024 YWS Webinar and representatives of the Smart Sister Program (SSP). The webinar winners had the opportunity to present their research and share their aspirations as scientists, while SSP representatives presented their activities focused on strengthening academic capabilities and cultural adaptation in Korea. The audience benefited from these experiences by engaging in healthy competition with fellow researchers at similar career stages, fostering personal growth.

A particularly meaningful aspect of this year's camp was the attendance of two talented young



female scientists and engineers from Mongolia, recommended and supported by Mongolian WSTEM. Despite the reduction in KWSE support for young women scientists and engineers in APNN regions since COVID-19, we are grateful for WSTEM's support, which allowed us to invite these talented Mongolian participants.

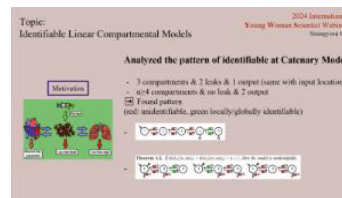
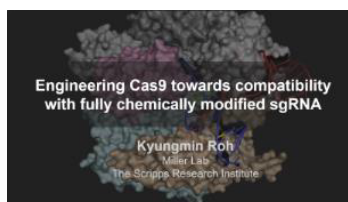
1-3. 2024 International Young Woman Scientist Webinar

2024 YWS Webinar concluded on June 14 after two research presentation sessions. Focused on the theme "Sharing Experiences of Taking on Challenges," the webinar participants to discuss their motivations for becoming scientists alongside their research presentations. A total of 38 young women scientists and engineers

from 12 countries, covering 12 research fields, submitted applications.

The first screening evaluates three-minute speech based on creativity, proposal structure, and presentation skills. These presentations were shared on KWSE's YouTube channel, enabling participants to explore each other's work. Six candidates advanced to the second screening.

The second screening, held on July 14, featured real-time presentations with a Q&A time. Judges evaluated the originality, creativity, research quality, and presentation skills of the participants. The three highest-scoring presenters were selected and later showcased their research at the 2024 YWS Camp in front of the Camp participants.



1-4. Women Scientists Global Webinar

2024 Women Scientists Global Webinar focused on four major fields of science and technology. KWSE invited female scientists and engineers conducting research in Korea, the US, Canada and Australia to discover talented women scholars and gain insights into the latest R&D trends in these countries.

The series began in May with a webinar on Climate Change and Energy, followed by sessions on Advanced Biotechnology in June and Aerospace in September. The final session, focused on AI and Robotics, is scheduled for

October. Each session is approximately two hours long.

This year's webinar series is particularly significant as it facilitates multilateral exchanges on a single topic. For instance, during the October webinar, female scholars researching AI and Robotic in Korea, Europe, and Australia will present online in real time. This will provide valuable insights into the efforts each country is making to advance technology and promote international cooperation in these fields.

KWSE has hosted the Women Scientists Global Webinar since 2020. These webinar series

have led to three international joint research projects and one successful domestic (Korea) collaboration.

2. Plan for 2025 activities

BIEN 2025 & INWES APNN 2025

BIEN 2025 will be held in August 20 for three days in Seoul, Korea. In 2003, KWSE and female leaders organized BIEN, the first-ever convergence-themed international conference for women scientists and engineers in Korea. Focusing on Bio, Information, Environment/Energy, Nano, and Space technology, BIEN was designed to foster synergy through interdisciplinary exchanges. The conference encourages the participation of female scientists and engineers, aiming to

enhance collaborative innovation across these dynamic fields.

The INWES APNN Meeting will be held alongside BIEN 2025. Each event will feature plenary sessions, keynote speeches, invited lectures, and poster presentations covering a wide range of topics in science, technology, engineering, and gender issues and policies in STEM fields. For networking and leisure, attendees will be welcomed with a reception, enjoy a banquet, and participate in tours that highlight Korean culture. These social events will include captivating Korean cultural performances, visits to historical sites, and insights into the development history of science and technology in Korea.

Time	Aug. 20		Aug. 21			Aug. 22		
Morning	Registration		Scientific Sessions	Special Session	APNN Meeting	MAPWiST		
	Opening Ceremony							
	Plenary Session 1		Plenary Session 2					
Afternoon	Lunch		Lunch			Lunch		
	Scientific Sessions	Special Session	Scientific Session	Special Session	APNN Meeting	Optional Tour		
							Poster Session	
							Welcome Reception	
			Banquet			-		

3. Vision and suggestion for future cooperation among APNN or/and INWES members

3-1. Call for proposals for the YWS Webinar

KWSE is seeking young scholars in APNN regions to participate in the International Young Woman Scientist (YWS) Webinar. The YWS Webinar is an oral presentation contest designed for young students and junior researchers in STEM. KWSE operates this program to provide them with an opportunity to promote themselves and enhance their presentation skills. Since this webinar is conducted online, there are no physical distance barriers.

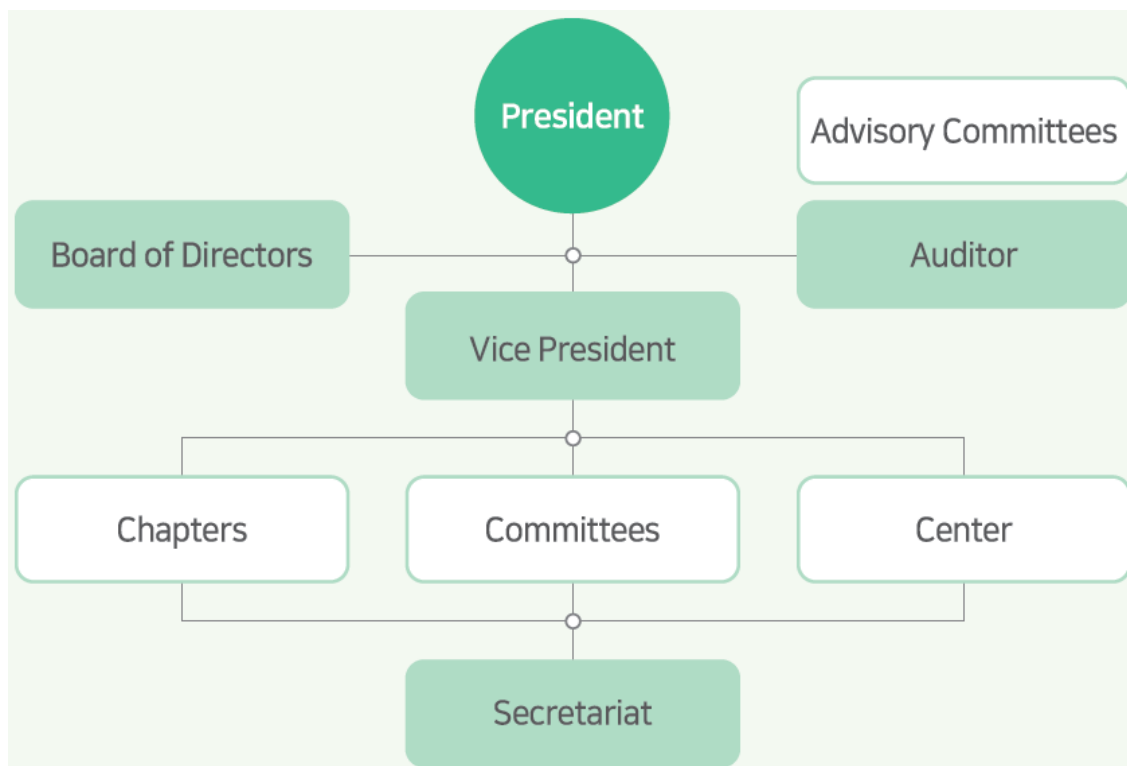
Details about the YWS Webinar will be posted in the KWSE website at <https://www.kwse.org/> around March, 2025. The announcement will be also sent to the APNN representatives. We kindly ask you to circulate the information once you receive it.

3-2. Join WWST and update your information

KWSE invites women in STEM to join WWST. Membership is completely free!

New members who join in 2024 will receive an e-voucher. For those who are already members, we kindly ask you to update your personal information. Please visit us at <https://wwst.or.kr/index.do> and become a member of WWST!

4. Updated information of your own Organization including its structure and members



Committees:

- Education and Academics
- General Affairs
- External Affairs
- Information
- Membership
- Policy Planning
- KWSE Center Development
- Industry
- International Network
- Next Generation
- Public Relations
- BIEN 2025 Planning

2024 APNN COUNTRY REPORT OF MALAYSIA

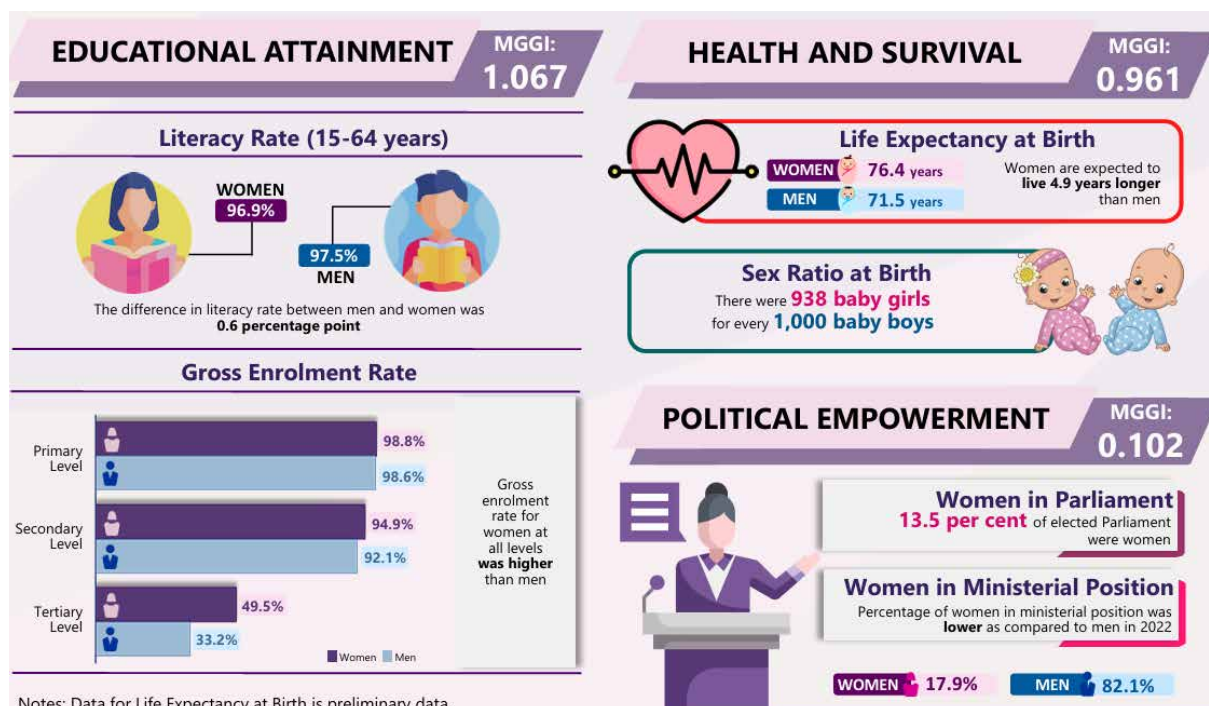
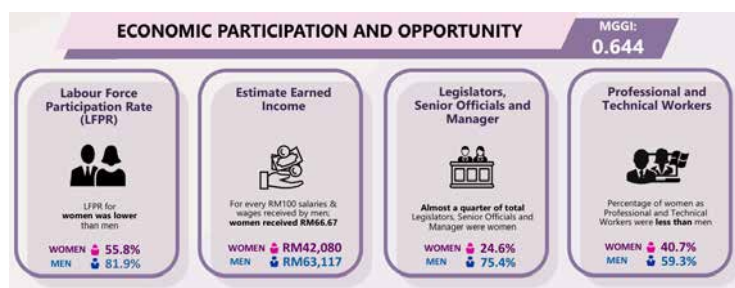
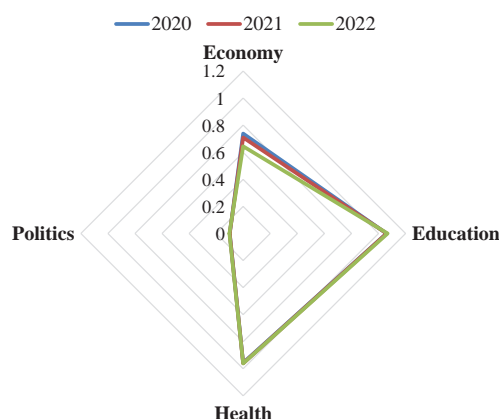
Country:	Malaysia	
Organization representing your country	Name:	Institution of Engineers, Malaysia (IEM)
	Address:	Bangunan Ingenieur, Lot 60/62, Jalan 52/4, Peti Surat 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor Darul Ehsan, Malaysia
	Website:	https://www.myiem.org.my/
	Contact #:	+603 7968 4001/4002
	No. of Members:	48,314
	Main activities:	<p>Promote and advance the science and profession of engineering in any or all its disciplines and facilitate the exchange of information and ideas related the engineering through:</p> <ol style="list-style-type: none"> 1. Talks/forums including career talks 2. Technical visits 3. Invited talks at universities and schools 4. Publication of technical papers, journal papers, editorials, write ups, and white papers 5. Presentation of technical papers at seminars and conferences 6. Competition 7. Judging of engineering challenges competition 8. Mentorship 9. Evaluation of engineering degree programmes at universities/colleges 10. Survey related to women engineers
	Years with joining with INWES APNN member organization as a member	7 years
	Goals/other information	<p>Mission:</p> <ol style="list-style-type: none"> 1. Promote sound professional engineering practice in support of the socio-economic development objectives of the nation. 2. Serve the needs and interests of its members and the public and uphold the social standing and image of the engineering profession. 3. Contribute towards nation building and shall strive to enhance society's consciousness of science and technology. <p>Vision: To be the premier learned engineering society championing the adoption of ethics and professional best practices in all sectors of the industry.</p> <p>Objectives:</p> <ol style="list-style-type: none"> 1. To hold meetings, exhibitions and visits, and such other activities as The Institution may deem incidental or conducive to the promotion or

		<p>attainment of the profession of engineering.</p> <ol style="list-style-type: none"> 2. To raise the character and status and advance the interests of the profession of engineering and those engaged therein; 3. To promote honourable practice and professional etiquette among members of The Institution; 4. To communicate to members information on all matters affecting the profession of engineering and to print, publish, issue and circulate such publications as may seem conducive to any of the objectives of the Institution; and 5. To do such other things as the Institution may think incidental or conducive to the attainment of the objectives of The Institution
Organizational Representative	Name:	Ir. Ts. Mah Siew Kien
	Role in above organization:	Vice Chair I
	Work Affiliation:	Artec Malaysia
	Title:	Chief Executive Officer
	Address:	27A&B, Jalan Tengku Ampuan Zabedah J 9/J, Seksyen 9, 40100 Shah Alam, Selangor, Malaysia
	Contact #:	+60 16 665 1849
	E-mail:	mah@artec.my mahsiewkien@gmail.com
<p>We hope to increase the membership of APNN. Please recommend other women STEM groups, and their contacts, known to you either from your own country or from other Asia Pacific areas, which have not yet joined APNN or which are those newly founded for women in STEM fields</p>		<ol style="list-style-type: none"> 1. Women in Maritime Association (MyWIMA) 2. Woman Technologist Chapter (WTC), Malaysia Board of Technologists (MBOT) 3. The Institute of Electrical and Electronics Engineers (IEEE) Malaysia Women in Engineering 4. Asian Pacific Resources and Research Centre for Women (ARROW) 5. Murni Women's Development Foundation of Kelantan (YAYASAN MURNI) 6. National Council of Women's Organizations, Malaysia (NCWO) 7. Secretariat for Women's Affairs (HAWA) 8. Women's Aid Organisation (WAO) 9. Sarawak Federation of Women's Institutes (SFWI) 10. Association Members of Professional Leaders Entrepreneurs (AMPLE) Malaysia 11. Women in LEAN 12. Females in Tech 13. Women Of Will

CONTENT OF AN ANNUAL REPORT

1. Current status in a network of women engineers and scientists In giving an in-depth view on women engineers and scientists in Malaysia, it is fundamental to explore the current status of women in the country. According to the Department of Statistics Malaysia (DOSM) (2023), Malaysian Gender Gap Index (MGGI) Score is 0.68 with economy, education, health,

and politics index at 0.644, 1.067, 0.961, and 0.102, respectively, whilst the details of each of the index are as shown in Figure 1. However, the gender gap index varies between different states in Malaysia as shown in Figure 2. In comparison with the global players, according to World Economic Forum's (WEF) Gender Gap Index 2024, released by the World Economic Forum on 11 June 2024, Malaysia has fallen 12 places from last year, now ranking 114th out of 146 countries as illustrated in Table 1.



Notes: Data for Life Expectancy at Birth is preliminary data.

Figure 1: Malaysian Gender Gap Index (MGGI) Score

Source: DOSM (2023)

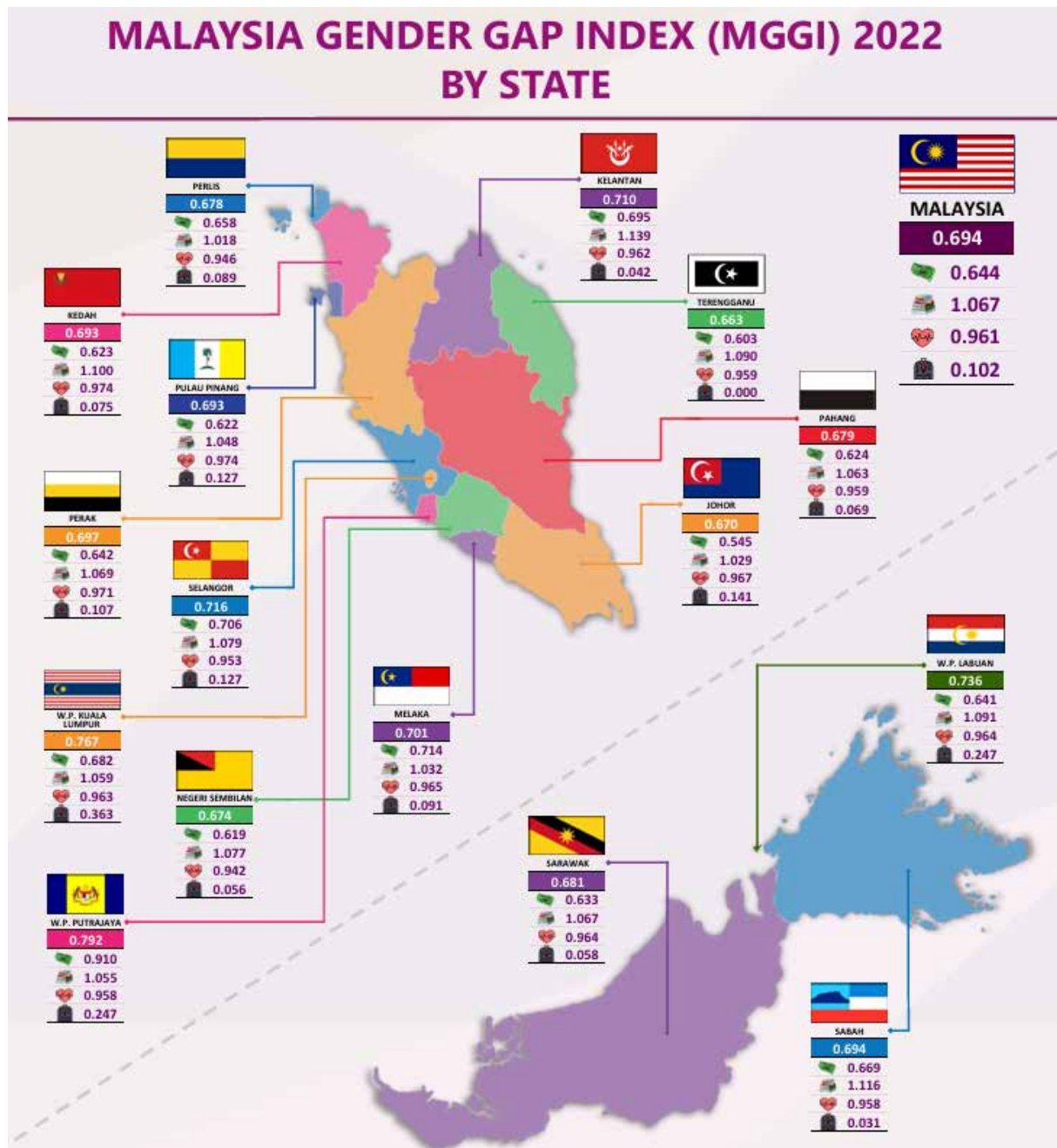


Figure 2: Malaysian Gender Gap Index (MGGI) Score
Source: DOSM (2023)

Table 1: The Global Gender Gap Index 2024 rankings
Source: World Economic Forum (2024)

Rank	Economy			Score	Score change from	Rank change from	Rank	Economy			Score	Score change from	Rank change from
1	Iceland	0.935		+0.023	-		74	United Arab Emirates	0.713		+0.001	-3	
2	Finland	0.875		+0.012	+1		75	Kenya	0.712		+0.004	+2	
3	Norway	0.875		-0.004	-1		76	Kazakhstan	0.710		-0.011	-14	
4	New Zealand	0.835		-0.021	-		77	Togo	0.710		+0.014	+13	
5	Sweden	0.816		+0.001	-		78	Bosnia and Herzegovina	0.710		+0.012	+8	
6	Nicaragua	0.811		-	+1		79	Ethiopia	0.709		-0.002	-4	
7	Germany	0.810		-0.005	-1		80	Sierra Leone	0.708		+0.040	+32	
8	Namibia	0.805		+0.003	-		81	Paraguay	0.707		+0.011	+10	
9	Ireland	0.802		+0.007	+2		82	Dominican Republic	0.706		+0.002	-1	
10	Spain	0.797		+0.007	+8		83	Uganda	0.706		-	-5	
11	Lithuania	0.793		-0.007	-2		84	Cyprus	0.705		+0.027	+22	
12	Belgium	0.793		-0.003	-2		85	Mongolia	0.705		-	-5	
13	Moldova	0.791		+0.003	+6		86	Timor-Leste	0.704		+0.011	+9	
14	United Kingdom	0.789		-0.002	+1		87	Italy	0.703		-0.002	-8	
15	Denmark	0.789		+0.008	+8		88	Ghana	0.701		+0.013	+12	
16	Ecuador	0.788		+0.051	+34		89	Lao PDR	0.700		-0.033	-35	
17	Portugal	0.787		+0.022	+15		90	Kyrgyz Republic	0.700		-	-6	
18	South Africa	0.785		-0.002	+2		91	Israel	0.699		-0.002	-8	
19	Costa Rica	0.785		-0.008	-5		92	Zambia	0.697		-0.002	-7	
20	Switzerland	0.785		+0.002	+1		93	Guatemala	0.697		+0.038	+24	
21	Chile	0.781		+0.004	+6		94	Republic of Korea	0.696		+0.016	+11	
22	France	0.781		+0.025	+18		95	Belize	0.696		-0.001	-6	
23	Albania	0.780		-0.011	-6		96	El Salvador	0.695		-0.019	-28	
24	Australia	0.780		+0.002	+2		97	Cameroon	0.693		-	-3	
25	Philippines	0.779		-0.012	-9		98	Lesotho	0.691		-0.011	-16	
26	Serbia	0.779		+0.019	+12		99	Bangladesh	0.689		-0.033	-40	
27	Mozambique	0.776		-0.001	-2		100	Indonesia	0.686		-0.011	-13	
28	Netherlands	0.775		-0.002	-		101	Hungary	0.686		-0.003	-2	
29	Estonia	0.774		-0.008	-7		102	Cambodia	0.685		-0.010	-10	
30	Latvia	0.773		-0.020	-17		103	Azerbaijan	0.685		-0.007	-6	
31	Barbados	0.773		+0.003	-		104	Czechia	0.684		-0.001	-3	
32	Argentina	0.772		+0.009	+4		105	Brunei Darussalam	0.684		-0.009	-9	
33	Mexico	0.768		+0.003	-		106	China	0.684		+0.005	+1	
34	Slovenia	0.766		-0.007	-5		107	Mauritius	0.683		-0.006	-9	
35	Guyana *	0.765		n/a	n/a		108	Uzbekistan *	0.681		n/a	n/a	
36	Canada	0.761		-0.010	-6		109	Senegal	0.679		-0.001	-5	
37	Jamaica	0.758		-0.022	-13		110	Gambia (Republic of the)	0.679		+0.028	+9	
38	Burundi	0.757		-0.006	-3		111	Vanuatu	0.673		-0.004	-3	
39	Rwanda	0.757		-0.038	-27		112	Tajikistan	0.673		+0.001	-1	
40	Peru	0.755		-0.009	-6		113	Angola	0.668		+0.012	+5	
40	Peru	0.755		-0.009	-6		113	Angola	0.668		+0.012	+5	
41	Cape Verde	0.755		-0.006	-4		114	Malaysia	0.668		-0.015	-12	
42	Liberia	0.754		-0.006	-3		115	Tunisia	0.668		+0.026	+13	
43	United States of America	0.747		-0.001	-		116	Bahrain	0.666		-	-3	
44	Bolivia (Plurinational State of)	0.746		+0.016	+12		117	Nepal	0.664		+0.004	-1	
45	Colombia	0.745		-0.006	-3		118	Japan	0.663		+0.016	+7	
46	Luxembourg	0.744		-0.003	-2		119	Comoros	0.663		-0.001	-5	
47	Eswatini	0.744		-0.001	-1		120	Burkina Faso	0.661		-0.015	-11	
48	Singapore	0.744		+0.004	+1		121	Côte d'Ivoire	0.655		+0.005	+1	
49	Austria	0.743		+0.003	-2		122	Sri Lanka	0.653		-0.010	-7	
50	Panama	0.742		+0.018	+8		123	Jordan	0.652		+0.006	+3	
51	Poland	0.740		+0.018	+9		124	Bhutan	0.651		-0.031	-21	
52	Zimbabwe	0.740		-0.007	-7		125	Nigeria	0.650		+0.013	+5	
53	Suriname	0.739		+0.003	-1		126	Saudi Arabia	0.647		+0.010	+5	
54	United Republic of Tanzania	0.734		-0.005	-6		127	Türkiye	0.645		+0.007	+2	
55	Belarus	0.733		-0.019	-14		128	Fiji	0.642		-0.009	-7	
56	Slovakia	0.731		+0.011	+7		129	India	0.641		-0.002	-2	
57	Botswana	0.730		+0.012	+7		130	Qatar	0.640		+0.013	+3	
58	Republic of North Macedonia	0.727		+0.016	+15		131	Kuwait	0.636		-0.015	-11	
59	Honduras	0.726		-0.009	-6		132	Maldives	0.633		-0.016	-8	
60	Bulgaria	0.723		+0.009	+5		133	Lebanon	0.632		+0.003	-1	
61	Croatia	0.723		-0.007	-6		134	Benin	0.629		+0.013	+4	
62	Malta	0.723		+0.010	+8		135	Egypt	0.629		+0.003	-1	
63	Ukraine	0.722		+0.008	+3		136	Oman	0.628		+0.014	+3	
64	Armenia	0.721		-	-3		137	Morocco	0.628		+0.007	-1	
65	Thailand	0.720		+0.009	+9		138	Niger	0.628		+0.006	-3	
66	Madagascar	0.720		-0.017	-15		139	Algeria	0.612		+0.039	+5	
67	Montenegro	0.718		+0.004	+2		140	Democratic Republic of the Congo	0.609		-0.002	-	
68	Romania	0.717		+0.020	+20		141	Mali	0.604		-	-	
69	Georgia	0.716		+0.007	+7		142	Guinea	0.601		-0.016	-5	
70	Brazil	0.716		-0.010	-13		143	Iran (Islamic Republic of)	0.579		+0.004	-	
71	Uruguay	0.715		+0.001	-4		144	Chad	0.576		+0.006	+1	
72	Viet Nam	0.715		+0.003	-		145	Pakistan	0.570		-0.005	-3	
73	Greece	0.714		+0.020	+20		146	Sudan *	0.568		n/a	n/a	
				</									

■ Eurasia and Central Asia
 ■ Eastern Asia and the Pacific
 ■ Europe
 ■ Latin America and the Caribbean
 ■ Middle East and North Africa
 ■ North America
 ■ Southern Asia
 ■ Sub-Saharan Africa

Source

World Economic Forum, Global Gender Gap Index 2024.

Note

"-" indicates score or rank is unchanged from the previous year. "n/a" indicates that the country was not covered in previous editions. * New to index in 2024.

In fact, looking at the MGGI over the years since 2017, DOSM (2023) records a declining trend with the lowest at 0.707 in 2021 as shown in Figure 3.

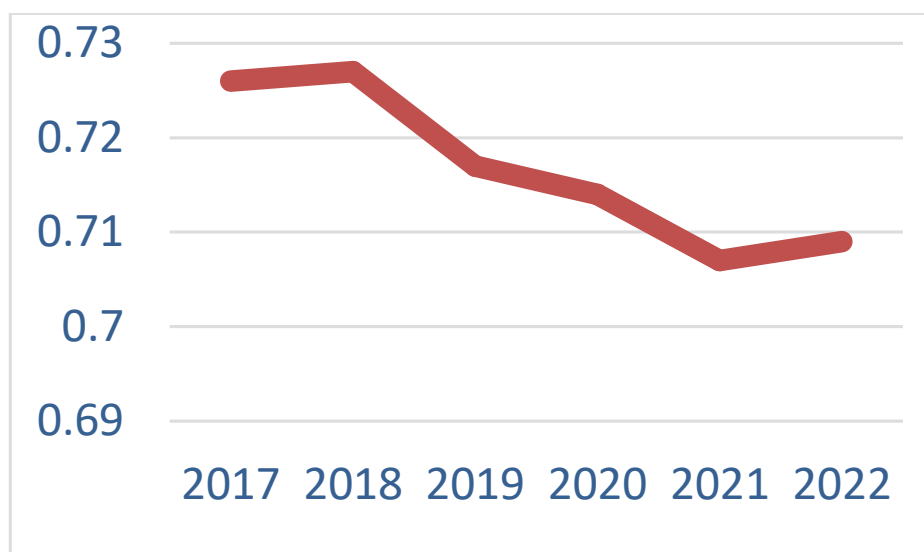


Figure 3: Malaysian Gender Gap Index (MGGI) Score
Source: DOSM (2023)

Since 2018, the Malaysian government has introduced two key initiatives—National Science Week (Minggu Sains Negara) and the Malaysia Techlympics—to promote science, technology, engineering, and mathematics (STEM) education and engagement. These programs, spearheaded by the Ministry of Science, Technology, and Innovation (MOSTI), aim to support formal education and drive a national science movement.

National Science Week, first celebrated from April 1 to 7, 2018, seeks to ignite interest in STEM across all levels of society, encourage the development of human capital, and inspire students to pursue STEM as a career path. Additionally, it recognizes the contributions of scientists, academics, and individuals who promote science in Malaysia.

Similarly, the Malaysia Techlympics focuses on fostering innovation among students and youth, aligning with MOSTI's 10-10 STIE Framework, which is designed to push the country's innovation agenda forward. These

initiatives complement the national curriculum by embedding STEM principles and encouraging inquiry-based learning, problem-solving, and critical thinking.

As a result of these efforts, the Ministry of Education reported a significant increase in STEM enrollment. As shown in mainstream media (Figure 4), STEM enrollment reached 50.83% in 2024, up from 41.84% in 2019. This rise reflects the ongoing efforts to boost interest in STEM subjects through modernized learning approaches, such as project-based learning and high-level thinking skills.

Despite this progress, the Malaysia Education Development Plan 2013-2025 highlighted some challenges, including low awareness of STEM, a perception that STEM subjects are difficult, inconsistent teaching quality, and outdated infrastructure. To address these issues, the ministry is implementing further measures to enhance STEM education, strengthen the curriculum, and improve the quality of learning environments across the country.

STEM enrollment jumps to 50.83 per cent among upper secondary school students

By Nur Ain Mohamed Razli, Qatrina Saifuddin - June 27, 2024 @ 10:17am



The ministry is consistently working to develop knowledgeable and skilled human capital to engage in the fields of STEM, based on the Malaysian Education Blueprint 2013-2025, Education Minister Fadhlina Sidek said. NSTP/DANIAL SAAD

KUALA LUMPUR: Student enrollment in Science, Technology, Engineering and Mathematics (STEM) subjects among upper-secondary students rose to 50.83 per cent as of this month.

Education Minister Fadhlina Sidek said the increase was from 40.95 per cent recorded in 2021.

The ministry, she said, is consistently working to develop knowledgeable and skilled human capital to engage in the fields of STEM, based on the Malaysian Education Blueprint 2013-2025.

"We have implemented various proactive measures, namely enhancing students' interest through innovative learning approaches and curriculum enhancement, improving the skills and abilities of STEM teachers and raising awareness of STEM among students, parents, and the public.

Figure 4: STEM enrolment hits 50.83% for 2024, up from 41.84% in 2019.
Source: New Straits Times (27 June 2024)

Although the Economic Planning Unit (EPU) set goals in the 12th Malaysia Plan (2021-2025) to increase female labor force participation to 59% and achieve 30% representation of women in key decision-making positions, these targets have yet to be fully realized.

As of 2023, DOSM data shows that the labor force participation rate has remained consistent over the past five years, with 83% of men and 56.5% of women in the workforce as shown in Figure 5. The primary reasons for women remaining outside the labor force are still

housework and family responsibilities (42.6%), followed by schooling and training (41.2%), as shown by DOSM (2023) as shown in Figure 6.

According to the DOSM, women in Malaysia earn RM66 for every RM100 earned by men, despite having similar qualifications, experience, and job titles. On average, men earn RM63,117 annually, while women earn RM42,080, highlighting a significant wage gap, particularly due to limited access to higher-paying jobs for women (DOSM, 2023). This gap has persisted despite improvements in female

labor force participation and wage growth, which have largely occurred in lower-paying sectors. The Gender Pay Gap has widened by 4% post-pandemic, further underscoring the inequity in wages.

Additionally, women represent only 35% of the workforce in the digital economy, and a large portion of women remain in lower-skilled jobs,

particularly within the gig economy. Notably, there is currently no legal mandate for equal remuneration for work of equal value in Malaysia.

While progress continues, these statistics highlight the challenges in increasing female labor force participation and advancing gender representation in leadership roles.

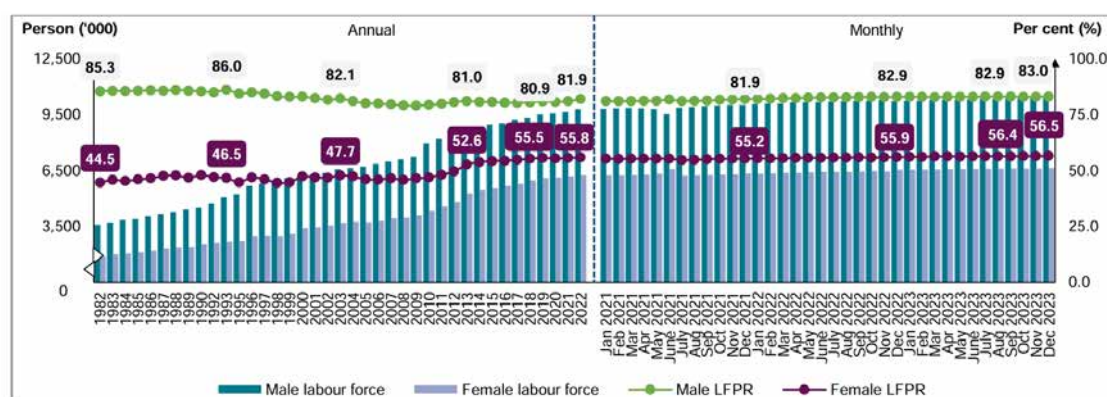


Figure 5: Labour force participation by gender in Malaysia. Source: DOSM (2023)

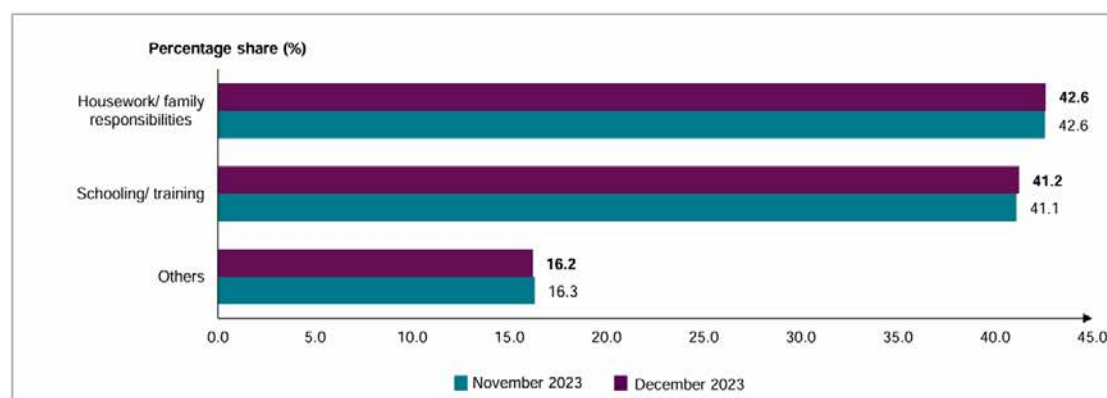


Figure 6: Share of outside labour force by reasons for not seeking work, November 2023 and December 2023. Source: DOSM (2023)

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2. Activities of your organization including best practice of networking women in STEM

As of September 2024, Women Engineers Section of the Institution of Engineers, Malaysia (IEM) has conducted 16 activities including best practice of networking women in STEM as follows:

- a)** Webinar on "Charting the Pathway Towards Women Inclusivity in the Workplace" on 19th January 2024
- b)** Webinar on "The Secret of Being a Successful Women in Green Energy Industry" on 29th January 2024
- c)** Webinar on "Empowering Women in the Engineering World: A Blueprint for Sustainable Success" on 26th February 2024
- d)** Forum on Women in Engineering - Is Malaysia Doing Enough to Provide an Inclusive Environment? (In conjunction with World Engineering Day Celebration from 4th March till 9th March 2024) on 2nd March 2024
- e)** CSR programme at Asrama Darul Falah PERKIM (ASDAF): DIY Solar Car on 30 March 2024
- f)** Webinar Talk On "Envisioning Smart and Sustainable Urban Futures: The Role of Malaysia's Built Environment Professionals" on 6th April 2024
- g)** Technical Visit to Istana Kehakiman Putrajaya - "Up, Close & Personal With Chief Justice Of Malaysia" (Mahkamah Persekutuan Malaysia, Putrajaya) on 29th April 2024

h) Talk on "The Journey from Lab to Market: Innovation and Commercial Leadership of TheEnterprising Engineer" on 10th May 2024

i) CSR programme at Asrama Darul Falah PERKIM (ASDAF): Urban Explorer – Unveiling Civil Engineering Wonders on 11 May 2024

j) Technical Visits to Port Tanjung Pelepas & Lembaga Pelabuhan Johor (Sites: Port of Tanjung Pelepas & Lembaga Pelabuhan Johor) on 18th -19th May 2024

k) The 23rd WE-AFEO Mid Term at Singapore on 11-13 July 2024

l) Webinar on "Understanding 5G Technology" on 19th July 2024

m) 11th Women Engineers Section, IEM Annual General Meeting on 27th July 2024

n) Program MakeCode Arcade Challenge "Minggu Sains Negara" 2024 for secondary school students on 14th and 21st August 2024.

o) CSR programme series at Asrama Darul Falah PERKIM (ASDAF): Water Wisdom, Mastering Conservation at ASDAF on 3rd August 2024

p) WE IEM Conference 2024 - ESG: Leveraging Global Talents and Diversity on 21st September2024

q) IEM -WE Women Summit at CAFEO42, Sabah, Malaysia on 22-24 October 2024 (planned)

r) IEM Bowling Tournament on 30th November 2024 (planned)

3. Suggestion for future network in your country or all over the world (Please make suggestions for building a better network among women in STEM in your country, in Asia and the Pacific and/ or worldwide) The suggestions for future network in Malaysia include:

- a)** Establishment of a Women in STEM Network focused on connecting and supporting women in STEM fields that serves as a platform for women to share experiences, collaborate on projects, and provide mentorship and guidance to aspiring women in STEM.

b) Organisation of regular networking events, seminars, workshops, and conferences specifically designed for women in STEM to bring together professionals, researchers, academics, and students in fostering connections, sharing knowledge, and inspiring each other.

c) Establishment of mentoring programmes to mentor and guide early-career STEM professionals or students to help foster relationships, provide guidance, and offer valuable insights for career advancement.

d) Creation of online platforms, such as websites, forums, or social media groups to facilitate networking and communication among women in STEM via resources sharing, challenges discussion, and like-minded individuals' connection across the country. **e)** Collaboration with educational institutions, namely universities, colleges, and technical institutes to establish partnerships that support women in STEM through joint events, internships, scholarships, or providing guest lecturers and role models to inspire and guide students.

f) Industry partnerships with industry organisations, technology companies, research institutions, and government agencies to create opportunities for women in STEM through

industry mentorship programs, internships, and collaborations on research and development projects.

g) Outreach programmes targetting school students, particularly girls, to create awareness and interest in STEM fields through workshops, science fairs, and mentoring initiatives to encourage girls to pursue STEM education and careers.

h) Leadership development programmes tailored for women in STEM that focus on enhancing

leadership skills, empowering women to take on managerial roles, and breaking barriers for career progression.

i) Advocacy and policy initiatives for gender equality and inclusivity in STEM through the engagement with policymakers, industry leaders, and organisations to promote policies that support women in STEM and foster an inclusive work environment.

j) Research and collaboration opportunities among women in STEM fields to encourage interdisciplinary research projects and collaborations to foster innovation and knowledge exchange.

4. Detailed information of members (Session 2023/2024)

Ir. Assoc. Prof. Dr Syuhaida binti Ismail	Chairperson	syuhaida_ismail@yahoo.com
Ir. Mah Siew Kien	Vice Chair 1	mahsiewkien@gmail.com
Ir. Rusnida bt Talib	Vice Chair 2	eydatalib@yahoo.com
Datin Seri Ir. Nor Asiah bt. Othman	Hon Treasurer	norothman16@yahoo.com
Ir. Nur Azhani binti Mohamad Rosli	Hon Secretary	azhanin@yahoo.com
Ms. Sakinah binti AB Halim	Committee Member	sakinah2804@gmail.com
Ms. Michelle Lau Chui Chui	Committee Member	michelle@mach3engineering.com
Ms. Ainarull Assikin Abdul Hadi	Committee Member	ainahadii@gmail.com
Ms. Nur Syafika Artika Rahim	Committee Member	nursyafikaartika@yahoo.com.my
Ir. Assoc. Prof. Dr. Che Maznah	Committee Member	chemaznah_65@yahoo.com
Ir. Norulhakima binti Zakaria	Committee Member	norulhakimazakaria@yahoo.com,
Ir. Prof. Dr. Zuhaina binti Zakaria	Appointed Corporate Member	zuhaina@gmail.com
Ir. Raftah Mahfar	Appointed Corporate Member	raftah93@gmail.com
Ir. Sharifah Azlina Bt. Raja Kamal Pasmah	Appointed Corporate Member	azlina@hss.com.my

Ir. Dr. Jeyanthi Ramasamy	Appointed Corporate Member	jeyanthi5777@gmail.com
Ir. Tan Loo Yen	Appointed Corporate Member	
Ir. Noorfaizah Hamzah	Immediate Past Chairman	noorfaizah1209@gmail.com
Ms. Choong Pooi Ying	Observer	choongpooiying@gmail.com
Ms. Irene, Lock Sow Mei	Observer	irene.sowmei@gmail.com
Dr. Habibah @ Norehan Bt. Haji Haron	Observer	habibahharon.kl@utm.my
Ir. Sumathi A/P Subramaniam	Observer	sumathi6780@gmail.com
Assoc. Prof. Dr. Nurharniza Abdul Rahman	Observer	nurhaniza.rahman@newinti.edu.my



International Network of Women
Engineers and Scientists



HỘI NỮ TRÍ THỨC VIỆT NAM

2024 INWES APNN CONFERENCE

“The Role of Women in Science & Technology and International Integration
for Sustainable Development”

Siew Kien MAH
The Institution of Engineers Malaysia

October 4th - 5th 2024
HA NOI, VIET NAM






International Network of Women
Engineers and Scientists

INWES APNN 2024



The Institution of Engineers, Malaysia



INWES APNN Report of Malaysia



Ir. Ts. Mah Siew Kien
Vice Chair I
Women Engineers Section, The Institution of Engineers, Malaysia (IEM)
mahsiewkien@gmail.com



International Network of Women
Engineers and Scientists



Rapporteur's Resume

Ir. Ts. Mah Siew Kien holds a BEng and MSc in Electrical, Electronic, and Systems Engineering from Universiti Kebangsaan Malaysia (UKM). She is a Professional Engineer with a Practising Certificate from the Board of Engineers Malaysia (BEM) and currently serves as the Vice Chairman I of the Women Engineers Section at The Institution of Engineers Malaysia (IEM). As the CEO of Artec Malaysia, the authorized distributor of STEM educational products from Japan, Siew Kien leads efforts to enhance STEAM education in classrooms by integrating innovative technologies to improve learning outcomes. A passionate advocate for diversity and equity in technology, she also serves as the Microsoft Code Without Barriers Malaysia Ambassador, working to promote inclusivity in the tech sector. Siew Kien is deeply committed to promoting STEM education and empowering women in engineering. Her extensive volunteer work, including roles as a Council Member and Committee Member within IEM, highlights her dedication to community outreach and fostering diversity. Her commitment to STEM education is further underscored by her role as a member of the National STEM Association in Malaysia.

3

IEM Background



NUMBERS/STATISTICS

65 years old
48,314 members
7 years of joining INWES APNN



MAIN ACTIVITIES

- Talks/forums including career talks
- Technical visits
- Invited talks at universities and schools
- Publication of technical papers, journal papers, editorials, write ups, and white papers
- Presentation of technical papers at seminars and conferences
- Competition
- Judging of engineering challenges competition
- Mentorship
- Evaluation of engineering degree programmes at universities/colleges
- Survey related to women engineers



MISSION

- Promote sound professional engineering practice in support of the socio-economic development objectives of the nation.
- Serve the needs and interests of its members and the public and uphold the social standing and image of the engineering profession.
- Contribute towards nation building and shall strive to enhance society's consciousness of science and technology.



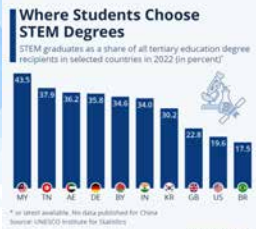
OBJECTIVES

- Hold meetings, exhibitions and visits, and such other activities as The Institution may deem incidental or conducive to the promotion or attainment of the profession of engineering.
- Raise the character and status and advance the interests of the profession of engineering and those engaged therein;
- Promote honourable practice and professional etiquette among members of The Institution;
- Communicate to members information on all matters affecting the profession of engineering and to print, publish, issue and circulate such publications as may seem conducive to any of the objectives of the Institution; and
- Do such other things as the Institution may think incidental or conducive to the attainment of the objectives of The Institution

4

Current Status of Malaysian Women

Figure 1: Percentage of STEM Graduates (UNESCO, 2022)



China produced 4.7 million STEM graduates a year.

Figure 4: Malaysian Gender Gap Index (MGGI) Score (DOSM, 2023)

** provides insights into gender disparities in health, empowerment, and the labour market

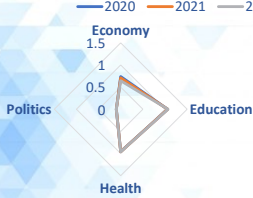
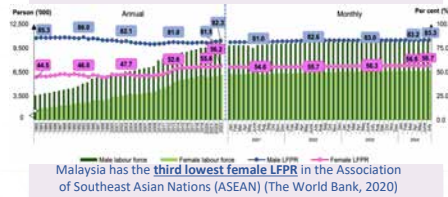
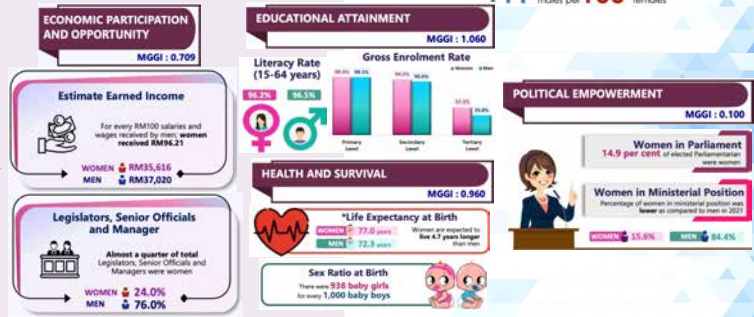
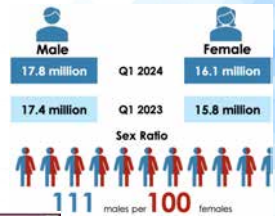


Figure 2: Labour force participation rate (LFPR) by gender in Malaysia (DOSM, 2024)



Malaysia has the **third lowest** female LFPR in the Association of Southeast Asian Nations (ASEAN) (The World Bank, 2020)

Figure 3: Malaysian Gender Ratio (DOSM, 2024)



Current Status of Malaysian Women in STEM

STEM enrollment jumps to 50.83 per cent among upper secondary school students

By Nur Ain Mahamed Razi, Quina Sabudin - June 27, 2024 @ 10:15am



The ministry is consistently working to develop knowledge and skilled human capital to engage in the fields of STEM, based on the Malaysian Education Blueprint 2019-2025. Education Minister Fadhlina Sidek said. NHTP/S/ANAL, SAAD

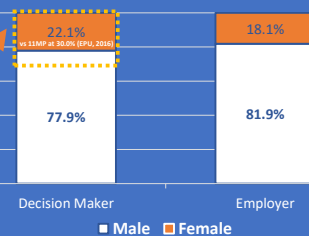
KUALA LUMPUR: Student enrollment in Science, Technology, Engineering and Mathematics (STEM) subjects among upper secondary students rose to 50.83 per cent as of this month.

Education Minister Fadhlina Sidek said the increase was from 40.95 per cent recorded in 2021.

The ministry, she said, is consistently working to develop knowledge and skilled human capital to engage in the fields of STEM, based on the Malaysian Education Blueprint 2019-2025.

"We have implemented various proactive measures, namely enhancing students' interest through innovative learning approaches and curriculum enhancement, improving the skills and abilities of STEM teachers and raising awareness of STEM among students, parents, and the public."

Figure 5: STEM employment among Malaysians in 2022 (UN, 2022)



Malaysia's gender gap in workforce widens despite government push

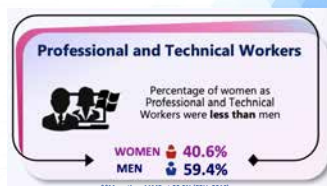
Despite a slight uptick, Malaysia's female labour force participation still lags behind men's, ranking eighth among ASEAN nations.

By Josephine Tan | February 20, 2024

Topics: Compliance | DEI & Malaysia | News

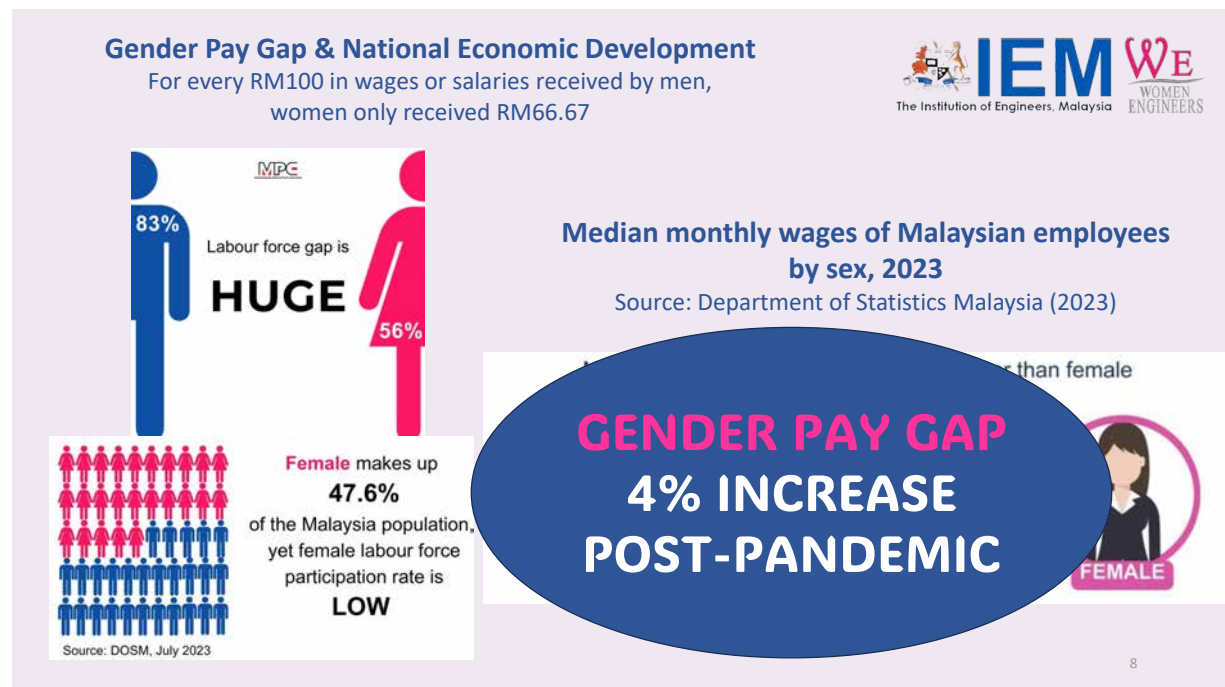
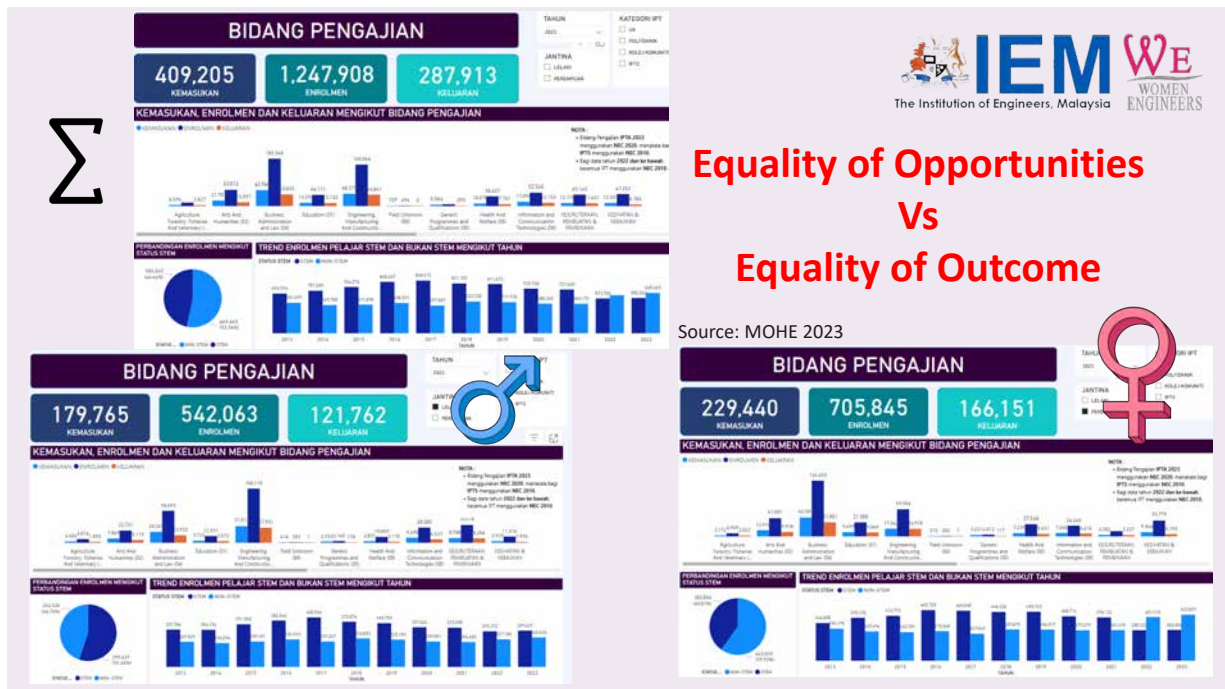



Figure 6: Malaysian Professional and Technical Labour Force Participation Rate (LRPF) (DOSM, 2022)



Majority (41.3%) expect that the Employment Act amendment **reduces women's employability in STEM field** as the **employers would prefer to mitigate the extra costs of hiring non-working female** (Associated Chinese Chambers of Commerce of Malaysia (ACCCIM), 2023)

McKinsey & Company
More women in the STEM workforce could potentially **increase Malaysia's Gross Domestic Products (GDP) by US\$50 billion by 2025**, thus pushing women out could slow or hinder national growth (McKinsey & Company, 2022)






The Institution of Engineers, Malaysia




MINISTRY OF HUMAN RESOURCES GROUP OF COMPANIES

Strengthening, Accelerating and Enhancing Women Talents of Malaysia


TalentCorp's Women Programmes department was established with the vision of increasing and improving women's socio-economic contribution to accelerate Malaysia's economic growth.



WACE	CCP	WIN	ROCK THE SCHOOL
Women Agenda Council Experts (WACE)	Career Comeback Programme (CCP)	Women-Industry Network (WIN)	YES! Rock The School
<p>A think tank comprising 8 Industry and Human Resources (HR) leaders, academia and society leaders to support TalentCorp's women initiatives. It is also a discussion platform to accelerate the progress of the women agenda in Malaysia especially, in enhancing women initiatives to support the Malaysian workforce moving forward.</p>	<p>An initiative through industry collaboration focusing on facilitating, reskilling and upskilling of women who are on career breaks and looking for opportunity to return to the workforce.</p>	<p>Connecting professional women with support network consisting of C-suite women, HR leaders, qualified trainers and individual experts including successful women returnees as mentors, towards enhancing a nurturing culture for women talent.</p>	<p>YES! Rock The School is an initiative aimed at preparing school students for career success. The programme is designed to equip students with the necessary skills and knowledge to make informed career decisions, as well as to help them develop the competencies required to thrive in a rapidly changing job market.</p>



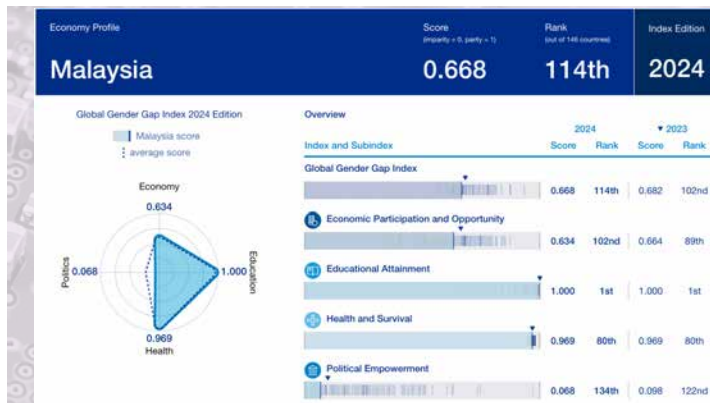
The Institution of Engineers, Malaysia



40% female students enrolled in engineering courses in 2017 from the targeted 60% (ASM, 2018), with only **26% female students graduated** as engineers and only **6% of this group are professional engineers** (BEM, 2018).

While the percentage of women in the workforce in Malaysia stands at **56.7%**, women make up only about **35%** of the digital economy.

9



Eastern Asia and the Pacific

Economy	Rank		Score
	Regional	Global	
New Zealand	1	4	0.835
Australia	2	24	0.780
Philippines	3	25	0.779
Singapore	4	48	0.744
Thailand	5	65	0.720
Viet Nam	6	72	0.715
Mongolia	7	85	0.705
Timor-Leste	8	86	0.704
Lao PDR	9	89	0.700
Republic of Korea	10	94	0.696
Indonesia	11	100	0.686
Cambodia	12	102	0.685
Brunei Darussalam	13	105	0.684
People's Rep. of China	14	106	0.684
Vanuatu	15	111	0.673
Malaysia	16	114	0.668
Japan	17	118	0.663
Fiji	18	128	0.642

Malaysia's Women Empowerment Programmes



Budget 2024: Gov't To Implement Initiatives Encouraging Women To Rejoin Workforce

Photo: Channel 1 / 13 September 2023



KUALA LUMPUR, Oct 13 (Bernama) – The 10th / MAJLIS Budget 2024, will implement several initiatives to encourage women to rejoin the workforce to 60 per cent, which is a benchmark.

Kesuma aims to raise female workforce participation to 60%



PETALING JAYA, The Ministry of Human Resources Development (MHRD), through its agency, Sabah Corporation Malaysia (SabahCorp), aims to increase female participation in the workforce by 60 per cent in line with the MAJLIS (Economic) Framework.



i-Sayang Initiative

Husbands voluntarily transfer 2% of their EPF savings to their wives' accounts monthly to give housewives financial security for their and to provide social protection network for family institutions



Elevation of Women Taking on 30% as Decision-Maker

Women to take on minimum 30% of decision-making roles in government-linked companies (GLCs), government-linked investment companies (GLICs), and Minister of Finance incorporated companies by 2025



RM 1 Million 'Tabung Kasih Rahmah Wanita'

Women's emergency assistance fund helps women in distress or left in vulnerable situations e.g. victims of domestic violence, those neglected or abandoned by spouses and family members etc



New Guidelines for Anti-Sexual Harassment Advocacy Programme

Posting of anti-sexual harassment notices in the premises of every organisation across Malaysia made by the Women, Family and Community Development Ministry



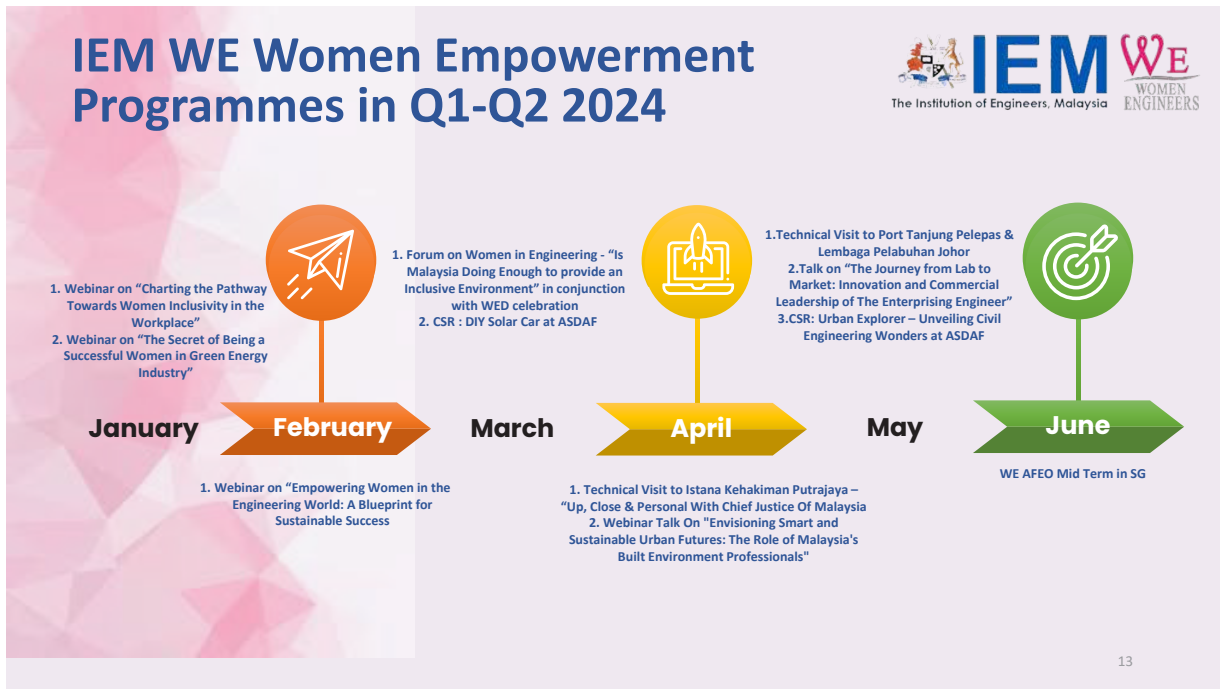
RMS Million for Research on Promotion of Future Women Empowerment Programmes

Allocated to the Women, Family and Community Development Ministry for data collection, research, and promotion of future women empowerment programmes



Malaysia's Anti-Stalking Law Now Operational

Anti-stalking Bill passed unanimously in Parliament. The new Section 507A of the Penal Code marks a pivotal moment in addressing the pressing affair of stalking, reflecting Malaysia's commitment to illustrating a more protected environment for its citizens





2024 APNN COUNTRY REPORT OF WSTEM MONGOLIA

Country:	MONGOLIA	
Organization representing your country	Name:	Women in Science, Technology, Engineering, and Mathematics in Mongolia (WSTEM in Mongolia)
	Address:	Yarmag 18, 5th khoroo, Khan-Uul duureg, Ulaanaabaatar Mongolia
	Website:	http://wstem.mn/index.php/en
	Contact #:	99015671
	No. of Members:	Board members: 21 women Members: 468 women
	Main activities:	<p>Contributing to women's development in the sciences, technology and engineering</p> <ul style="list-style-type: none"> • Support for publishing research and for certifying intellectual property • Support for women's participation in innovation, engineering development, and research • Support for young researchers by organizing training and scholarship programs for them • Recognize and reward the research work of established women scientists <p>Social activities</p> <ul style="list-style-type: none"> • Participate and organize national and international humanitarian activities • Provide professional guidance to youth on the use, features, and importance of science, technology, engineering and mathematics <p>International cooperation in science and technology</p> <ul style="list-style-type: none"> • Exchange of information and support for cooperation with international organizations focused on women in STEM fields • Participate and cooperate in INWES and APNN activities • Collaborate with Mongolian women scientists who live abroad • Collaborate with foreign woman scientists who conduct research and/or reside in Mongolia
	Year Established	
Goals/other information	<p>Mission: To enhance the reputation of Mongolian women in STEM fields nationally and internationally</p> <p>Vision: To be the leading women's organization with advanced action and synergy that contributes to the scientific, engineering, innovation and social and economic development of Mongolia</p> <p>Core Values:</p> <ul style="list-style-type: none"> • Knowledge • Ethics • Unity 	

		Goals: To support the activities of Mongolian women scientists, and to make a significant contribution to the country's development in engineering, technology, and the sciences.
Organizational Representative	Name:	ARIUNBOLOR Purvee
	Role in above organization:	Board member
	Work Affiliation:	National University of Mongolia
	Title:	Lecturer
	Address:	National University of Mongolia
	Contact #:	99015671
	E-mail:	enkhtuulsh@gmail.com
We hope to increase the membership of APNN. Please recommend other women STEM groups, and their contacts, known to you either from your own country or from other Asia Pacific areas, which have not yet joined APNN or which are those newly founded for women in STEM fields		Almost same as the previous year Women in Mining Mongolia (WIM Mongolia) https://www.wimmongolia.org/ Mongolian Auditor Women's Federation (MAWF) https://www.facebook.com/mawf.mn/ Association of Mongolian Women in Korea https://sorkhug.wordpress.com/english/ Women Leaders Foundation www.irgen-tur.mn/en/women-leader-foundation

CONTENT OF AN ANNUAL REPORT

1. Current status in network of women engineers and scientists

Students of universities : In the academic year of 2021-2022, there were total 64 universities, institutions and colleges; 16 (25 %) of them are

state and 45 (70.3 %) of them are private, and 3 (4.7%) are social/religions; and 33 (51.6%) of them are universities, and 30 (46.8%) of them are institutions, 1 (1.6%) of them are college, and , 3 (3.4%) of hem are branch of foreign universities; and 59 (92.2%) of them are located in Ulaanbaatar and 5 (7.8%) of them are located countryside.

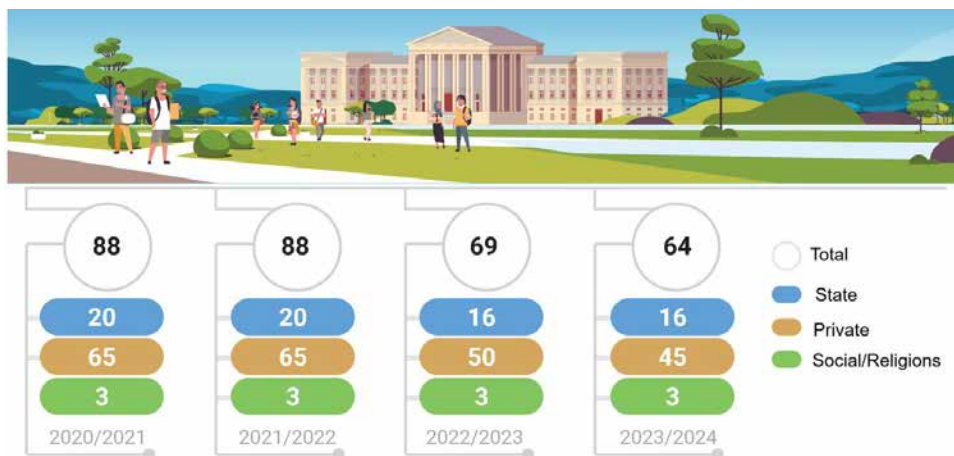


Fig. 1. Type of universities.

In 2023-2024, 145,343 students are currently studying at universities, institutions and colleges in Mongolia; 60% of them are women and 40% men. The number of students did not change compared to last year (Fig 2-Fig 5). These

data suggest that WSTEM in Mongolia has a continuous pool of students in relevant fields with which to interact and from which to draw upon.

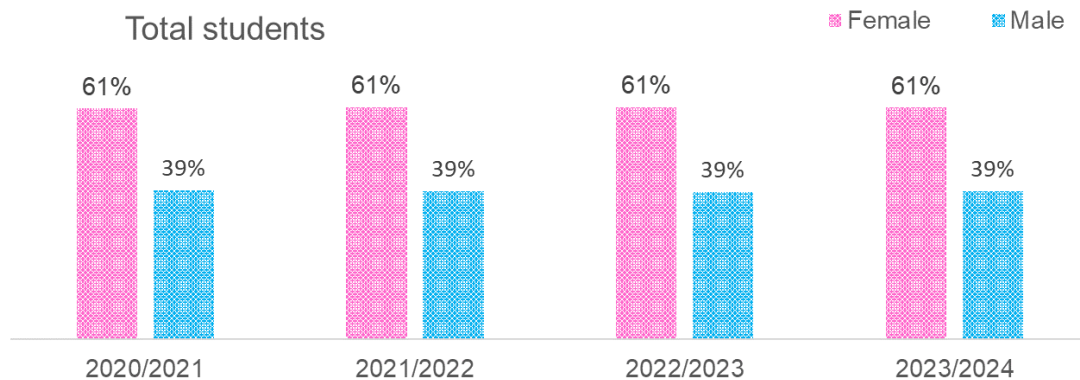


Fig. 2. Total students.

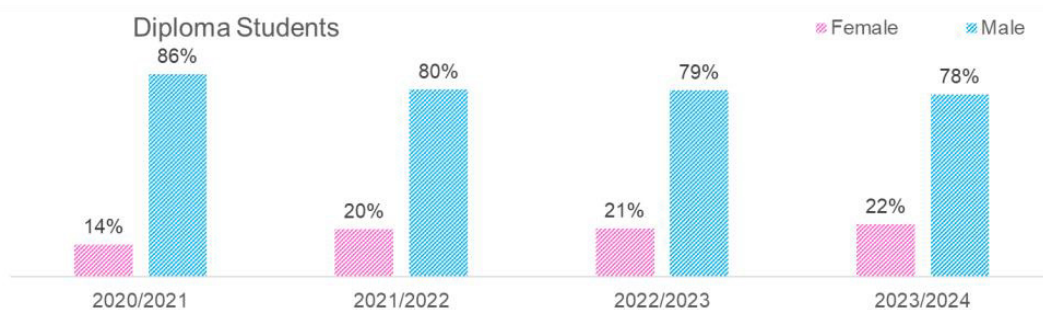


Fig. 3. Diploma students

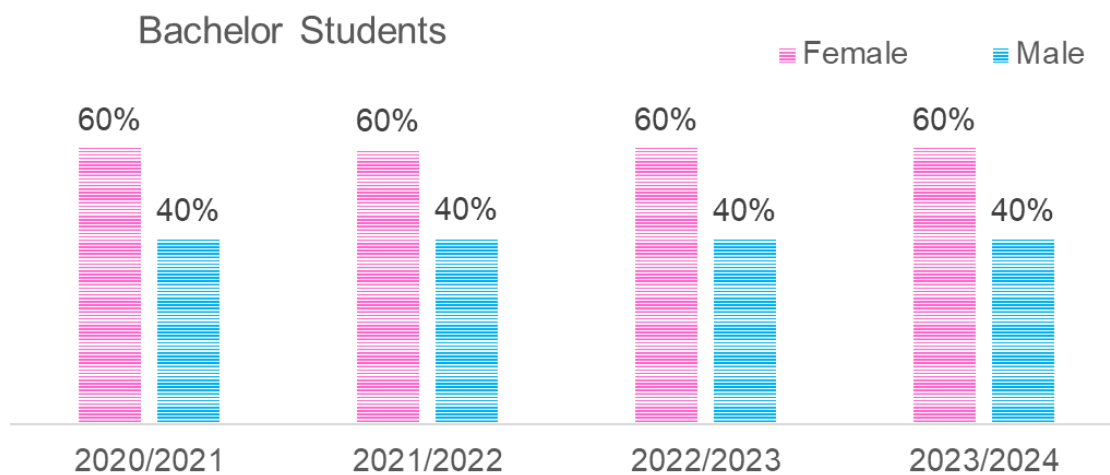


Fig. 4. Bachelor students

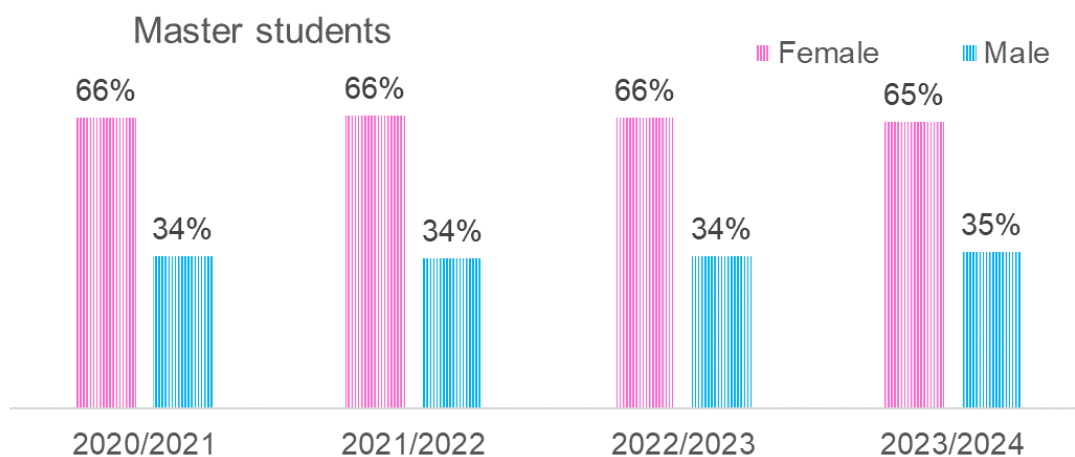


Fig. 5. Master students

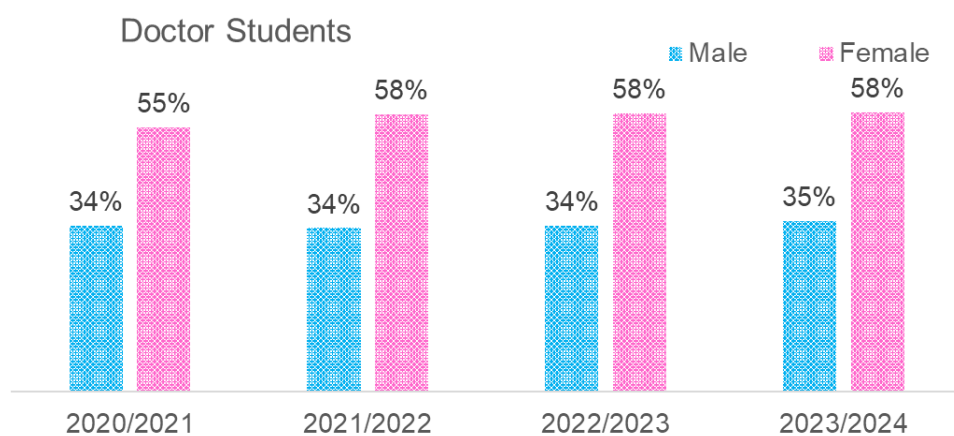


Fig. 6. Doctoral students

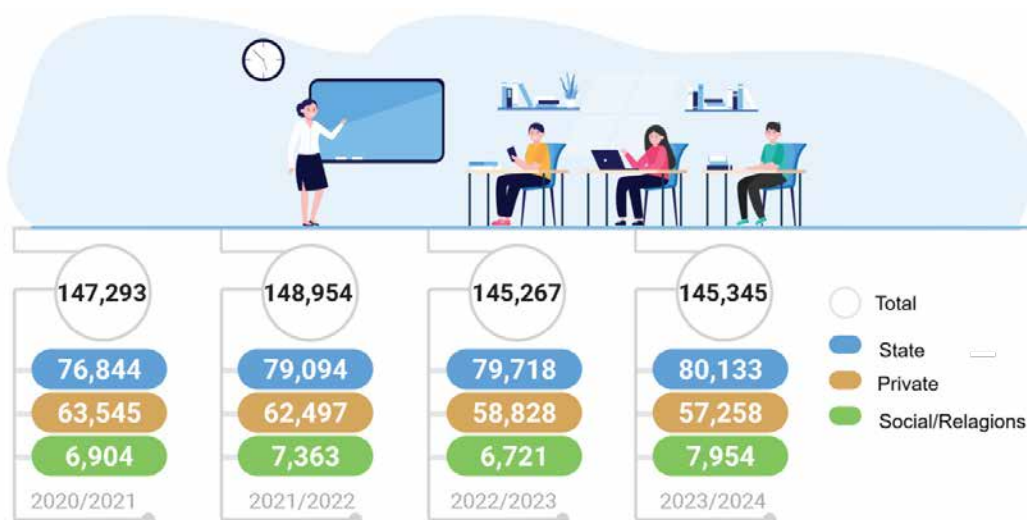


Fig. 7. Students by types of higher education systems

In 2023-2024, 28045 students were graduated at universities, institutions and colleges in Mongolia; 62% of them are women (Fig 2).

Зураг 6.14 Дээд боловсролын сургалтын байгууллагын төгсөгчид, хүйсээр

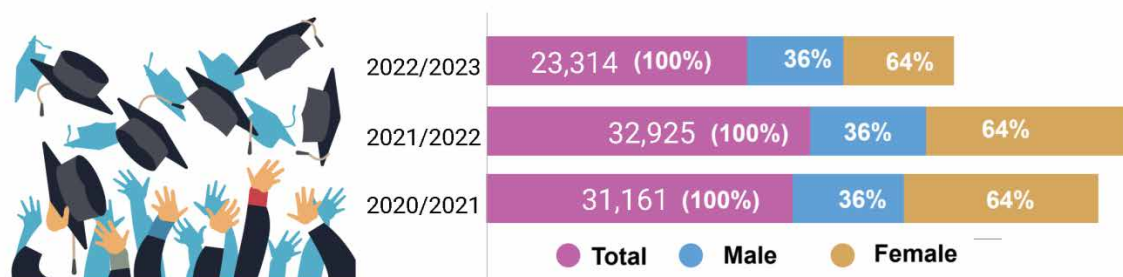


Fig. 8. Total graduations in 2019-2021

Women Students in 2023 by all degrees and field are shown in Fig 8.

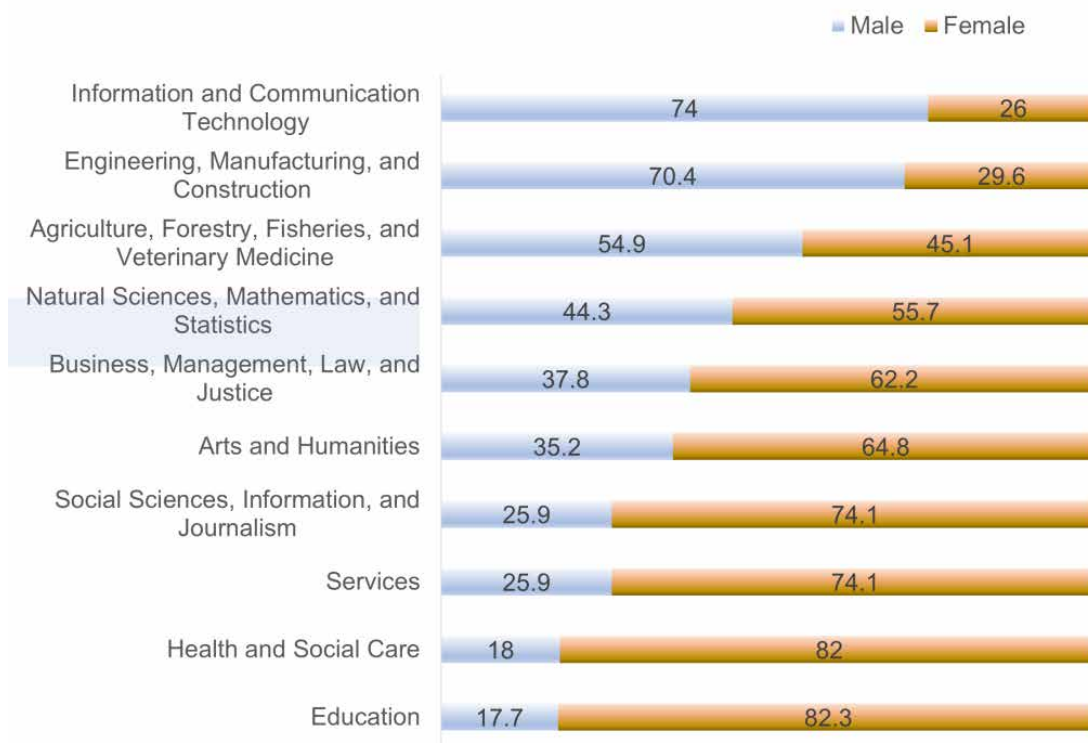


Fig. 9. All degrees and field

Percentage of Mongolian women students in health and medical science and in education are around 82 percent, and engineering, industries and construction is around 29.6 percent during over ten year's period. Women students engineering are getting less. It was 40% in 2011, it was 29.6% in 2021.

Making-decision position: The percentage of Job positions of higher education system had been not changed much compared to over ten years. Fig 4 shows the percentage and number of women faculty, by level, in 2023.

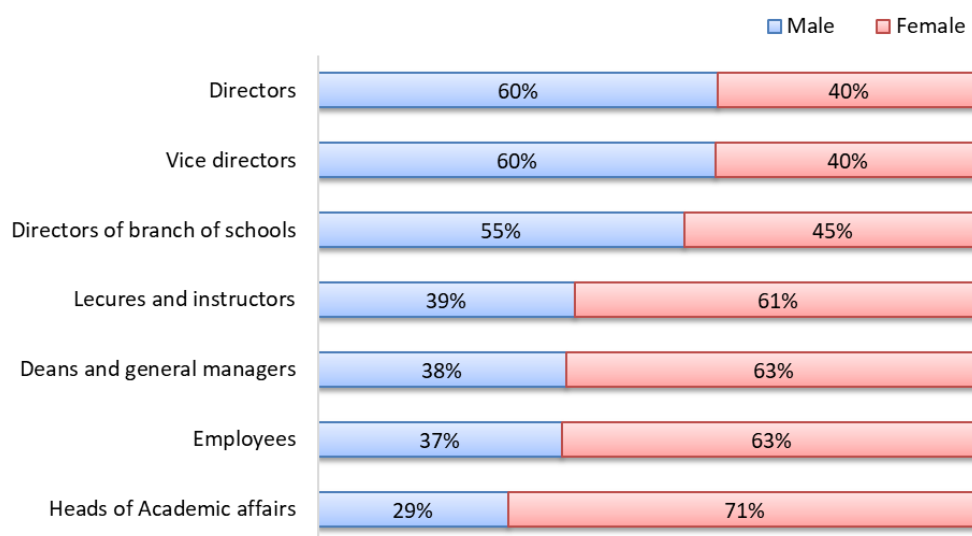


Fig 4. Job positions of higher education system in Mongolia

Less than 40 percentage of decision-making position such as directors and vice directors, and more than 70 percentage of management position such as deans, general managers, and head of academic affairs, more than 60 percentage and employees, lectures and instructions are women.

The percentage of Job positions of higher education system had been not changed much compared to over ten years. Fig 5 shows the percentage and number of women faculty, by level, in 2023.

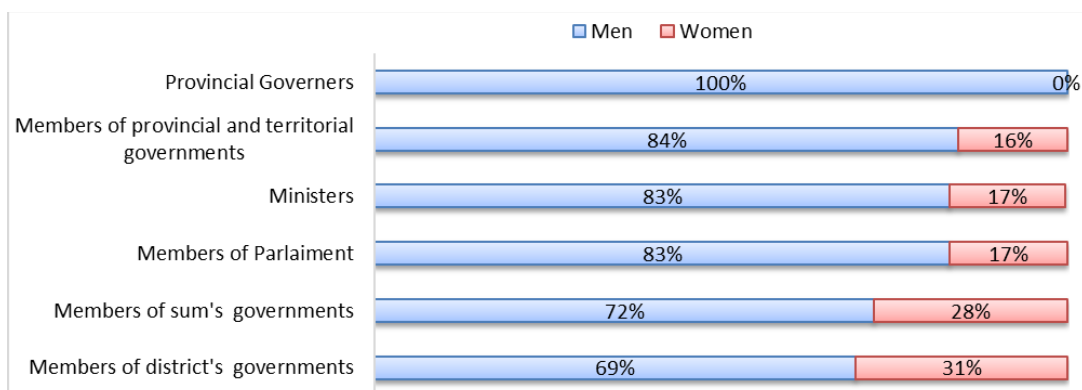


Fig 5. Job positions of higher education system in Mongolia

From 5, we can see that the participation of women in political decision-making is insufficient. As in most other countries, Mongolian women do not hold positions of power and/or decision-making in sectors such as in the government, business leaders, heads of companies, university academic administrators, hospital presidents, etc. It is clear that higher levels of

educational attainment for women are not effectively translating into higher positions or salaries. Women have not held any of the top three political offices at the national or the subnational level. In business and civil service, many women work in middle and entry-level management. Very few have made it to the upper management.

2. Activities of your organization including best practice of networking women in STEM

Board members of WSTEM in Mongolia

As usual, we have 22 board members, and as shown in the graph on the left, approximately 70% hold PhDs. The remaining members are either pursuing a PhD or hold master's degrees. In terms of disciplinary backgrounds, about 30% are engineers, followed by social scientists as the next largest group. The rest come from fields such as business, natural sciences, medical sciences, and agricultural sciences. This diverse range of disciplines enriches our organization.

WSTEM membership in Mongolia continues to grow, with over 600 members currently enrolled. About 30% hold PhD degrees, and 50% have master's degrees. The largest portion of our membership—around 40%—comes from the social sciences, followed by education as the next most represented discipline.

WSTEM has four branches across Mongolia to support women in science throughout the country's vast land area. The largest branch is in the capital city, Ulaanbaatar, accounting for about 60% of our membership. We also have a branch in Erdenet, north of Ulaanbaatar; 20% of our members are from Darkhan, which is relatively close; and about 10% are located east of Ulaanbaatar in Baganaur.

International activities and events

1. The International Conference of Women in Science, Technology, Engineering, and Mathematics (ICWSTEM), held in conjunction with the 13th Annual Meeting of the Asia Pacific Nation Network (APNN) of the International Network of Women Engineers and Scientists (INWES), took place from June 29 to July 1, 2023. The 2023 INWES-APNN-ICWSTEM Conference focused on five key sectors, aligned with the 17 Global Sustainable Development Goals (SDGs).

More than 100 representatives from 18 countries participated in this three-day international conference. Among the APNN member countries, 10 delivered presentations online, 7 participated in person, and 45 presentations were specifically

discussed at the ICWSTEM conference.

2. Another international activities are the International Young Woman Scientist Camp. The WSTEM sent two young scientists every year before Covid period and participated online it. In this year, WSTEM paid the airplane's price and KWSE paid for the two young scientists.

National activities and events

The eighth Annual General Meeting, titled 'WOMAN - Science and Technology: Women in STEM in Mongolia,' was held on December 2, 2023, in Ulaanbaatar, Mongolia, with over 50 participants in attendance.

Conference for Young women engineers and researchers Organized by the Baganaur branch of WSTEM December 8, 2024 in Baganaur, Mongolia.

The Conference for Young Women Engineers and Researchers, organized by the Baganaur branch of WSTEM took place on December 8, 2024, in Baganaur, Mongolia.

The WSTEM members raised funds to help herders overcome the heavy snowfall.

The training sessions on "Usage and Conservation of Renewable Energy" and "The Effect of Nutrients on the Teens" were held at the following locations: Polytechnic College in Orkhon Province, Jargalant sum in Orkhon Province, Baganaur city, Darkhan city.

A competition titled 'In Search of New Ideas Against Air Pollution in Ulaanbaatar' was organized among students from Vocational Education Schools, Polytechnic Colleges, and high schools in Ulaanbaatar to encourage innovative ideas and optimal solutions for reducing air pollution in the city.

The international scientific conference on 'Climate Change and Sustainable Soil Management' was held in Darkhan on April 1, 2042.

Board of Directors of WSTEM in Mongolia now includes two members of the Parliament of Mongolia.


3. Suggestion for future network in your country or all over the world (Please make suggestions for building a better network among women in STEM in your country, in Asia and the Pacific and/or worldwide)

4. Detailed information of members:

Surname	Given name	Phone	Email
Jambal	Tuyatsetseg	91915451	tuyatsetsegjambal@gmail.com
Purvee	Ariunbolor	99015671	ariunbolor976@gmail.com
Chinbat	Undram	99119689	undrammuis@gmail.com
Baatar	Battsengel	99036975	battsengel@gmit.edu.mn
Bat-Ochir	Enkhmaa	99117530	ochirmedicalcenter@gmail.com
Dechin	Gantsetseg	99041094	gantsetseg6464@gmail.com
Nadmid	Suvdaa	99048885	suvdaa@humanities.mn
Puntsagnamjil	Mend-Amgalan	99524440	mendee.p@sab.edu.mn
Chimedravdan	Naranchimeg	99086564	naranchimeg.ch@ufe.edu.mn
Dorjsuren	Uuriintuya	99351306	uureedo5@gmail.com
Tumurbaatar	Khishigdulam	99177475	tsegyt@gmail.com
Tserendash	Enkhchimeg	99190559	enkhee@icon.mn
Huramkhaan	Manchuk	99013818	manchuk.nu@gmail.com
Bolormaa	Erdenebolor	91110666	erdenebolormgl11@gmail.com
Altansuvd	Zagdsuen	99011996	zaagaa@gmail.com
Nyamtseren	Tsenkherkhelen	99845828	hekiokff@gmail.com
Turmunk	Yaruunaa	96069601	yaruunaa@gmit.edu.mn
Nansal	Uyanga	99005712	uyangad2001@yahoo.com
Gendensuren	Bolormaa		boloroomgl@gmail.com
Nergui	Sugar	94112596	n_sugar@must.edu.mn



International Network of Women
Engineers and Scientists




HỘI NỮ TRÍ THỨC VIỆT NAM

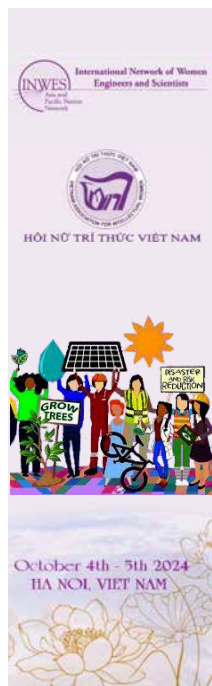
2024 INWES APNN CONFERENCE

“The Role of Women in Science & Technology and International Integration
for Sustainable Development”

COUNTRY REPORT OF MONGOLIA 2024

October 4th - 5th 2024
HA NOI, VIET NAM





Agenda Country Report

01	Brief Introduction of Mongolia
02	Some Statistics about Higher Education in Mongolia
03	Scientific Careers in Mongolia
04	WSTEM in Mongolia Background
05	WSTEM in Mongolia Activities – 2023-2024 International Conference APNN 2023

Brief Introduction of Mongolia

Population
The current population of Mongolia is about **3.5** million. The Growth Rate is **1.3%**. Sex ratio **0.97** (**49% men** and **51% women**)

Land Area
The total Land Area of Mongolia is **1,553,556 sq.km** (599,831 sq. mi) & the Population Density of Mongolia is **2 per Km2** (5 people per mi2).

Demographics
The official language of the country is Mongolian, which is spoken by approximately **95%** of the population. The population of the country as a whole is relatively young, with the average age being **27.3 years**.

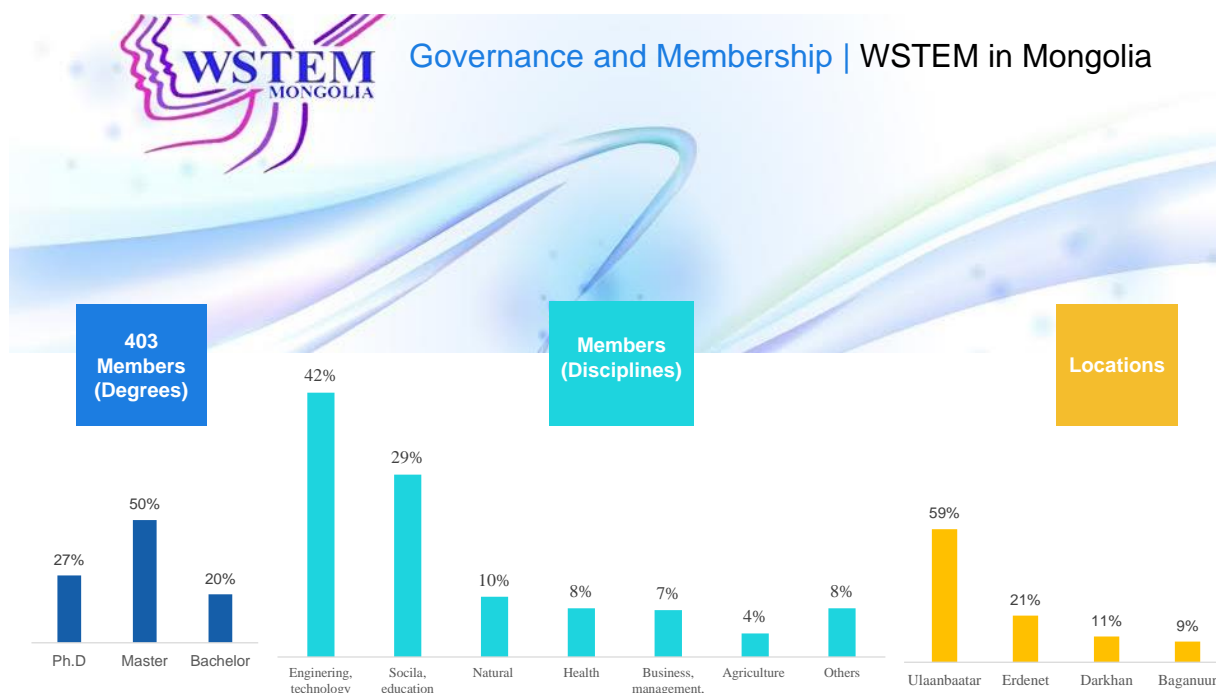
Literacy of population
99.2% of adult population in Mongolia are able to read and write.

Introduction of WSTEM in Mongolia

MISSION

Mongolian WSTEM aims to contribute to women's development, engineering education, and visibility in Mongolia. We accomplish this by increasing the participation of women scientists, technologists and engineers in the formulation, decision-making, and implementation of relevant policies in Mongolia.





Introduction of WSTEM in Mongolia

MAIN ACTIVITIES

1

Contributing to women's development in the sciences, technology and engineering

- Support for publishing research and for certifying intellectual property
- Support for women's participation in innovation, engineering development, and research
- Support for young researchers by organizing training and scholarship programs for them
- Recognize and reward the research work of established women scientists

2

Social activities

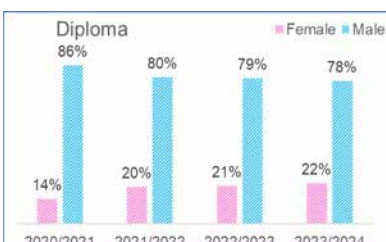
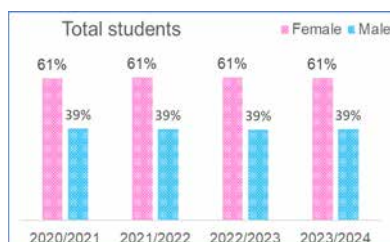
- Participate and organize national and international humanitarian activities
- Provide professional guidance to youth on the use, features, and importance of science, technology, engineering and mathematics

3

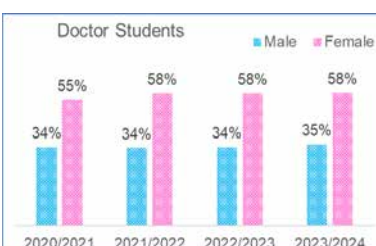
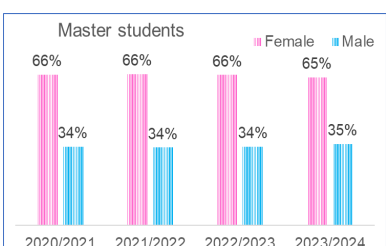
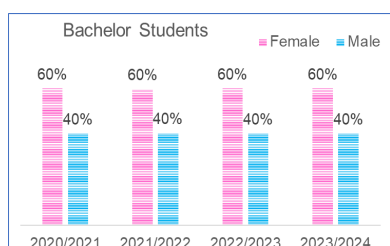
International cooperation in science and technology

- Exchange of information and support for cooperation with international organizations focused on women in STEM fields
- Participate and cooperate in INWES and APNN activities
- Collaborate with Mongolian women scientists who live abroad
- Collaborate with foreign woman scientists who conduct research and/or reside in Mongolia.

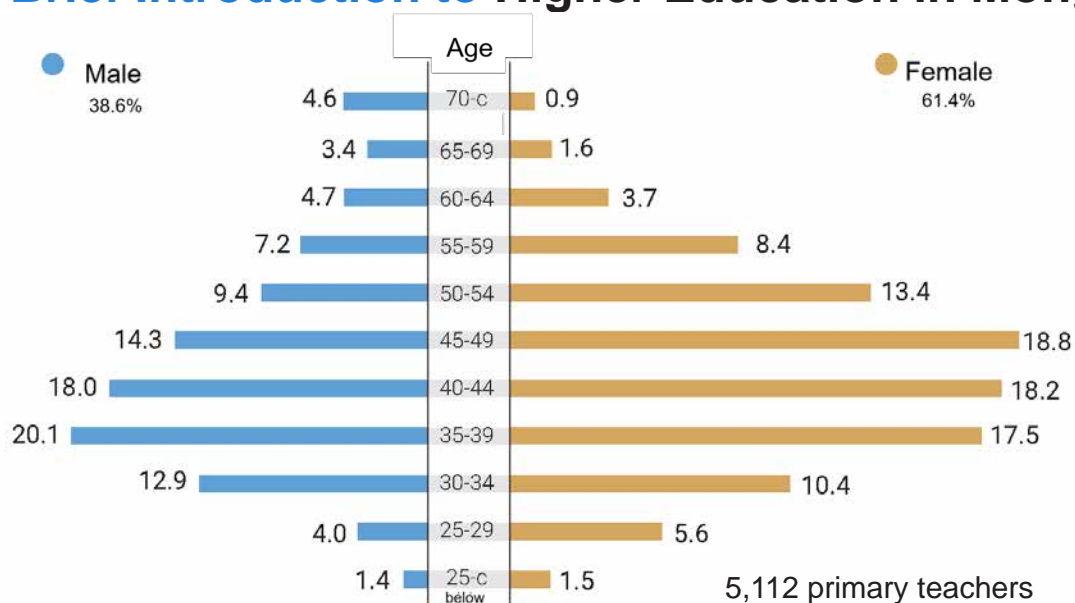
Brief Introduction to Higher Education in Mongolia



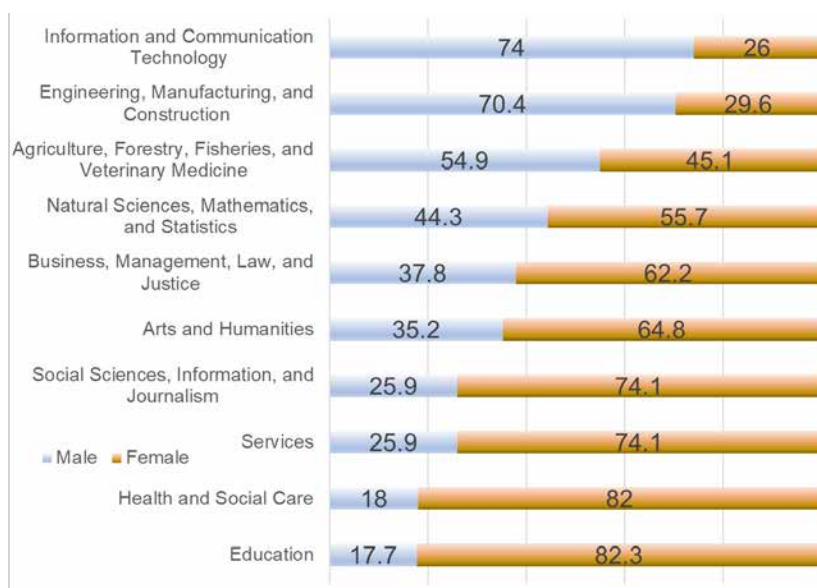
If we look at the statistics from the last five years, the gender ratio among students hasn't changed. However, there has been a slight shift in the gender ratio among diploma students.



Brief Introduction to Higher Education in Mongolia



Brief Introduction to Higher Education in Mongolia

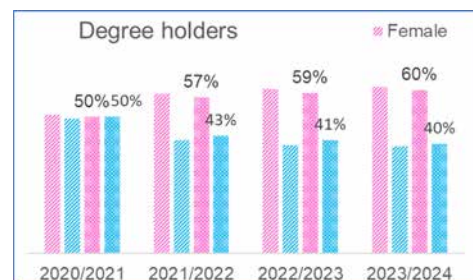
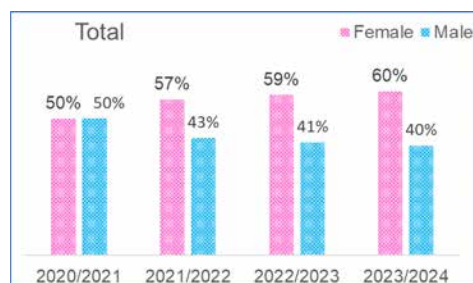


In the 2023-2024 academic year, 27.3 % of students are enrolled in business, management, law, and justice, while 1.6% are studying agriculture, forestry, fisheries, and veterinary medicine.

Brief Introduction to Science & Technology in Mongolia



In 2023, a total of 6,880 people will be employed in the science and technology sector, of which 59.9% are women. Of all employees, 86.9% work full-time, 78.6% are researchers, and 32.2% of the researchers are academic staff.





The International Conference of Women in Science, Technology, Engineering, and Mathematics (ICWSTEM), held in conjunction with the 13th Annual Meeting of the Asia Pacific Nation Network (APNN) of the International Network of Women Engineers and Scientists (INWES), took place from June 29 to July 1, 2023. The 2023 INWES-APNN-ICWSTEM Conference focused on five key sectors, aligned with the 17 Global Sustainable Development Goals (SDGs).

More than 100 representatives from 18 countries participated in this three-day international conference. Among the APNN member countries, 10 delivered presentations online, 7 participated in person, and 45 presentations were specifically discussed at the ICWSTEM conference.





APNN Chair Country Handover Ceremony

APNN Chair Countries

KWSE (Korea) 2012-2014
 JNWES (Japan) 2015-2017
 TWIST (Taiwan) 2018-2020
 WSTEM (Mongolia) 2021-2023
 PTC WEN (Philippine) 2024-2026





International Activities of WSTEM in Mongolia



Conference
giveaways

Sponsored
organizations

ICWSTEM), held in
conjunction with the
13th INWES took pl
ace from June 29 to
July 1, 2023.



International Activities of WSTEM in Mongolia



2024 International Young Woman Scientist Camp

Date: August 13, 2024
Venue: IBS Science Culture Center, Daejeon, Korea



International Activities of WSTEM in Mongolia



2024 International Young Woman Scientist Camp

Date: August 13, 2024
Venue: IBS Science Culture Center, Daejeon, Korea

TO KWSE:
Thank you very much for organizing the YWS Camp and paying accommodations and foods.



National Activities of WSTEM in Mongolia



The eighth Annual General Meeting “WOMAN- Science and Technology” Women in STEM in Mongolia

December 2, 2023 in
Ulaanbaatar, Mongolia



National Activities of WSTEM in Mongolia



National Activities of WSTEM in Mongolia



Conference for Young
women engineers and
researchers

Organized by the
Baganuur branch of
WSTEM

December 8, 2024 in
Baganuur, Mongolia



National Activities of WSTEM in Mongolia



DONATION FOR
HERDERS IN THE WINTER,
FEBFUARY, 2024



National Activities of WSTEM in Mongolia



The training sessions on "Usage and Conservation of Renewable Energy" and "The Effect of Nutrients on the Teens" were held at the following locations:

Polytechnic College in Orkhon Province.

Jargalant sum in Orkhon Province.



National Activities of WSTEM in Mongolia



The training sessions on "Usage and Conservation of Renewable Energy" and "The Effect of Nutrients on the Teens" were held at the following locations:

Baganuur city.

Darkhan city.



National Activities of WSTEM in Mongolia



A competition titled 'In Search of New Ideas Against Air Pollution in Ulaanbaatar' was organized among students from Vocational Education Schools, Polytechnic Colleges, and high schools in Ulaanbaatar to encourage innovative ideas and optimal solutions for reducing air pollution in the city.



National Activities of WSTEM in Mongolia



The international scientific conference on 'Climate Change and Sustainable Soil Management' was held in Darkhan on April 1, 2022.



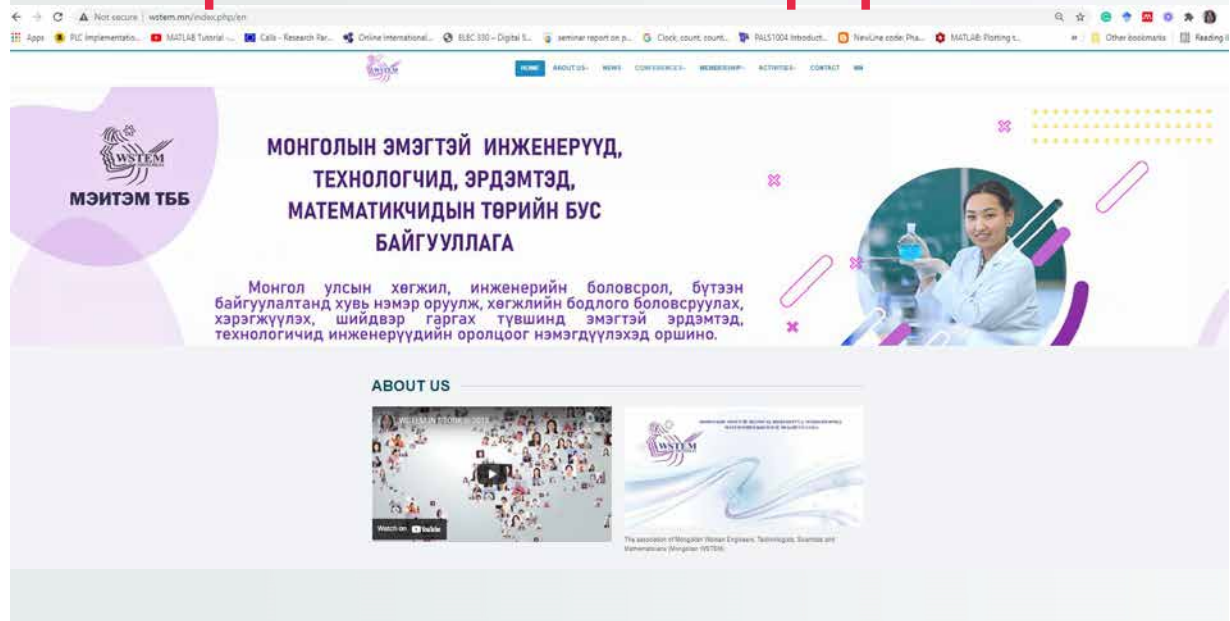
National Activities of WSTEM in Mongolia



the Board of Directors of WSTEM in Mongolia now includes two members of the Parliament of Mongolia.



<http://wstem.mn/index.php/en>



Thank You!

2024 APNN COUNTRY REPORT OF MYANMAR

Country:	MYANMAR	
Organization representing your country	Name:	WOMEN ENGINEERS CHAPTER, FEDERATION OF MYANMAR ENGINEERING SOCIETIES (Fed.MES-WE)
	Address:	Fed.MES Building, Hlaing Universities' Campus, Hlaing Township, Thamine College St, Yangon, Myanmar
	Website:	https://www.mes.org.mm/women-engineers-chapter
	Contact #:	+951519854
	No. of Members:	150
	Main activities:	<ul style="list-style-type: none"> ▪ Technical Seminars ▪ Community Seminar/ Knowledge Sharing ▪ Trainings ▪ Technical Project Competition for engineering students ▪ Community activities ▪ Donation for Needs ▪ National Conference/ International Summit
	Years with joining with INWES APNN member organization as a member	6
Organizational Representative	Goals/other information	<p>Mission: To build a large network connecting women engineers, to embrace and deliver the results of living on purpose based on courage and joy</p> <p>Vision:</p> <ul style="list-style-type: none"> • To encourage women engineers to remain in the engineering practice • To support the professional development for women engineers • To encourage and celebrate achievements of women engineers and ultimately leaders • To profile inspirational women engineers of exemplary model inspiring next generation
	Name:	Dr. Khin Sandar Tun
	Role in above organization:	Advisor
	Work Affiliation:	Electronic Engineering
	Title:	Professional Engineer
	Address:	Nyaung Tone Street, Sanchaung Township, Yangon, Myanmar
	Contact #:	+9595000735
	E-mail:	khinsandartun91@gmail.com meswe.ygn@gmail.com

CONTENT OF AN ANNUAL REPORT

1. Current status in network of women engineers and scientists

Political change has taken place in Myanmar since February 2021. The typhoon Yagi destroyed a lot of areas in Myanmar in September 2024. Due to our country's situation we cannot able to collect the actual statistics of women engineers and scientists at this moment.

2. Activities of your organization including best practice of networking women in STEM

Fed.MES-WE hold the hybrid meetings and our members attended the international conferences. The chair of Fed.MES-WE attended the 19th International Conference of Women Engineers and Scientists (ICWES19) and INWES

Annual General Meeting (AGM) via online in September 2023. The members of Fed.MES-WE attended WFEO meetings and WEC 2023 in October 2023. The delegation of Fed.MES-WE attended CAFEO41 in November 2023. The members of Fed.MES-WE attended the AFEO 23rd midterm meeting in July 2024. The members of Fed.MES-WE participated in the event of World Engineering Day in Myanmar.

3. Suggestion for future network in your country or all over the world

When the country's situation is stable, we will improve the networking among women in STEM in our country. Then Fed.MES-WE will support and encourage the members to participate in Asia and the Pacific and worldwide

4. Detailed information of members

SN	Name	Work/ Research area	Affiliation	Email or Social media
1	Engr. Si Than	Civil Engineering	Fed.MES-WE Patron	
2	Dr. Naw Mu Mu Aye	Textile Engineering	Fed.MES-WE Patron	
3	Engr. Victoria Simon	Metallurgy Engineering	Fed.MES-WE Patron	
4	Engr. Hla Oo Nwe	Civil Engineering	Fed.MES-WE Joint Advisor	hoonwe@gmail.com
5	Dr. Oo Oo Khin	Textile Engineering	Fed.MES-WE Advisor	ooookhin59@gmail.com
6	Dr. Khin Sandar Tun	Electronic Engineering	Fed.MES-WE Advisor	khinsandartun91@gmail.com WhatsApp: +9595000735
7	Engr. Kyi Kyi Pyone	Mechanical Engineering	Fed.MES-WE Advisor	kkp.mech@gmail.com
8	Engr. Htay Htay Win	Civil Engineering	Fed.MES-WE Chairman	htayhtaywin11@gmail.com
9	Engr. Mya Mya Win	Civil Engineering	Fed.MES-WE Deputy Chairman	myamyawin1960@gmail.com
10	Engr. Yin Yin Mya	Electrical Engineering	Fed.MES-WE Secretary	tkhinell@googlemail.com
10	Dr. Pwint Thandar Kyaw Kyaw	Civil Engineering	Fed.MES-WE Joint Secretary	pwinththandarkyawkyaw@gmail.com

INWES APNN 2024

INWES APNN Report of MYANMAR

Dr. Khin Sandar Tun
Advisor
Fed.MES-WE

Hanoi, Vietnam
October 4-5, 2024



Overview of Myanmar

Area :	676,578 Km ²
Population :	55.273 Million
Total GDP :	USD 64.82 Billion (2023)
GDP/capita -	USD 1168.69 (2023)
Exchange Rate (13/9/2024) :	1USD = 2,100 Kyats

Source:

Myanmar GDP | 2023 Data | 2024 Forecast | 1998-2020 Historical | Chart | News
(tradingeconomics.com)

October 4-5, 2024, VIETNAM



WOMEN ENGINEERS CHAPTER (Fed.MES-WE)



- Established on 2nd April 2013.
- Formed by a group of women engineers from Technological Universities, the public sector and the private sector.
- Supporting the academic and professional careers of women engineers to help them become effective and up-to-date and to help them coordinate with other women engineer organizations around the world.
- Fed.MES-WE website Link:
<http://www.mes.org.mm/women-engineers-chapter>
- 6 Years with joining with INWES as a member

3

October 4-5, 2024, VIETNAM

Vision



- To encourage women engineers to remain in the engineering practice
- To support the professional development for women engineers
- To encourage and celebrate achievements of women engineers and ultimately leaders
- To profile inspirational women engineers of exemplary model inspiring next generation

4

October 4-5, 2024, VIETNAM

Mission

- To build a large network connecting women engineers, to embrace and deliver the results of living on purpose based on courage and joy

October 4-5, 2024, VIETNAM

5



Main Activities

- Technical Seminars
- Community Seminar/ Knowledge Sharing
- Trainings
- Technical Project Competition for engineering students
- Community activities
- Donation for Needs
- National Conference/ International Summit

October 4-5, 2024, VIETNAM

6



Fed.MES-WE



Patron Daw Si Than
Dr. Naw Mu Mu Aye
Daw Victoria Simon
Advisor Daw Hla Oo Nwe
Dr. Oo Oo Khin
Dr. Khin Sandar Tun
Daw Kyi Kyi Pyone



Chairman Daw Htay Htay Win
Deputy Chairman Daw Mya Mya Win
Secretary Daw Yin Yin Mya
Joint Secretary Dr. Pwint Thandar Kyaw Kyaw

October 4-5, 2024, VIETNAM

7

Current Situation in Myanmar



Political Changes

Natural Disaster

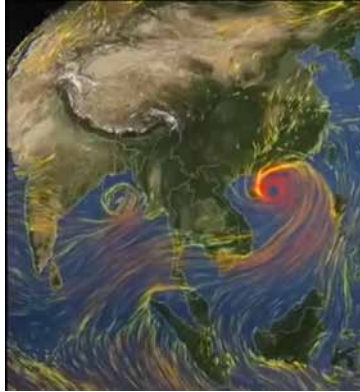
October 4-5, 2024, VIETNAM

8

Typhoon Yagi

September 2024

- Shan
- Kayin
- Mandalay
- Bago
- Naypitaw
- Magway
- Mon
- Kayah



10

October 4-5, 2024, VIETNAM

Political Changes

- 2nd February 2021



9

October 4-5, 2024, VIETNAM

Flood Inundated Areas



October 4-5, 2024, VIETNAM

Activities of Fed.MES-WE (2023-2024)



- Fed.MES-WE Meetings
- World Engineering Day
- WFEO meetings and WEC 2023
- 19th International Conference of Women Engineers and Scientists (ICWES19) and INWES Annual General Meeting (AGM)
- 23rd Mid-term Meeting of AFEO
- CAFEO41
- Webinars in Engineering

October 4-5, 2024, VIETNAM

12

Activities Records



(ICWES19) and INWES Annual General Meeting (AGM)



ICWES19 and INWES AGM



Mid-term meeting



Webinar in Engineering



CAFEO

October 4-5, 2024, VIETNAM

Thank You

October 4-5, 2024, VIETNAM

14

2024 APNN COUNTRY REPORT OF WISE NEPAL

Country:	Nepal	
Organization representing your country	Name:	Women In Science and Engineering Nepal (WISE NEPAL)
	Address:	Lalitpur, Nepal
	Website:	https://wiseneal.org
	Contact #:	977-0951114856 (Jun Hada, Founder/Chair)
	No. of Members:	25
	Main activities:	<ul style="list-style-type: none"> • STEM orientation to girl students in public schools in Nepal. • Career counseling about STEM opportunities at various educational levels. • Scholarship to female students to pursue Bachelors' degree in Civil Engineering • Continued advocacy among different institutions implementing engineering projects for inclusion and diversity in the workforce: including females and people from marginalized groups. • Participate in STEM related activities, webinars & talk programs organized nationally, regionally and globally. • Nominating Participants for different meeting / workshops / conference / networking programmes • Networking among women engineers and scientists and look for opportunities to collaborate • Policy advocacy for gender balanced STEM education
	Goals/other information	<p>Mission:</p> <ul style="list-style-type: none"> • Inspire and empower women in STEM <p>Vision:</p> <ul style="list-style-type: none"> • Bringing more women in STEM together to share knowledge, practices and experiences for betterment in all aspects of life. <p>Core Values:</p> <ul style="list-style-type: none"> • To take advantage of increased networking and knowledge sharing for their professional development in science and engineering related fields. • To advocate for inclusive and women friendly policies in their workplaces. • To encourage girls in Science, Technology, Engineering and Mathematics (STEM) fields of study <p>Goals:</p> <ul style="list-style-type: none"> • Women Scientists and Engineers in Nepal will have better prospects through their active involvement and participation in STEM.

Organizational Representative	Name:	International Network of Women Engineers and Scientists
	Role in above organization:	Institutional Member
	Work Affiliation:	Sub-committee (capacity building)
	Title:	
	Address:	
	Contact #:	
	E-mail:	
<p>We hope to increase the membership of APNN. Please recommend other women STEM groups, and their contacts, known to you either from your own country or from other Asia Pacific areas, which have not yet joined APNN or which are those newly founded for women in STEM fields</p>		<ul style="list-style-type: none"> • Women in Science and Technology (WIST) http://www.wist.com.np/ • Women in STEM Nepal (WiSTEM Nepal) http://wistemnepal.com/ • Women in Astronomy Nepal (WIAN) http://www.nepalastronomicalsociety.org/ • Women of Nepal in Mathematical Science (WoNiMS) https://sites.google.com/site/ssawm2017/wo-nims • Miss-Tech (It is a team of women for women from Robotics Association of Nepal.) https://www.ran.org.np/miss-tech/miss-tech-2018/ • Nepal Engineers Association – women engineers sub-committee) http://www.neanepal.org.np/ • Women Scientists Forum Nepal, Nepal Academy of Science and Technology https://nast.gov.np/wsfn?wsfn • Organization for Women in Science for the Developing World https://owsd.net/network/nepal • Rural Women’s network (RUWON Nepal) http://ruwonnepal.org.np/

2024 APNN COUNTRY REPORT OF PHILIPPINE TECHNOLOGICAL COUNCIL WOMEN ENGINEERS NETWORK (PTC WEN)

Name of Country	Philippines	
Organization representing your country	Official Name	Philippine Technological Council Women Engineers Network (PTC WEN)
	Address	Room 428 National Engineering Center F. Agoncillo St. corner Osmeña Ave., UP Diliman, Quezon City, Philippines
	Website	wenph.com (under construction)
	Email	ptcwen@gmail.com
	Telefax Number	+632 926689
	Number of Members	468 members
	Year of INWES Membership	2018
	Main Activities	<ul style="list-style-type: none"> ❖ Annual Election/Oath taking Ceremony/ Turn Over Ceremony ❖ Monthly Meeting of the members of the Board of Trustees ❖ Corporate Social Responsibility (CSR) Activity ❖ Annual Summit ❖ Technical Forums ❖ Attendance to AFEO meetings ❖ Attendance to INWES APNN meetings
	Goals/ Other Information	<p>The PTC WEN was organized as a commitment in the ASEAN Federation Organization (AFEO) aimed:</p> <ol style="list-style-type: none"> 1. To encourage women engineers to remain in the engineering practice 2. To promote greater contribution from women engineers in industry 3. To support women in engineering careers and encourage the achievement as engineers and leaders 4. To recognize the achievements of women engineers 5. To promote understanding, goodwill and cooperation among women engineers

		6. To promote and exchange ideas, concerns and experiences about engineering and technology 7. To encourage the study and application of engineering among female students 8. To become role models in inspiring the next generation of engineers 9. To connect students and professional engineers, and 10. To develop mentoring programs, and to organize engineering related activities which contribute to society and benefit the general public.
Representative of Organization	Name	Engr. Jhoanna B. Soriano, PTC WEN Chairperson
	Affiliation/ Specialization	President – Geodetic Engineers of the Philippines-Bataan Chapter Secretary – Prime Global Renal Experts Inc. Owner: ❖ Soriano Surveying Office and Services ❖ Bataan Azura Corporation
	Email	engrjhoan@yahoo.com
Names of other organizations for women in your country (include websites or other social media, particularly those newly founded in STEM area)		1. Philippine Business Coalition for Women Empowerment (communications@pbcwe.com) 2. Philippine Women's Economic Network or PWEN (philwen.org@gmail.com) (http://philwen.org) 3. UP Center fir women's Studies Foundation Inc. (cws@up.edu.ph)



**PHILIPPINE TECHNOLOGICAL COUNCIL
WOMEN ENGINEERS NETWORK**



Forging a Sustainable Future: Assessing the Impact of the W.I.S.E.R. Project on Future Women Engineers in Renewable Energies

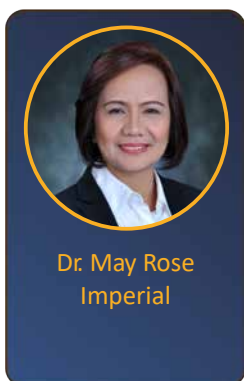
Engr. May Rose Imperial, Ph.D.
Project Manager, USAID –ESP: WISER

Prof. Henry G. Magat, Ed.D.
Director, Center for Quality Management and Development
University of Makati, Philippines

Prof. Mark Philip C. Paderan
Chairman, University of Makati Research Ethics Committee



USAID
FROM THE AMERICAN PEOPLE

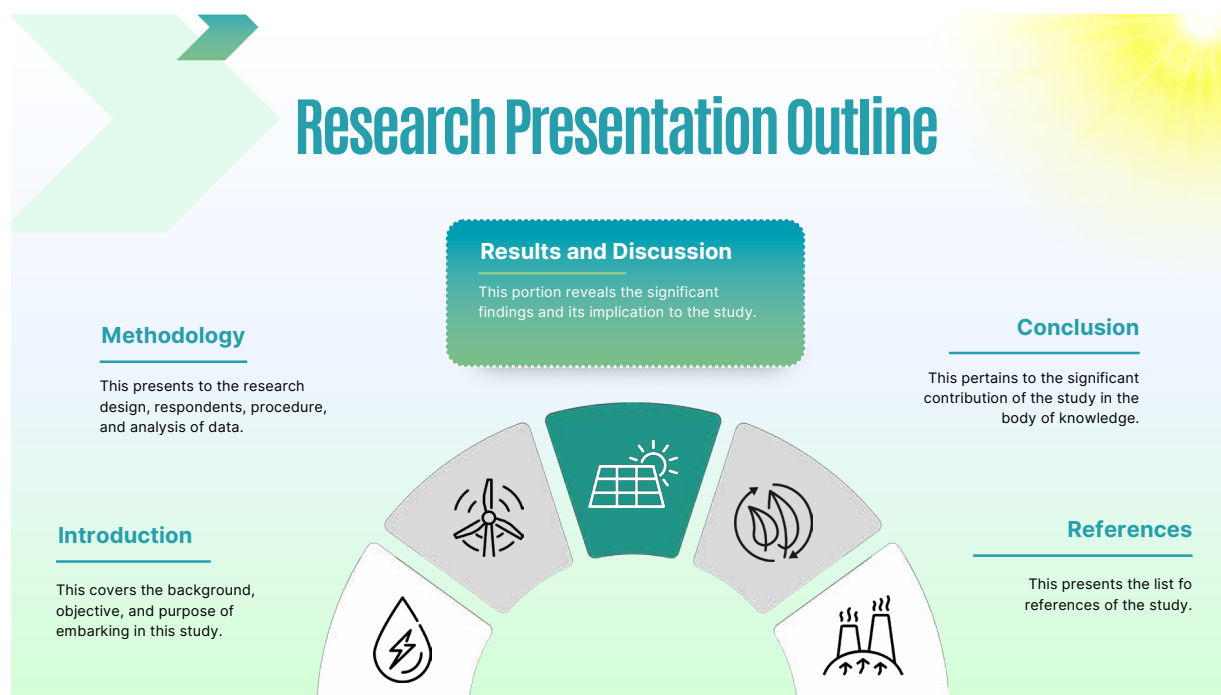


**Dr. May Rose
Imperial**

- **WIFE**, mother to two children (an Aeronautical Engineer and a Pilot)

- Engineering Consultant, Professional Electronics Engineer, ASEAN Engineer, ASEAN Chartered Professional Engineer
- Honorary Fellow, ASEAN Federation of Engineering Organizations
- **Project Manager, USAID Energy Secure Philippines: WISER**
- Chair, PTC Engineering Accreditation Commission
- Chair, Technical Panel for Electronics Engineering, Commission on Higher Education, Philippines
- Secretary, Foundation of Outstanding Professionals of the Philippines
- Treasurer, Electronics Engineers Foundation, Inc.
- 1st Representative, Continuing Professional Development for Electronics Engineers, Professional Regulation Commission

- Was in the Academe for 30 years, a Professor (retired early in 2020)
- 2022-2023 Chair PTC Women Engineers Network
- 2014 National President of the Institute of Electronics Engineers of the Philippines





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FROM THE AMERICAN PEOPLE



USAID ESP: WISER

WOMEN ENGINEERS AS INSTRUMENTS FOR SUSTAINABLE ENGINEERING IN RENEWABLE ENERGIES



Philippine Technological Council (PTC)

Founded in 1980, it is registered in the Securities and Exchange Commission (SEC) as a non-stock, non-profit, private entity and is an umbrella organization of all thirteen (13) integrated engineering professional organizations in the Philippines.



Philippine Technological Council (PTC)

Engineering Professional Organizations (EPOs)

1. Society of Aerospace Engineering of the Philippines
2. Philippine Society of Agricultural and Biosystems Engineers
3. Philippine Institute of Chemical Engineers
4. Philippine Institute of Civil Engineers
5. Integrated Institute of Electrical Engineers
6. Institute of Electronics Engineers of the Philippines
7. Geodetic Engineers of the Philippines
8. Philippine Institute of Industrial Engineers
9. Philippine Society of Mechanical Engineers
10. Society of Metallurgical Engineers of the Philippines
11. Philippine Society of Mining Engineers
12. Society of Naval Architects and Marine Engineers
13. Philippine Society of Sanitary Engineers



USAID Energy Secure Philippines (ESP) Activity



Introduction

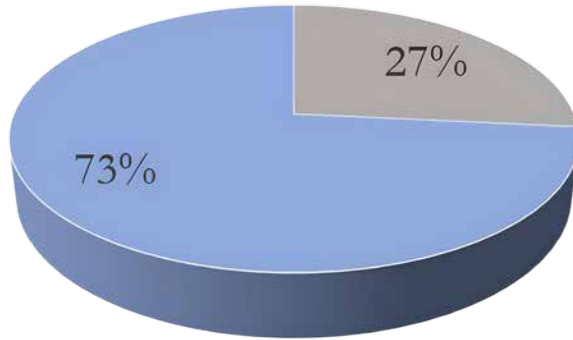
The Philippines is endowed with abundant renewable energy resources, including solar, wind, hydro, and geothermal energy, yet harnessing these resources requires specialized knowledge and expertise (DOE, 2020).

This scarcity underscores the urgent need for interventions that enhance the skill sets of the workforce and align them with industry demands. The W.I.S.E.R. Project represents one such initiative aimed at addressing this gap by empowering future engineers, particularly in the renewable energy sector.



Introduction

The W.I.S.E.R. Project is funded by the USAID addressing skills shortages and shaping the future of the engineering profession. By identifying strengths, weaknesses, opportunities, and threats associated with the program implementation, policymakers, educators, and industry stakeholders can make informed decisions to enhance the relevance and impact of engineering education and practice in the Philippines.



SHS STEM Students

27% goes to **engineering programs**

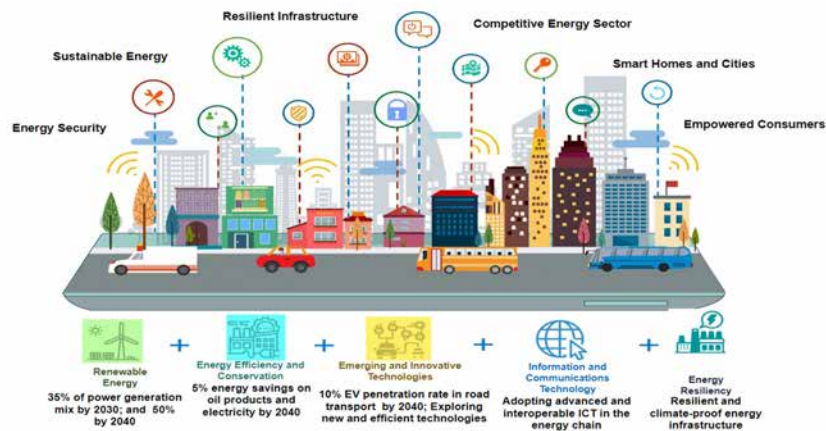
Other STEM related programs Engineering Programs

Distribution of higher education institutions by region and sector - ched. (n.d).
<https://ched.gov.ph/wp-content/uploads/Distribution-of-Higher-Education-Institutions-by-Region-and-Sector-AY-2019-20.pdf>

USAID Energy Secure Philippines (ESP) Activity



FUTURE ENERGY SCENARIO (PEP 2020 – 2040)



Source: Department of Energy PEP 2020-2040

USAID Energy Secure Philippines (ESP) Activity



Male to Female Ratio



Just **two (2)** out of **seven (7)**, 28% engineering students are female.

Philippine Statistics Authority | Republic of the Philippines. (n.d.-c).
https://psa.gov.ph/sites/default/files/2021_pif_final.pdf

USAID Energy Secure Philippines (ESP) Activity



WISEROBJECTIVE PROJECT

Increase the student (preferably girls) enrollment in any of the engineering programs related to renewable energies.





WISER PROJECT ACTIVITIES

**Career and Mentoring Programs (CMP)
and Career and Technical Seminars**



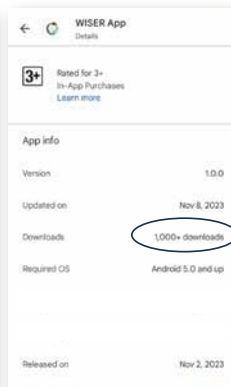
WISER PROJECT ACTIVITIES

**A platform providing
learning materials designed
to deepen students'
knowledge on renewable
energy.**





2. Free **Mobile Application** for the participating students.



Released date: Nov. 2, 2023

Downloads: 1,000+

Available on :
Google Play
App Store

WISER PROJECT ACTIVITIES

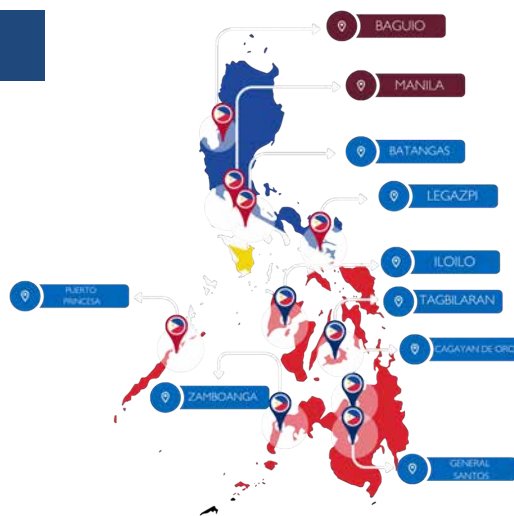
Provide an avenue for competitions in the STEM strand.





USAID ESP: WISER PROJECT SCOPE

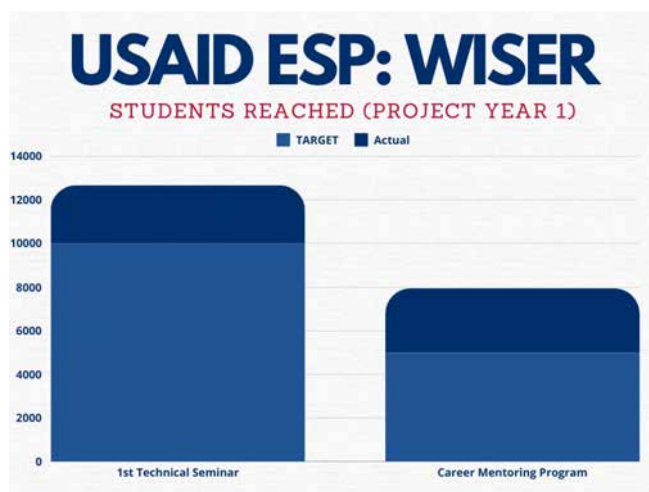
WISER project will be deployed on **eight cities under USAID's Cities Development Initiatives (CDIs)** and **two additional key cities that have a large student population.**



USAID
FROM THE AMERICAN PEOPLE






SUMMARY	TARGET POPULATION	STUDENTS REACHED
1 ST Technical Seminar	10,000	12,674
Career Mentoring Program (Gr. 12)	5,000	7,962

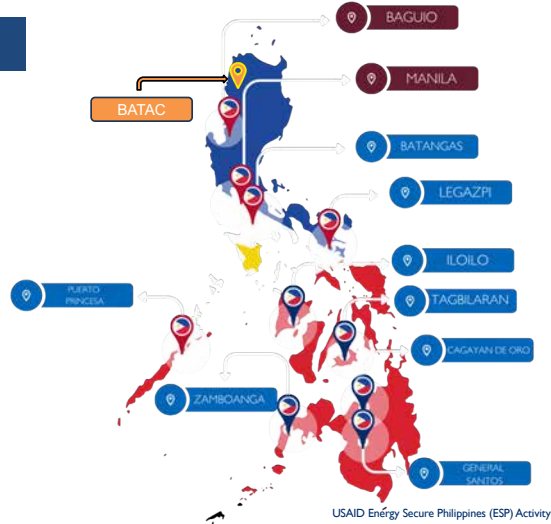




Project Scope (Year 2)

WISER project is deployed on **eight cities under USAID's Cities Development Initiatives (CDIs)**, **two additional key cities that have a large student population**, and **an additional city representing Northern Philippines**.

- 
- 
- 




Theoretical Framework




Utility, Feasibility,
Propriety, and Accuracy

3 years experience as a Chief Sustainability Officer with a qualified educational background.

Objectives

- 
- To examine the extent to which the Women Engineers as Instruments for Sustainable Engineering in Renewable Energies (W.I.S.E.R.) Project is effectively utilized in preparing senior high school students for careers in engineering, specifically within the renewable energy sector.
 - To assess the feasibility of the W.I.S.E.R. Project, considering factors such as accessibility, sustainability, and resource availability to determine its potential for long-term success and scalability.
 - To investigate the propriety of the W.I.S.E.R. Project in terms of its alignment with educational goals, ethical considerations, and its ability to address the identified skills gap in engineering, architecture, and construction.

Objectives

- 
- To conduct a comprehensive assessment of the overall impact of the W.I.S.E.R. Project on senior high school students, gauging its influence on their interest in the renewable energy industry and their preparedness for pursuing engineering professions.
 - To explore potential opportunities for sustainability and adaptability of the W.I.S.E.R. Project across different educational contexts, regions, and countries, considering its implications for broader advancements in engineering education and practices.

Materials and Methods

Research Design

- Employ a mixed-methods research design to allow for a comprehensive exploration of the Women Engineers as Instruments for Sustainable Engineering in Renewable Energies (W.I.S.E.R.) Project.

Research Design

- Select participants from senior high school students who have undergone the W.I.S.E.R. Project, educators involved in its implementation, and industry professionals in the renewable energy sector. Ensure a diverse representation across genders, backgrounds, and experiences.

Materials and Methods

Data Collection

- Quantitative Phase
- Qualitative Phase

Research Instrument

- Structured Surveys
- In-Depth Interview Guides
- Project Documentation Review

Results and Discussion

Utilization

The Women Engineers as Instruments for Sustainable Engineering in Renewable Energies (W.I.S.E.R.) Project is an effective and recommendable platform for encouraging students to be mentored and enroll in renewable engineering.

Table 1 Utilization

#	Indicators	Mean	Verbal Interpretation	Rank
1	The mentoring program has been instrumental in my personal development	3.25	Strongly Agree	8
2	Regularly engage with the program mentor/mentee as part of the mentoring program.	3.07	Agree	9
3	The communication channels provided by the mentoring program are convenient.	3.31	Strongly Agree	7
4	The communication channels provided by the mentoring program are effective.	3.32	Strongly Agree	5.5
5	The program resources and support meet my expectations	3.32	Strongly Agree	5.5
6	Satisfaction with the overall effectiveness of the mentoring program.	3.35	Strongly Agree	3
7	Participation in the mentoring program positively contributes to the goals of the program	3.33	Strongly Agree	4
8	Recommending this mentoring program to others.	3.44	Strongly Agree	1
9	Overall, the program can successfully be utilized in encouraging the present and future students to renewable engineering	3.42	Strongly Agree	2
Total		3.31	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree¹ 1.75-2.49 Disagree³
2.50-3.24 Agree² 1.00-1.47 Strongly Disagree⁴

Results and Discussion

Feasibility

The W.I.S.E.R. Project is achievable and an effective and recommendable platform for encouraging students to be mentored and enroll in renewable engineering.

Table 2 Feasibility

#	Indicators	MEAN	Verbal Interpretation	Rank
1	The objectives of the program are realistic and achievable.	3.37	Strongly Agree	2
2	The resources allocated to the program are sufficient for its successful implementation.	3.29	Strongly Agree	7
3	The timeline for the program is reasonable and allows for effective execution.	3.26	Strongly Agree	8
4	The program aligns with the organizational goals and mission.	3.34	Strongly Agree	5
5	The program has the support and commitment of key stakeholders.	3.32	Strongly Agree	6
6	The program implementation plan is clear and practical.	3.35	Strongly Agree	4
7	The program will have a positive impact on the intended beneficiaries.	3.36	Strongly Agree	3
8	Overall, the project is feasible in building students, institution, and engineering profession's success.	3.40	Strongly Agree	1
Total		3.34	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree¹ 1.75-2.49 Disagree³
2.50-3.24 Agree² 1.00-1.47 Strongly Disagree⁴

Results and Discussion

Accessibility

The W.I.S.E.R. Project has a lot of available resources for the participants and was able to provide quality input for the learners to achieve the objective.

Table 3 Accessibility

#	Indicators	MEAN	Verbal Interpretation	Rank
1	The program information and materials are easily accessible.	3.25	Strongly Agree	4.5
2	It is convenient to access and navigate the program's online platform or tools.	3.23	Agree	7
3	The program scheduling accommodates participants' availability.	3.25	Strongly Agree	4.5
4	Communication about the program is clear and easily understandable.	3.32	Strongly Agree	2
5	Program resources and materials are available in accessible formats (e.g., readable formats, local regional language).	3.27	Strongly Agree	3
6	The program provides adequate support for individuals with special accessibility needs.	3.24	Agree	6
7	Overall, I find the program to be easily accessible and user-friendly.	3.37	Strongly Agree	1
Total		3.27	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree ¹
2.50-3.24 Agree ²

1.75-2.49 Disagree³
1.00-1.47 Strongly Disagree⁴

Results and Discussion

Sustainability

The W.I.S.E.R. Project offers a long term impact to the participants that may fill the gap in the scarcity of renewable energy engineers.

Table 4 Sustainability

#	Indicators	MEAN	Verbal Interpretation	Rank
1	The program has a sustainable impact that will benefit participants (us) over a long time.	3.38	Strongly Agree	2
2	The program demonstrates efforts to ensure its ongoing relevance and effectiveness.	3.36	Strongly Agree	3
3	There are clear plans and strategies in place to secure the program's continued funding or resources handed down to us	3.30	Strongly Agree	7
4	The program has established partnerships or collaborations that contribute to its long-term sustainability.	3.35	Strongly Agree	4
5	The program has demonstrated adaptability to changing circumstance, ensuring its continued success.	3.32	Strongly Agree	6
6	There is a clear leadership commitment to the long-term success and sustainability of the program.	3.34	Strongly Agree	5
7	Overall, I am confident in the program's ability to remain sustainable in the future.	3.43	Strongly Agree	1
Total		3.35	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree ¹
2.50-3.24 Agree ²

1.75-2.49 Disagree³
1.00-1.47 Strongly Disagree⁴

Results and Discussion

Resource Availability

The W.I.S.E.R. Project provided more that adequate knowledge and educational materials that are available via online and offline.

Table 5 Resource Availability

#	Indicators	MEAN	Verbal Interpretation	Rank
1	The program provides sufficient financial resources to meet its objectives.	3.21	Agree	8
2	There is an adequate budget allocated for program activities and initiatives.	3.23	Agree	7
3	Participants have easy access to necessary tools and equipment required for program engagement.	3.26	Strongly Agree	6
4	The program provides ample physical space for activities, meetings, and collaboration.	3.29	Strongly Agree	4.5
5	There is a variety of educational materials and resources available to support program goals.	3.30	Strongly Agree	3
6	The program ensures that technology and online resources are readily available for participants.	3.31	Strongly Agree	2
7	There is a clear system for participants to request and access additional resource, if needed,	3.29	Strongly Agree	4.5
8	Overall, I am satisfied with the availability of resources within the program.	3.32	Strongly Agree	1
Total		3.28	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree ¹ 1.75-2.49 Disagree³
 2.50-3.24 Agree ² 1.00-1.47 Strongly Disagree⁴

Results and Discussion

Accuracy

The speakers and activities of the W.I.S.E.R. Project provided up-to-date knowledge that the participants are able to realize and apply.

Table 7 Accuracy

#	Indicators	MEAN	Verbal Interpretation	Rank
1	The information provided in the WISER Program accurately reflects the current state of knowledge in the Engineering field.	3.37	Strongly Agree	6
2	The content covered in the WISER Program aligns with the established principles and best practices in Engineering.	3.38	Strongly Agree	4.5
3	The WISER Program provides accurate and reliable data, information, and resources related to Engineering concepts.	3.43	Strongly Agree	3
4	Participants in the WISER Program can trust the accuracy of the instructional materials and resources provided.	3.38	Strongly Agree	4.5
5	The program's assessments and evaluations accurately measure participants' understanding of Engineering concepts.	3.36	Strongly Agree	7
6	The WISER Program updates its content regularly to ensure accuracy in light of evolving knowledge.	3.38	Strongly Agree	2
7	Overall, I believe that the WISER Program provides accurate and reliable information for participants.	3.44	Strongly Agree	1
Total		3.32	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree ¹ 1.75-2.49 Disagree³
 2.50-3.24 Agree ² 1.00-1.47 Strongly Disagree⁴

Results and Discussion

Summary

Table 8 Summary

#	Indicators	MEAN	Verbal Interpretation	Rank
1	Utilization	3.31	Strongly Agree	4
2	Feasibility	3.34	Strongly Agree	2
6	Propriety	3.36	Strongly Agree	1
7	Accuracy	3.32	Strongly Agree	3
	Total	3.32	Strongly Agree¹	

Legend: 3.25-4.00 Strongly Agree ¹ 1.75-2.49 Disagree³
 2.50-3.24 Agree ² 1.00-1.47 Strongly Disagree⁴

The respondents of the study strongly agree with the utilization, feasibility, propriety, and accuracy on the W.I.S.E.R. Project. This is a significant platform for campaigning Renewable Energy Engineering to the Senior High School Students.

Conclusion



Utilization

The program's high ratings in utilization indicate that participants strongly agree with its effectiveness in meeting their needs and goals within the engineering field.

Feasibility

The program demonstrates feasibility by receiving strong agreement from participants regarding its realistic objectives, sufficient resources, and clear implementation plan.



Propriety

The program upholds propriety standards by effectively addressing skills gaps, clearly communicating educational goals, and providing relevant content aligned with industry demands.

Accuracy

The program maintains high standards of accuracy by providing reliable and up-to-date information that accurately reflects the current state of knowledge in the engineering field.



Conclusion

W.I.S.E.R. Project is a compact platform for campaigning, effecting, and influencing students to pursue engineering programs. This helps the students realize the value of this field through experience-based mentoring, engaging engineering workshops, reliable and available resources, and a student-friendly approach in delivering the project. This can be a MUST-ADAPT project to produce a society-ready renewable energy engineers.

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 Thank you! 



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PTC Women Engineers Network

MAIN ACTIVITIES SINCE 2023 APNN MEETING

1. Tree Planting



In October 2023, a tree planting activity took place in Pantabangan, Nueva Ecija under the leadership of Dr. May Rose Imperial. The event was attended by members of PTC WEN and PSABE in collaboration with personnel from the DAM and RESERVOIR Division. The participants came together to plant trees in an effort to promote environmental conservation and

sustainability in the region. This collaborative initiative not only aimed to increase the green cover in the area but also to foster a sense of community and shared responsibility for the environment among the participants. The tree planting activity served as a meaningful way to contribute to the preservation of nature and create a positive impact on the local ecosystem.

2. Election of Officers

This is an annual activity being participated in by the official representatives of the thirteen Engineering Professional Organizations (EPO) that composed the Philippine Technological Council. Each year, each EPO is required to endorse at least two (2) women engineers (a principal and an alternate representatives) to represent their organization in PTC WEN. These

EPO representatives automatically become members of PTC WEN Board of Trustees. The conduct of the election comprised of the thirteen representatives casting their individual votes for the Executive Officers positions namely, Chairperson, Vice-Chairperson, Secretary, Treasurer, and Press Relation Officer (PRO).

PTC WEN EXECUTIVE OFFICERS 2024

Chairperson - Engr. Jhoanna B. Soriano (GEP)

Vice Chairperson - Engr. Carina V. Pecson (SMEP)



Secretary - Engr. Janice Vargas (PSABE)

Treasurer - Engr. Teresita Balba (PICHE)

Auditor - Engr. Archelle-Bea Baculi (PSME)

PRO - Dr. Joeihanna Ngo (PIIE)

Immediate Past President - Dr. May Rose C. Imperial (IECEP)

3. Oath Taking of 2024 Executive Officers and Board of Trustees



On January 4, 2024, an important event unfolded as the new set of Executive Officers were elected. The oath taking ceremony was officiated by PTC WEN founder, Dr. Lydia Tansinsin, as the inducting officer. This ceremony marked a pivotal

moment in the organization's journey towards growth and development. The anticipation of change was palpable as the members gathered to witness the transition of leadership.

4. Turnover of Leadership



After the oath taking ceremony, a turnover activity took place in Quezon City, Philippines on January 28, 2024. This ceremonial event symbolized the official transfer of responsibilities and authority to the newly elected officers. As the new set of officers assumed their roles, a

sense of renewal and purpose filled the room. The guidance and wisdom Dr. Lydia Tansinsin, who was also present during the occasion, served as a beacon for the incoming leadership, inspiring them to uphold the values and vision of the organization.

5. Women Engineers Day Celebration

On March 28, 2024, in celebration of WED, a special webinar entitled "WEN it to WIN it" was hosted to honor and recognize the achievement of women engineers around the world. The webinar showcased the inspiring stories of two (2) successful engineers, Engr. Estrelita Bordallo (from GEP) and Engr. Myra Manalo (from IECEP).

The webinar not only celebrated the accomplishments of the speakers but also served as a platform to empower and encourage other women to pursue careers in engineering, their stories of resilience, innovation and excellence inspired attendees to strive for success and make a positive impact in the field of engineering. "WEN it to WIN it" highlighted the importance of diversity and inclusion in the

engineering industry and reinforced the idea that women engineers have the skills, talents, and determination to excel in their chosen fields. It

was a celebration of empowerment, inspiration, and the limitless possibilities that the women engineers bring to the world.

6. Engineering Month Celebration



In celebration of Engineering Month last March 2024, the PTC WEN took an active role in various sports events and activities organized by its mother organization (PTC). The PTC WEN member participated in the Golf Tournament (represented by Dr. May Rose Imperial, and Engr. Aida Calma) and in Bowling Tournament (represented by Dr. Evelyn Laurito, Engr. Chiles Balana, Engr. Leizel Jandusay, and Engr. Aida

Calma). The members of PTC WEN actively participated also in the Shooting competition (represented by Engr. Maribel Martinez, Dr. Myra Manalo, and Dr. May Rose Imperial). The active participation of PTC WEN members demonstrated the willingness to be part of the celebration of the Engineering Month to, at the same time, showcase their individual talents beyond the realm of engineering.

7. Science, Technology, Engineering, and Mathematics (STEM) Promotion

Part of the advocacies of PTC WEN is the promotion of STEM to the younger generation. The USAID ESP WISER Project is the fundamental means that paves the direction of PTC WEN in the achievement of its goal in this specific area. This project is being spearheaded by PTC WEN's immediate past president, Dr. May Rose Imperial, being the its Project Manager. This USAID funded project is specifically designed to benefit students in Senior High School who intend to pursue courses related to STEM. The PTC WEN members were given significant roles in the different activities launched

under the USAID ESP WISER Project. They actively participated during the campaign

activities conducted in various High Schools around the nation specifically covering the three major group of islands in the country namely Luzon, Visayas and Mindanao. One specific event by PTC ESP WISER Project is the "Ideation Competition" for Senior Students. In this event, members of PTC WEN served as judges during the Regional Level Competition (Elimination Round) and the National Level Competition (Final Round). The Ideation Competition, with the theme "Innovation and Sustainability of Renewable Energies and Technologies in the Philippines", staged the inherent talents of students to convert their ideas into tangible scientific inventions and creations.

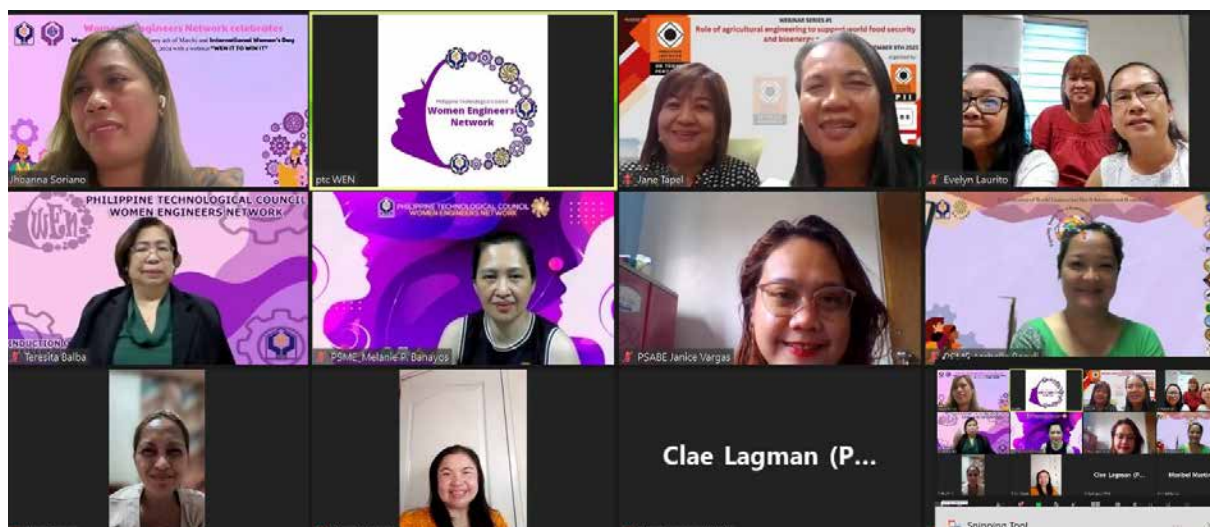


8. International Women in Engineering Day (INWED) Celebration

The INWED webinar, entitled “Empower and Excel: Introducing Generative AI for Women Engineers and Aspiring Innovators”, brought together two distinguished speakers, Prof. Evelyn Laurito, PhD from UST Graduate School, and Dean Maricel Teogangco from UPHS DALTA Engineering. The webinar provided a platform for women

engineers to learn about the transformative power of generative AI and how it can help them succeed in their careers. It was a celebration of International Women in Engineering Day and a testament to the limitless potential of women in the field of engineering.





9. Participation in International Conferences



The PTC WEN trustees and members represented the organization in significant

international gatherings namely:

- FEIAP Conference in Taiwan

- Midterm Meeting of CAFEO 41 in Singapore
- APNN Conference in Mongolia
- ICWES 19 in Auckland New Zealand

10. 8th Philippine Women Engineers and Scientists Summit (PWESS 8)



The PTC WEN hosted its annual summit (PWESS 8), bringing together women engineers from different EPOs to foster unity and collaboration. The PWESS 8 which was held at the luxurious AZIZA Paradise Hotel in the City of Puerto Princesa, Palawan, Philippines last August 22 to 24, 2024 was a resounding success. With the theme "Trailblazers and Change Makers: Women in Science and Engineering for a Sustainable and Inclusive World", the hybrid summit empowered and inspired 317 women engineers and scientists.

The success of the summit was evident in the lively discussions, valuable connections made, and the enthusiasm of the participants in the entire keynote speeches, series of plenary talks, and panel discussions. The participants left the summit inspired and motivated. The latter clearly signified that PTC WEN summit had provided a significant impact in advancing the role of women in science and engineering for a sustainable and inclusive world.

11. 7th Lakambining Inhinyera



In conjunction with the PWESS 8, PTC WEN also hosted the 7th Lakambining Inhinyera pageant. This prestigious event showcased the talents and accomplishments of six (6) candidates who vied for the coveted title Lakambining Inhinyera 2024. This year's pageant was participated in by the EPOs of GEP (Engr. Precious Navarro), IIEE (Engr. Jelisha Espiritu), PSME (Engr. Angel Parawan), IECEP (Engr. Christine Gulmatico), SAEP (Engr.

Alyssa Nicole Villamarin) and PSABE (Engr. Chatie Manalastas). Engr. Navarro of GEP was crowned as the Lakambining Inhinyera 2024. The Pageant not only celebrated the achievements of Engr. Navarro but also highlighted the talent and potential of all the candidates. The Crown symbolizes a shining example of the outstanding women making a difference in the engineering industry.

12. Corporate Social Responsibility (CSR) Activity



On the third (3rd) day of PWESS 8, PTC WEN organized a meaningful CSR activity. This initiative was focus to support and empower the Batak Tribe, a community in the Puerto Princesa, Palawan Philippines that lacks the access to electricity. Partnering with the IECEP, the PTC WEN organized a demonstration on how to use and operate solar powered panels as sustainable energy solution for the Batak

Tribe. The demonstration aimed to introduce the tribe members to alternative energy resources that could help improve their quality of life and provide them with access to much needed electricity. The initiative also fostered a spirit of collaboration and support between engineers and local communities, promoting sustainable development and inclusivity.

Plan for 2025 Activities

The intended activities for 2025 will be linked in the Future Outlook of PTC WEN as stated below:

1. Increased Visibility for Women

EngineersHosting of prestigious events that will enhance the visibility of women engineers in the Philippines in order to showcase their contributions and to empower future generations of women in STEM fields.

2. Strengthened Collaborations

The engagement of diverse international stakeholders can lead to long-lasting partnerships, networking opportunities, and collaborative projects that support women engineers both locally and globally.

3. Skill Development and Knowledge Sharing

Conferences that will provide platforms for skill development, sharing innovative practices, and enhancing technical competencies among participants, contributing to the overall advancement of the engineering profession.

4. Empowerment of Future Leaders

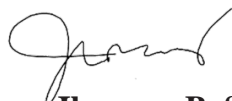
PTC WEN can inspire young women to pursue careers in engineering and related fields, promoting gender equality and empowering the next generation of female leaders in science and technology.

5. Sustainability Practices

The opportunity to highlight and exchange the best practices in sustainability and engineering innovation will further position the Philippines as a thought leader on the international stage.


Vision and Suggestion for Future Cooperation among APNN or/and INWES Members (this information could be helpful when women engineers and scientists want to collaborate with those working in specific areas).

Prepared by:



Engr. Jhoanna B. Soriano

PTC WEN Chairperson



Engr. Carina V. Pecson

PTC WEN Vice Chairperson

2024 APNN COUNTRY REPORT OF SRI LANKA

Country:	Sri Lanka	
Organization representing your country	Name:	Women in Science and Engineering (WiSE) Sri Lanka
	Address:	No 05: Lionel Edirisingha Mawatha, Colombo 05, Sri Lanka
	Website:	https://womenscienceengineering.wordpress.com/ (Under construction) Facebook page: https://www.facebook.com/WiSEsl
	Contact #:	+94 777894130 (Dr. Vishaka Hidellage - Chair Person)
	No. of Members:	30
	Main activities:	Contribution towards achieving National climate action goals and targets with an emphasis on 1. Waste Management - adapting the waste loads generated with Covid 19 pandemic status. 2. Research and innovation on environmental management implicating the new normal
	Years of INWES APNN member organization	11 Years
	Goals/other information	Mission To enhance professional and social development opportunities for women especially the young, by creating a support system and an active dialog focusing on issues unique to women in science and engineering. Vision Women in Sri Lanka are confident to be educated in any sphere of science and technology and are active professionals in the fields of their training. They have

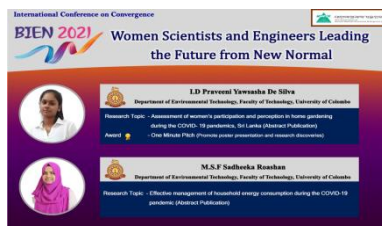
		<p>the capacity to take part in providing solutions and making decisions important to the country and its citizens.</p> <p>Core Values</p> <p>Women in Science and Engineering Sri Lanka is a professional platform for women in Science, Engineering and Mathematics (+/- to attain their full potential.)</p> <p>Goals (2020-2025)</p> <ol style="list-style-type: none"> 1. Continue awareness on environment focusing on climate change, waste management and related topics. 2. Expanding WiSE circles in State Universities, Sri Lanka. 3. Participation in APNN and related events. <ul style="list-style-type: none"> • Continue campaign against the use of polythene packaging using own resources until funds are raised. 4. Follow up with USAID and other potential donors to continue Waste Management activities. 5. Support rural and underserved school children studying Mathematics and Science in year 11 and above.
Organizational Representative	Name:	Ms. T.A.N.T. Perera (Ms. Nilusha Perera)
	Role in above organization:	Secretary
	Work Affiliation:	Uva Wellassa University of Sri Lanka
	Title:	Lecturer
	Address:	Department of Export Agriculture Faculty of Animal Science & Export Agriculture

		Uva Wellassa University Passara Road, Badulla (90000) Sri Lanka.
	Contact #:	+94 715200071
	E-mail:	nilusha@uwu.ac.lk
We hope to increase the membership of APNN. Please recommend other women STEM groups, and their contacts, known to you either from your own country or from other Asia Pacific areas, which have not yet joined APNN or which are those newly founded for women in STEM fields		Center for Women's Research Women in Need South Asia Fund for Women UN Women Sri Lanka Unites (Show You Care) Duryog Nivaran IEEE-WIE Sri Lanka Section (International Electrical and Electronic Engineers- Women in Engineering) Sri Lanka

1. Activities of the organization

I. Every year, two young women scientists from WiSE SL attended the YWS camp, which is conducted in conjunction with the Asia and Pacific Nations' (APNN) Meeting.

- Ms. Sonali Dinesha Herath and Ms. Milani Tharuka Nadeeka represented WiSE SL at the 2019 YWS Camp, which was held in Seoul, Korea from 7 – 9 of August, 2019.
- Ms. Nilusha Perera and Ms. W.P. Buddhima Madhavi Gunarathna represented WiSE SL at the 2020 KWSE/APNN International Young Woman Scientist Camp & Smart Sister Workshop November 4-6, 2020 / Online & In-person Hybrid, Lotte City Hotel, Daejeon, Korea. (Ms Nilusha won the best content creator award)
- Ms. Praveeni Yawansa and Ms. Fathima Sadheeka represented WiSE SL at the 2021 KWSE/APNN International Young Woman Scientist Camp & Smart Sister Workshop/ Online & In-person Hybrid, Daejeon, Korea. Ms Praveeni won the best presenter at one minute pitch event.
- Ms. Lakshmi and Ms. Sanduni represented WiSE SL at the 2022 KWSE/APNN International Young Woman Scientist Camp & Smart Sister Workshop Aug 24-26, 2022/Online & In-person Hybrid, Lotte City Hotel, Daejeon, Korea. Ms Lakshmi won the best presenter at one minute pitch event.



II. Every year, two scientists from WiSE SL attended the YWS camp as mentors, which is conducted in conjunction with the Asia and Pacific Nations' (APNN) Meeting.

III. Research and publications of the WiSE members in international conferences

- G.Y. Jayasinghe, T.A.N.T. Perera, H.A.T.N. Perera, H.D. Karunarathne, L. Manawadu, V.P.A. Weerasinghe, B.G.N. Sewwandi, M.H. Haroon, Chamindi Malalgoda, Dilanthi Amaratunga, Richard Haigh (2024) A systematic literature review on integrating disaster risk reduction (DRR) in sustainable tourism (SusT): Conceptual framework for enhancing resilience and minimizing environmental impacts. International Journal of Disaster Risk Reduction. Elsevier B.V. <https://doi.org/10.1016/j.ijdr.2024.104742>.
- T.A.N.T Perera, Ranjana U.K Piyadasa, M.H.J.P. Gunarathne, D. Nagesh Kumar (2024) SWAT model to simulate hydrological responses to land use and land cover changes in a tropical catchment: A study in Sri Lanka. Groundwater for Sustainable Development. Elsevier B.V. <https://doi.org/10.1016/j.gsd.2024.101251>.
- J.S.R. De Silva, G. Abhiram, T.A.N.T. Perera, H.M.S.K. Herath, R.M.K.T. Rathnayake, J.B.D.A.P. Kumara, P.K.G.S.S. Bandara (2023) "Artificial Intelligence (AI) Assisted Precision Agriculture, Applications in Asian Context", Book: Geospatial Science for Smart Land Management, 1st Edition, CRC Press, eBook ISBN: 9781003349518 2024 APNN Country Report of Sri Lanka

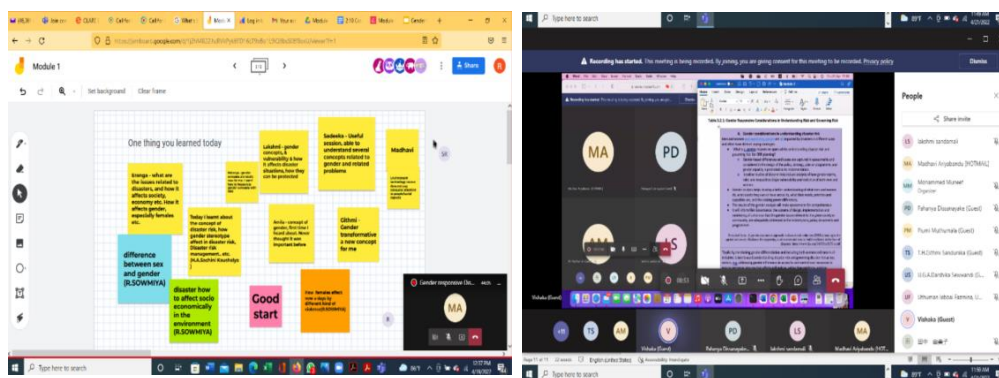
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- P.M.M. Peiris, R.M.Y.K. Rathnayake*, M.F. Nifla, H.M.Y.L. Herath, T.A.N.T. Perera (2024). "Reviewing ideal rice traits for climate change adaptation in Sri Lanka" The First International Conference on University-Industry Collaborations for Sustainable Development (ICSD 2024). 15th-17th March 2024 organized by The Colombo Conference.
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IV. Workshop series

Gender Responsive Disaster Risk Reduction (For Implementing Sendai Framework on Disaster Risk Reduction).

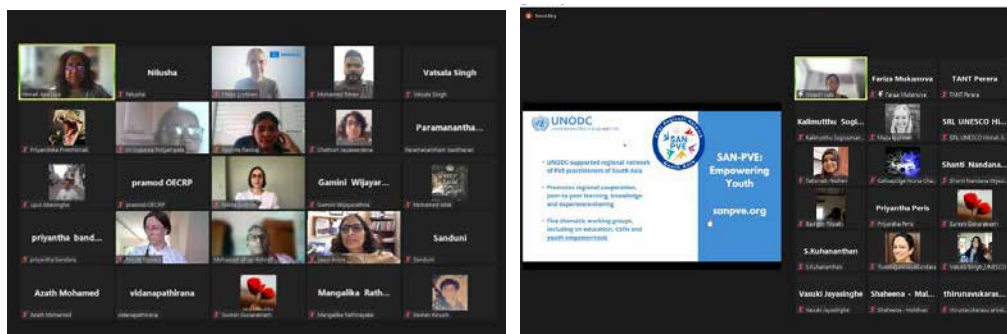
- A training course was held on Gender Responsive Disaster Risk Reduction (for implementing SFDRR).



An awareness programme for school Principals, teachers and students on urban agriculture, and positive attitude development towards a cultivation culture

The programme aims to eradicate/minimize malnutrition among school children and encourage the cultivation culture in schools as well as students' home environments. This activity largely helped identify the value of providing knowledge and skills on urban agriculture practices and integrated agriculture for the school communities.

Participation in "UNESCO's Training and Grants Programme: Harnessing Youth Action for Social Cohesion"



2. Plan for 2025 activities

- i. Continue to attend KWSE initiatives such as the annual YWS event and share experience.
- ii. Assist in global and regional surveys and research initiatives - Depending on the opportunities we will try to provide support
- iii. Represent APNN 2024 (Mentoring, YWS)

3. Vision and suggestion for future cooperation among APNN or/ and INWES members

3.1 Strengthening Collaborative Research

Joint Research Projects: Encourage and support collaborative research initiatives across member countries, focusing on pressing global issues like climate change, renewable energy, and sustainable development.

Research Grants and Funding: Establish joint funding mechanisms to provide financial support for cross-border research projects, particularly those led by women scientists and engineers.

3.2 Enhancing Networking and Mentorship

Mentorship Programs: Develop structured mentorship programs that connect experienced professionals with young women in STEM, fostering knowledge exchange and professional development. 2024 APNN Country Report of Sri Lanka Presented By Secretary, WiSE: Nilusha Perera networking among members, enabling them to share expertise, resources, and opportunities.

3.3 Promoting Capacity Building and Skill Development:

Training and Workshops: Offer specialized training programs and workshops that focus on emerging technologies, leadership skills, and career advancement, ensuring women in STEM remain competitive in the global workforce.

Exchange Programs: Create opportunities for members to participate in exchange programs, allowing them to gain international experience, learn best practices, and broaden their professional networks.

3.4 Leveraging Technology for Collaboration

Digital Platforms: Develop and utilize digital platforms to facilitate communication, resource sharing, and collaboration among members, especially in times when physical meetings are not feasible.

Virtual Collaboration Tools: Invest in virtual tools and platforms that enable members to collaborate effectively on research, projects, and advocacy efforts across different regions.

4. Detailed information of members (This information could be helpful when women engineers and scientists want to collaborate with someone working in specific areas. Providing an email address is optional).

Name	WiSE membership	Work / Research area	Professional affiliation	E-mail / web
Dr. Vishaka Hidellage	Board member	Environment & Development	WiSE	Vishaka_hidellage@yahoo.com
Ms. Nilusha Perera	Board member	Agricultural Engineering and Environment modelling	Uva Wellassa University of Sri Lanka	https://www.researchgate.net/profile/Nilusha-Perera-2/research
Ms. Vindhya Tissera	Board member	Science	WiSE	Vindhya.tissera@gmail.com
Ms. Kanchana Wijenayake	Board member	Food Science and Nutrition	WiSE	kanchanawijenayake@gmail.com
Dr. Udari Rathnathunga	Board member	Plant Sciences, Breeding and Genetics, Urban Bioresources,	Senior Lecturer – University of Sri Jayawardenepura Sri Lanka	uvindhya@sjp.ac.lk https://www.researchgate.net/profile/Udari-Rathnathunga/
H.M.M.S.D.Herath	Member	Urban Green Infrastructure	PhD student, Graduate School of Science and Engineering, Saitama University, Japan	sonalidherath66@gmail.com



INWES APNN 2024 - VAFIW 2024

INWES APNN Report of Sri Lanka



Nilusha Perera
Lecturer
Uva Wellassa University of Sri Lanka

Biography

Secretary - Women in Science and Engineering (WiSE) - Sri Lanka

Nilusha Perera, currently serving as a Lecturer in Agriculture Engineering at Uva Wellassa University of Sri Lanka. She completed her bachelor's degree (B.Sc) in Agricultural Resources management & Technology at the University of Ruhuna, Sri Lanka and reading Master's degree at the University of Colombo, Sri Lanka. She is broadly interested in smart agriculture with particular emphasis on environmental modeling, GIS & Remote sensing. Further, her future research interests are shaped by the emerging trend towards sustainable environment management which emphasis environmental modelling.

Find her on:



Oct 4 - 5, 2024



Women in Science and Engineering - Sri Lanka (WiSE SL)

No. 5, Lionel Edirisinghe Mawatha, Colombo 5
sri.lanka.wise@gmail.com
www.facebook.com/wisesl

WiSE- SL (2013)

Mission

To enhance professional and social development opportunities for women especially the young, by creating a support system and an active dialog focusing on issues unique to women in science and engineering.

Vision

Women in Sri Lanka are confident to be educated in any sphere of science and technology and are active professionals in the fields of their training. They have the capacity to take part in providing solutions and making decisions important to the country and its citizens.

Core Values

Women in Science and Engineering Sri Lanka is a professional platform for women in Science, Engineering and Mathematics (+/- to attain their full potential.)

11/18/2024

WiSE SL

Goals (2020-2025)

1. Continue awareness on environment focusing on climate change, waste management and related topics.
2. Expanding WiSE circles in State Universities, Sri Lanka.
3. Participation in APNN and related events.
4. Continue campaign against the use of polythene packaging using own resources until funds are raised.
5. Follow up with USAID and other potential donors to continue Waste Management activities.
6. Support rural and underserved school children studying Mathematics and Science in year 11 and above.

2



WiSE Sri Lankans



11/18/2024

WiSE SL

3



Current status in network of women engineers and scientists (WiSE-SL)



The 9th Annual General Meeting of WiSE Sri Lanka was held in 13th June 2023.

WiSE Sri Lanka which was initiated in 2013 continued to grow at the same low pace in the 2021-2022 period because of the crisis situation in the country.

During the year WiSE SL gained 17 additional members.

‘WiSE Steps program: This program solely focused on empowering young women undergraduates and immediate graduates in the STEM fields of National Universities of Sri Lanka. It was the start-up of an intended program series and as the first step WiSE successfully launched WiSE SL wings at the **Faculty of Technology, University of Colombo, Faculty of Geomatics, Sabaragamuwa University and Uva Wellassa University of Sri Lanka**. The members of the two new wings participated in a discussion forum with a few senior WiSE members. The forum was organized with the purpose of encouraging young women undergraduates and graduates to continue career development in STEM. Participants' feedback showed that, the discussions held were highly motivational and that they facilitated the sharing of experiences aiming at a better future for women in STEM fields and in general the society.

11/18/2024

WiSE SL

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1. Activities including best practice of networking women in STEM

I. Field visit/training programme for Undergraduate Students – Faculty of Urban and Aquatic Bioresources

With the collaboration between the **Women in Science and Engineering** and the **United Nations Development Programme** we have arranged a field visit for the Kaduwela Municipal Council composting facility. It was a potential and valuable training facility for the undergraduate students to get practical experience.



11/18/2024

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Activities including best practice of networking women in STEM

II. An awareness programme for school Principals, teachers and students on urban agriculture, and positive attitude development towards a cultivation culture

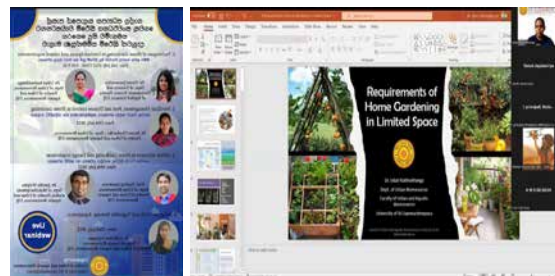
- The programme aims to eradicate/minimize malnutrition among school children and encourage the cultivation culture in schools as well as students' home environments. This activity largely helped identify the value of providing knowledge and skills on urban agriculture practices and integrated agriculture for the school communities.



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WISE SL

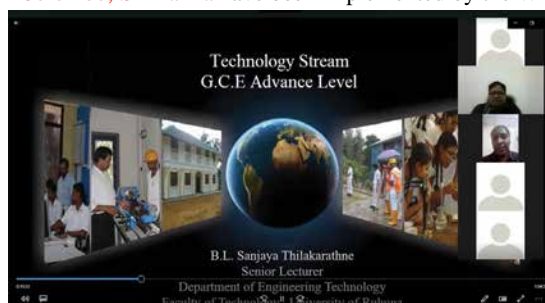


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Activities including best practice of networking women in STEM

III. School educational programme on STEM for science stream students focusing on organic agriculture in collaboration with the **Faculty of Urban and Aquatic Bio-resources, University of Sri Jayawardenapura, Sri Lanka** and an informative programme on STEM for Arts stream students in schools on the technological advancements of Geographic Information Systems and Remote Sensing in collaboration with the **Faculty of Technology, University of Colombo, Sri Lanka** have been implemented by the WiSE in last few years.



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Activities including best practice of networking women in STEM

IV. Research and publications of the WiSE members in international conferences

- G.Y. Jayasinghe, T.A.N.T. Perera, H.A.T.N. Perera, H.D. Karunarathne, L. Manawadu, V.P.A. Weerasinghe, B.G.N. Sewwandi, M.H. Haroon, Chamindi Malalgoda, Dilanthi Amaratunga, Richard Haigh (2024) A systematic literature review on integrating disaster risk reduction (DRR) in sustainable tourism (SusT): Conceptual framework for enhancing resilience and minimizing environmental impacts. *International Journal of Disaster Risk Reduction*. Elsevier B.V. <https://doi.org/10.1016/j.ijdr.2024.104742>.
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Activities including best practice of networking women in STEM

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International Journal of Disaster Risk Reduction

Volume 111, September 2024, 104742



A systematic literature review on integrating disaster risk reduction (DRR) in sustainable tourism (SusT): Conceptual framework for enhancing resilience and minimizing environmental impacts

G.Y. Jayasinghe ^a, T.A.N.T. Perera ^b, H.A.T.N. Perera ^a, H.D. Karunaratne ^c, L. Manawadu ^d,
V.P.A. Weerasinghe ^e, B.G.N. Sewwandi ^e, M.H. Haroon ^f, Chamindi Malalgoda ^g,
Dilanthi Amaratunga ^g, Richard Haigh ^g

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<https://doi.org/10.1016/j.ijdrr.2024.104742>
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Research paper

SWAT model to simulate hydrological responses to land use and land cover changes in a tropical catchment: A study in Sri Lanka

T.A.N.T. Perera ^{a, b} ✉, Ranjana U.K. Piyadasa ^b, M.H.J.P. Gunarathna ^c, D. Nagesh Kumar ^d

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<https://doi.org/10.1016/j.gsd.2024.101251>
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Implementation of Low Cost, Automated, Mobile Monitoring Module by Means of IoT for Container Gardening in Urban Areas

Published: 02 July 2024

Volume 136, pages 2385–2404, (2024) [Cite this article](#)

Wireless Personal Communications

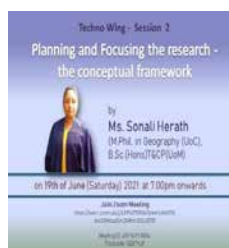
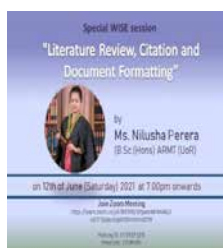
[Aims and scope](#)
[Submit manuscript](#)

Activities including best practice of networking women in STEM



V. Webinar series

- Research methods, concept development, and technical elements for students that enhance their soft skills and personal qualities.



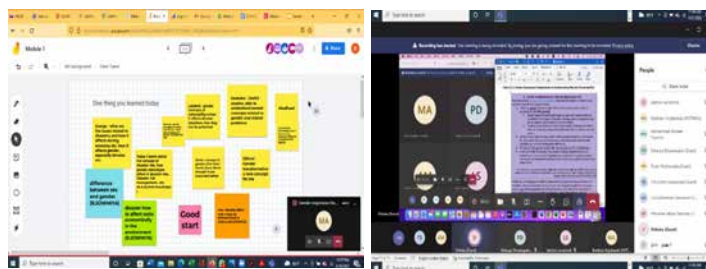


Activities including best practice of networking women in STEM

VI. Workshop series

Gender Responsive Disaster Risk Reduction (For Implementing Sendai Framework on Disaster Risk Reduction).

- A training course was held on Gender Responsive Disaster Risk Reduction (for implementing SFDRR).
- The training course consisted of four modules and was held 19th - 22 Apr 2022. Organized by Duryog Nivaran (South Asia Network for Disaster Risk Reduction).



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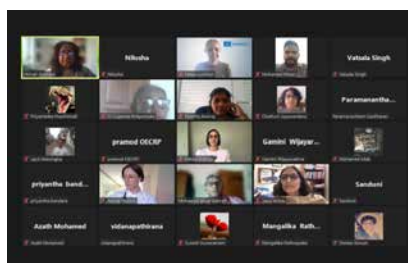
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Activities including best practice of networking women in STEM

Participation in "UNESCO's Training and Grants Programme: Harnessing Youth Action for Social Cohesion"



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Activities including best practice of networking women in STEM

VII. Attending the YWS camp

- ✓ Ms. Sonali Dinesha Herath and Ms. Milani Tharuka Nadeeka represented WiSE SL at the 2019 YWS Camp, which was held in Seoul, Korea from 7 – 9 of August, 2019.
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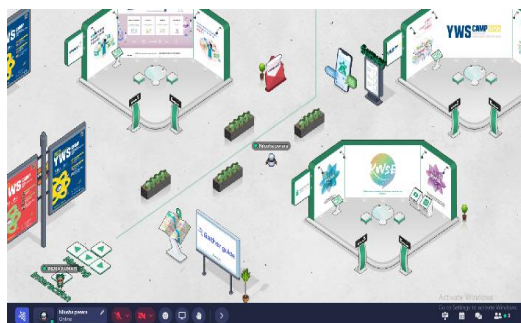
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Activities including best practice of networking women in STEM

Attending the YWS camp as mentors



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Activities including best practice of networking women in STEM



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Vision and suggestion for future cooperation among APNN or/and INWES members

1. Strengthening Collaborative Research

Joint Research Projects: Encourage and support collaborative research initiatives across member countries, focusing on pressing global issues like climate change, renewable energy, and sustainable development.

Research Grants and Funding: Establish joint funding mechanisms to provide financial support for cross-border research projects, particularly those led by women scientists and engineers.

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Vision and suggestion for future cooperation among APNN or/and INWES members

2. Enhancing Networking and Mentorship

Mentorship Programs: Develop structured mentorship programs that connect experienced professionals with young women in STEM, fostering knowledge exchange and professional development.

Networking Events: Organize regular conferences, workshops, and webinars to facilitate networking among members, enabling them to share expertise, resources, and opportunities.

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Vision and suggestion for future cooperation among APNN or/and INWES members

3. Promoting Capacity Building and Skill Development

Training and Workshops: Offer specialized training programs and workshops that focus on emerging technologies, leadership skills, and career advancement, ensuring women in STEM remain competitive in the global workforce.

Exchange Programs: Create opportunities for members to participate in exchange programs, allowing them to gain international experience, learn best practices, and broaden their professional networks.

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Vision and suggestion for future cooperation among APNN or/and INWES members

4. Leveraging Technology for Collaboration

Digital Platforms: Develop and utilize digital platforms to facilitate communication, resource sharing, and collaboration among members, especially in times when physical meetings are not feasible.

Virtual Collaboration Tools: Invest in virtual tools and platforms that enable members to collaborate effectively on research, projects, and advocacy efforts across different regions.

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Women in Science and Engineering - Sri Lanka (WISE SL)

No. 5, Lionel Edirisinghe Mawatha, Colombo 5
srilanka.wise@gmail.com
www.facebook.com/wisesl



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Country report: Taiwan with TWiST

Chao-Ping (Cherri) Hsu
VP, the Society of Taiwan Women in Science and Technology
(TWiST)
Research Fellow, Institute of Chemistry, Academia Sinica

APNN October 4-5, 2024, Hanoi, Vietnam

A leaky STEM pipeline



2

4 core objectives and 3 key highlights



3

Working with Microsoft Taiwan

Tech network for women

Coding Angels 2024
Seeing the need of Junior Women Computer Scientists



ST With DuPont Women's Network

STEM Academics and Edu

STEM camp for High School students



邦妳探索未來
STEM實作營

活動免費，並贈午餐及參與證明

深耕台灣超過50年，杜邦公司在半導體製造和消費電子產業中建立深厚經驗和技術創新，連續社群核心價值之一「尊重他人」，我們積極打造一個多元、平等、共融的工作環境，在杜邦致力營造的環境下，更注意女性科技業者的職業發展，提供女性實作營，將特別為高中至大學科技專業女性提供發展機會，更有手作實驗的課程，立即行動報名吧。

活動時間：2024/08/23 (五) 9:00-12:30
活動地點：國立中興大學 應用科技大樓226教室
活動對象：升高一至升高三 女性高中學生

活動內容：

時間	活動
09:00-09:10	報到
09:10-09:50	女科技人學會&杜邦公司介紹
09:50-10:30	STEM職涯分享
10:40-12:10	研習課程體驗實作

若有任何問題，歡迎聯絡anna.lin-2@dupont.com

主辦單位：ST 協辦單位：女科技人學會、中興大學、應用科技大樓



ST With Marie Curie Science Camp

STEM Academics and Edu

A large team effort for high school students, equal number for boys and girls.

TWiST members joined with a lunch time chat, conveying ideas of gender equality from all aspects.

2024瑪麗居禮科學營

AI 人工智慧：前瞻與挑戰

產學業界領袖等領銜主講

4 場專題演講
1 場夜談
2 項實作實驗
1 場研究機構參訪

報名資訊

報名時間：2024年4月8日12:00起至2024年4月26日17:00截止
報名對象：(1) 高中學生 (2) 高中畢業生
報名網址：(請填寫) - <https://ccmf.org.tw/camp2024/>

活動資訊

時間：2024年7月5日至2024年7月8日，為期4天
地點：國立臺灣師範大學（科口校區）、中央研究院分子與生物科學研究所（台大校區）
名額：學生學員100名（含報名費）、教師學員20名（含前額額部分補助）





Career development sharing

Tech Network

IEDMS & SNDCT 2024

Worked with..
ITRI
Semiconductor research
&
Electronic and device
Association

IEDMS & SNDCT

迎向職場人生

08/19(一) 15:00-17:00
陸中樓貴賓樓飯店 (原台聯)

講者: 彭國平 執行長
台積電研發事業部執行長
國際矽智研董事兼執行長
「與她主義 Out! 團隊協作力 In!」

講者: 沈香梅 總務
台積電研發事業部執行長
國際矽智研董事兼執行長
「與她主義 Out! 團隊協作力 In!」

講者: 林麗潔 經理
台積電研發事業部執行長
國際矽智研董事兼執行長
「與她主義 Out! 團隊協作力 In!」

講者: 謝麗潔 經理
台積電研發事業部執行長
國際矽智研董事兼執行長
「與她主義 Out! 團隊協作力 In!」

主持人: 冉曉雲 教授
國立交通大學電機系教授
IEEE 中華民國分會副主委

「社群網絡的價值?」
「如何增進工作效率?」
「如何提升職場競爭力?」

主辦單位: ITRI 半導體研究所, 電子與電機工程學院, 電子與電機工程學系, 電子與電機工程學系
協辦單位: ST 台灣女科技人學會, IEEE 台灣女工程師學會



Women in Science & Tech Convention

Tech network for women

2024WiST

Diversity, Inclusion,
Mutual Prosperity and
Wellbeing



Together with Herstory project..

Gender in Tech:
Research and Advocacy

Digital Picture Books for domestic women role models



Global Women Breakfast with IUPAC and CSLT

Tech network
for women

2024 Global Women Breakfast
Catalyzing Diversity in Science

2024 全球女科學家早餐會

促進科學教育與理工職場多元發展之科技女力

會議日期：2024/02/27(二) 9:10-13:30

會議地點：國立成功大學 未來館3樓

活動時間	活動內容	講者
09:10 - 09:40	報到及茶敘時間	報到及茶敘時間
09:40 - 10:00	開幕致詞	
10:00 - 10:25	主題演講 (一)	台南市東區復興國小 吳婉宜老師
10:25 - 10:50	主題演講 (二)	清華大學原住民族科學發展中心 傅麗玉主任
10:50 - 11:00	座談交流 (一)	全體與會人員
11:00 - 11:25	主題演講 (三)	李長傑化工集團總經理兼營運管理組 陳以謙處長
11:25 - 11:50	主題演講 (四)	成功大學生命科學系 黃淑芬特聘教授
11:50 - 12:00	座談交流 (二)	全體與會人員
12:00 - 12:15	「吳嘉毓女科學家生涯發展獎助計畫」參與心得分享	獎助計畫參與人員
12:15 - 13:30	午餐及座談	

主辦單位：
國立成功大學化學系
中國化學會
台灣女科技入學會
國際純化學與應用化學聯合會
(International Union of Pure and Applied Chemistry, IUPAC)



報名連結



Taiwan Women E-Press

Gender in Tech:
Research and Advocacy

A monthly newsletter
Guest Editors with
Women professionals
and graduate students
A diverse array of stories
from Women in STEM

歡迎來到女科技人的美麗心世界

《女科技人電子報》將陸續新增音訊與影視媒材，敬請拭目以待

主編的話 專題報導

最新活動 特寫 一日

女科技人AI新知系列講座
08.13.2024 | 15:30-16:00
歡迎報名參加
A1 從基礎到AI新知識
A2 從基礎到AI新知識
A3 從基礎到AI新知識
《女科技人AI新知》系列講座 北高兩場熱烈報名中
2024.08.13

企業性別平等實踐典範研擬
—惠普台灣訪談摘錄
2024.05.14

數位外交一日樣貌
2024.06.12
郭玉宏 | 台灣數位外交協會 理事長

Developing Podcast from E-Press

Gender in Tech:
Research and Advocacy

By interviewing with guest editors,
more hidden stories
Better marketing and promotion.

行行出老母 8月9日

【每月特輯】女科技人的勇於創新與自我突破 | 老母與主編有約

本期電子報特別邀請到了台北市電腦公會副秘書長暨擔任客座主編，一同探討「女科技人的勇於創新與自我突破」。

本集 Fun Fact 查看更多

台灣女科技人電子報Podcast
台灣女科技人電子報
科技
收聽平台
外部連結

七月女科技人電子報客座主編-於慧璧
online

相信大家知道Elon Musk是SpaceX的創辦人，但或許不知道的是SpaceX的總裁暨營運長Gwynne Shotwell才是打造這系列運載火箭幕後重要的推手，為SpaceX開創超過百億美元的產值。

1969年阿波羅11號太空船達成人類首次登陸月球的載人太空飛行任務，當年才6歲的她懵懵懂懂覺得頗為「無聊」，哪裡想得到2002年一次與Elon Musk碰面的機會，Gwynne建議Elon思考朝商業方向來發展業務，一路走來上了總裁之位。2023年富比士雜誌評選，Gwynne列名第51位全球最有影響力的女性。

2024 GiCS 尋找資安女健思
Girls in CyberSecurity
—老母與主編有約—
本期與景地監主編對談內容：隱藏在科技背後的資安問題，台灣數位外交，以及「勇於創新與自我突破」的概念。

行行出老母，行行有景，老母的啟蒙

12

Interviews with companies

Gender in Tech: Research and Advocacy

多元·公平·共融

#Diversity #Equity #Inclusion

企業實踐做法

③ 互信與尊重下，執行彈性工時政策

除了主管與員工之間建立互相信任與尊重外，更能夠在彈性工作中賦予員工更高的自主權，並達到生活工作平衡。

例如：華資針對部門不同的彈性工時建議方案，讓員工得以達成生活工作平衡，實現互信與尊重並達成績效即可。

④ 訓練及升職不分男女

著重在員工本身的能力以及個人特質，性別不成為發展及升遷的障礙。

例如：信邦電子的「接班人培養計畫」，根據業務的「接班人計畫」。

① 成立DEI委員會

委員會關注企業內「多元、公平、共融」的議題，並邀請不同地區、國籍、性別、職級的員工參與。

② 績效決定薪資，而非性別

以工作表現及績效作為衡量薪資的主要依據，不因男女的不同做為判斷標準。

⑤ 提供優於勞基法的家庭照顧假別

工作與家庭之間都要兼顧！企業提供優於勞基法的家庭照顧假別，讓員工能夠在安心陪伴孩子。

例如：輝瑞提供優於勞基法的 60 天育兒相關假別，信邦電子提供 61 天育兒假別，友達光電提供優於勞基法的 10 天產後假及陪產假。

⑥ 建立男女共融的友善空間

除了提高女性在職場中的能見度外，同時也顧及男性員工，建立男女員工共融的友善職場環境。

例如：華資將內部語言有「男、女」的字眼進行修改，輝瑞根據建議推出「男、女工程師節」，從小細節做到共融，友達光電將空中瑜珈室原名「女子空間」改為「好空間」。

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Different sectors Innovative DEI policies

Gender in Tech: Research and Advocacy

Published in E-newsletter no. 197

根基營造

- ✓ 於 2019-2023 四年間，男女員工比從 3.37:1 縮小差距至 1.98:1。
- ✓ 性別不影響薪資！擁有經驗、績效才重要。
- ✓ 「兩層評核制」的績效評估，保障員工平等權益。
- ✓ 支持員工申請育嬰假，復職後以原職位續用。
- ✓ 「儲備幹部」與「接班人計畫」，訓練不分男女。
- ✓ 推出 LINE 男女工程師貼圖，從細節打造新氣象。

惠普 (HP)

- ✓ 「平等」為企業核心價值之一，成立 Diversity Office (多元議題部門)。
- ✓ 支持員工自發組成之多元議題發展團體，如：「LGBT」、「Woman」。
- ✓ 確保招募時的性別公平，以獲得促進女性員工發展的機會。
- ✓ 在主管與員工互相尊重、信任中，執行彈性工作政策。
- ✓ 近兩年越來越多男性員工申請育嬰假。
- ✓ 將內部政策中關於「男」、「女」的字眼進行修改。

信邦電子

- ✓ 成立 ESG 委員會，由高階主管與跨部門同仁組成小組，聆聽多元想法。
- ✓ 舉辦相關活動如：性別平等意識演講、對公司人權評鑑。
- ✓ 邀請外部顧問協助指導，檢討每季活動執行成果。
- ✓ 啟動接班人培養計劃，不論性別，主要著重於員工的能力及個人特質。
- ✓ 提供相關假期：
 1. 優於法令的 61 天產假
 2. 陪產假，額外 7 天有薪事假

友達光電

- ✓ 舉行「DEI 月」及「國際友好週」，提高主管帶頭宣示。
- 1. 增加與不同國籍同仁相處、交流的機會。
- 2. 提供「A-Team」照護，讓國際同仁在公司的教育制度中選擇管理職或專業職進修。
- ✓ 將育齡婦女分組，進行不同程度的保護與關懷，讓主管適當安排工作內容。
- ✓ 提供高隱私的哺乳室及其他婦女保健檢查如：HPV、子宮頸抹片。
- ✓ 不分男女，提供優於勞基法的 10 天產後假及陪產假。
- ✓ 男女共融，將空中瑜珈室原名「女子空間」改為「好空間」。

輝瑞 (Pfizer Inc.)

- ✓ 成立 DEI 委員會，成員包含不同地區、部門、職級、國籍以及性別。
- ✓ 男女主管比例達 1:1。
- ✓ 以績效決定薪資。
- ✓ 鼓勵說出來(Speak Up)，提出需求的文化。
- ✓ 提供新手父母多達 60 天育兒照顧相關假期。
- ✓ 以身作則，建立互信與互相理解的企業文化。

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HERStory

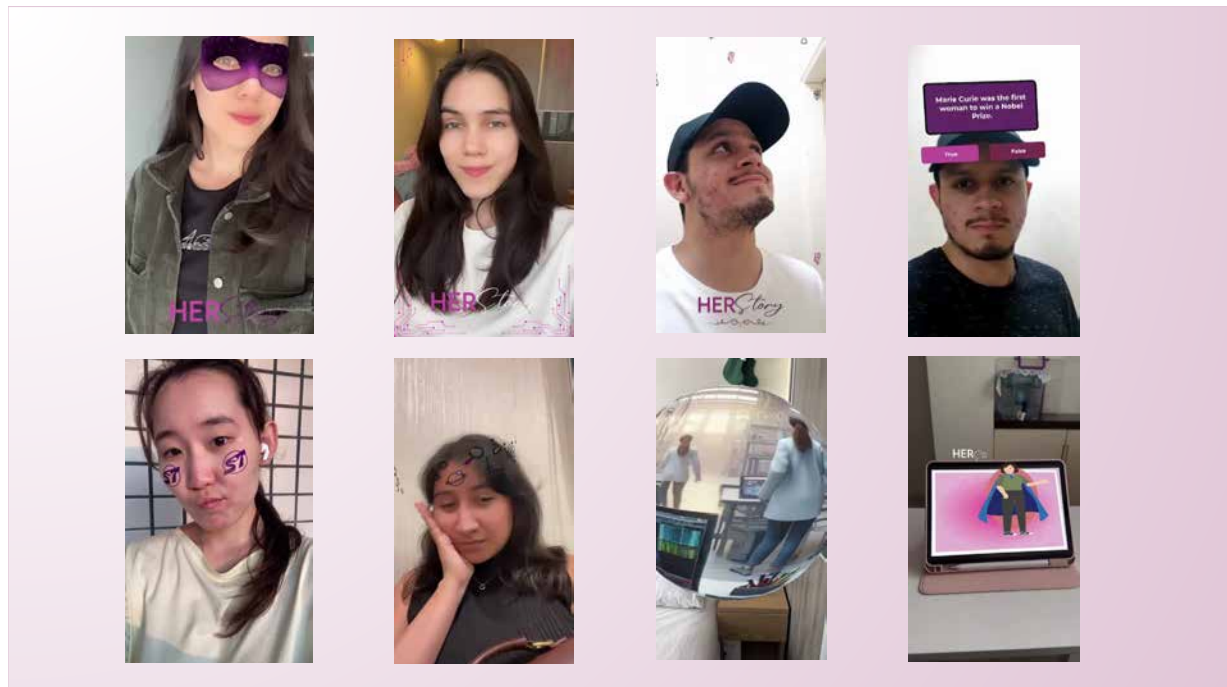
Report



HERStory

HER STORY is a project that celebrates the extraordinary women of **TWIST** (Taiwan Women in Science and Technology) and their contributions to STEM in Taiwan.

Through various mediums such as augmented reality experiences, games, posters, and videos, **HER STORY** aims to spotlight **TWIST** and its influential members. By showcasing these trailblazers, we hope to inspire girls around the world to pursue their dreams in STEM and become leaders in their own right.





COUNTRY REPORT 2024 OF VIETNAM

The Viet Nam Association for Intellectual Women (VAFIW) was born in 2011 and after 13 years of development, the Vietnam Association for Intellectual Women has grown up steadily, from 350 initial members, to now has accounted to nearly 6,000 members. Among them, there have been

- 24 Prof.
- 224 Assoc.Prof.
- 727 PhD.
- About 2000 MA
- 1 member of Parliament
- 2 Labor Heroes
- 6 Ambassadors
- 20 People's Artists and 31 Meritorious Artists

VAFIW has 8 associated members, 33 sub-associations, 07 specialized committees and 03 affiliated units.

Noteworthy, the Association has been being focused on 5 goals

- Gather and unite Vietnamese intellectual women in the country and abroad for the equality and advancement of women.
- Develop Association's branches in provinces and cities;
- Increase the roles of intellectual women in social-economic expertise activities;
- Discover, foster and honor talent and creative intellectual women;
- Strengthen and extend international activities and cooperation.

Accordingly, VAFIW is taking 5 missions

- Participate in social assessment on issues related to female intellectuals, women and socio-economic fields.
- Elaborate the science and technology research, contributing to the country's socio-economic development
- Introduce intellectual properties and innovation results of the Vietnamese female intellectual community to society and to the world
- Protect the legitimate rights and interests of members in terms of profession, and science and technology activities
- Enhance capacity through training courses for Viet Nam intellectual women.

To carry out its responsibilities, VAFIW has been being in a very strong status, accredited by the Government:

- Science and technology is one of eight areas of the national target on gender equality.
- The female scientific research human resources in Vietnam have increased (accounting for about 46% of the total research and development human resources in the country).
- Female intellectuals are a special resource for the country's socio-economic development.

Apart from that, VAFIW has been being possessed its own strength. 5 Potential Strengths are focused:

- Solidarity
- Intelligence
- Talent
- Creativity

- Dynamic

Activities in detailed that VAFIW have done over the years of 2023-2024 are reported and as seen on the screen:

- First and foremost, VAFIW organized the 3rd National Conference of Women Scientists held in Hanoi, with the theme: "Application of science and technology in life, society and community health care". 60 research reports were noted at the Conference.
- Besides, five scientific seminars to improve knowledge were also held, creating forums for female scientists to introduce their research and scientific products.
- Especially, VAFIW coordinated with the Vietnam Health Trade Union, hold the Ceremony to honor outstanding female intellectuals in the medical sector for the period 2019 - 2022 with the aim to recognize and affirm the position, role and contribution of female intellectuals in the medical sector to the cause of caring for and protecting people's health as well as the development of the country.
- VAFIW organized many training courses on intellectual property, methods of commercializing scientific research results for female scientists and ways to choose appropriate technology with the ability to receive and manage intellectual property in enterprises.
- VAFIW organized various exhibitions and direct or online introduction programs of intellectual properties and innovation results of the Vietnamese female intellectual community
- Regarding international cooperation, VAFIW participated in the International Exhibition of Women's Inventions in Korea from June 20-22, 2024 with 12 inventions and won 13 awards.
- VAFIW coordinated with the World Intellectual Property Organization (WIPO) to organize online seminars on "Licensing and Commercialization of Intellectual Property" for female scientists and innovative female entrepreneurs
- VAFIW also supported and selected female

inventors and female entrepreneurs to participate in Intellectual Property training courses organized by the World Intellectual Property Organization (WIPO) abroad with very good results.

To conclude, the Report marks 3 points as follows:

- The Vietnam Association for Intellectual Women has truly become a "common home" for Vietnamese female intellectuals.
- VAFIW has been and continues to be a responsible and reliable member of the APNN and INWEST
- VAFIW will enhance international cooperation, diversify and multilateralize national integration in science and technology with countries over the world, for national capacity and global sustainable development./.



International Network of Women
Engineers and Scientists



HỘI NỮ TRÍ THỨC VIỆT NAM

INWES – APNN CONFERENCE 2024



Ambassador, Dr. Luan Thuy Duong
Director of International Relations Committee, VAFIW



International Network of Women
Engineers and Scientists



HỘI NỮ TRÍ THỨC VIỆT NAM



COUNTRY REPORT OF VIETNAM

Hanoi, 5th October 2024

The Viet Nam Association for Intellectual Women (VAFIW)

- 5,563 members
- Including
 - + 24 Prof.
 - + 224 Assoc.Prof.
 - + 727 PhD.
 - + About 2000 MA
 - + 1 member of Parliament
 - + 2 Labor Heroes
 - + 6 Ambassadors
 - + 20 People's Artists and 31 Meritorious Artists

The Viet Nam Association for Intellectual Women (VAFIW)





The Viet Nam Association for Intellectual Women (VAFIW)

GOALS

Gather and unite Vietnamese Intellectual women in the country and abroad for the equality and advancement of women.

Develop Association's branches in provinces and cities;

Increase the roles of intellectual women in social-economic expertise activities;

Discover, foster and honor talent and creative intellectual women;

Strengthen and extend international activities and cooperation.

The Viet Nam Association for Intellectual Women (VAFIW)

MISSIONS

- Participate in social assessment on issues related to female intellectuals, women and socio-economic fields.

- Elaborate the science and technology research, contributing to the country's socio-economic development

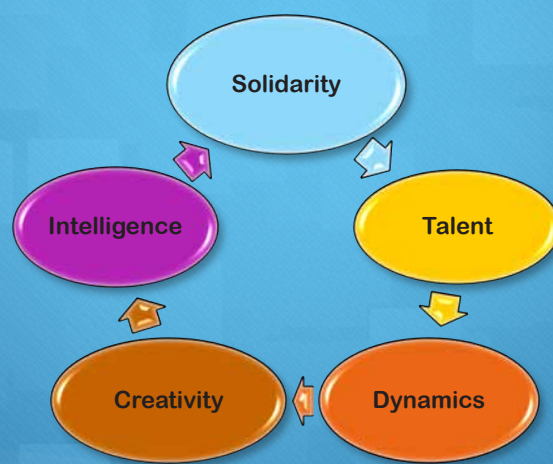
- Introduce intellectual properties and innovation results of the Vietnamese female intellectual community to society and to the world

- Protect the legitimate rights and interests of members in terms of profession, and science and technology activities

- Enhance capacity through training courses for Viet Nam intellectual women.



STRENGTH of VAFIW



STATUS of VAFIW

Science and technology is one of eight areas of the national target on gender equality.

The female scientific research workforce in Vietnam is increasing, accounting for about 46% of the total research workforce in the country.

Female intellectuals are a special resource for the country's socio-economic development.



International Network of Women
Engineers and Scientists



HỘI NỮ TRÍ THỨC VIỆT NAM

Main activities in 2023-2024

HỘI NGHỊ NỮ KHOA HỌC TOÀN QUỐC LẦN THỨ III



Tổ chức Hội nghị khoa học và Hội nghị tôn vinh các nữ trí thức ngành y có nhiều đóng góp trong ngăn ngừa dịch Covid19



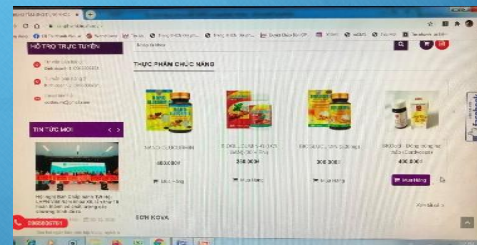
Tổ chức nhiều lớp đào tạo về sở hữu trí tuệ, Phương thức thương mại hóa kết quả nghiên cứu khoa học cho các nữ khoa học và cách thức lựa chọn công nghệ thích hợp với khả năng tiếp nhận và quản trị tài sản trí tuệ cho doanh nghiệp



Tổ chức các Triển lãm giới thiệu tài sản trí tuệ và kết quả đổi mới sáng tạo của nữ trí thức Việt Nam



Tổ chức giới thiệu trực tiếp và trực tuyến các tài sản trí tuệ và các kết quả đổi mới sáng tạo của cộng đồng nữ trí thức Việt Nam,



Đoàn nữ sáng chế Việt Nam nhận 13 giải của Triển lãm Quốc tế về Sáng chế của Phụ nữ tại Hàn Quốc từ 19-24/6/2024



Tham gia các hoạt động HTQT trong nước như: đào tạo tập huấn về SHTT với WIPO, kết nối B2B với các nước



Tham gia các hoạt động và đào tạo quốc tế về sở hữu trí tuệ





International Network of Women
Engineers and Scientists



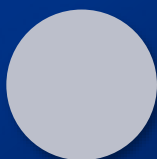
HỘI NỮ TRÍ THỨC VIỆT NAM

Vietnam Association For Intellectual Women

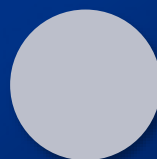
VAFIW



A "common home"
for Vietnamese
female
intellectuals.



A responsible and
reliable member of
the APNN and
INWEST



For national
capacity and
global sustainable
development



IV. AGENDA/PROGRAM

INTERNATIONAL NETWORK ON WOMEN ENGINEERS AND SCIENTISTS

ASIA-PACIFIC REGION (INWES-APNN) 2024

(Hanoi, 4th -5th October 2024)

AGENDA

Friday, 4th October 2024	INWES APNN International Conference “ The Role of Women in Science & Technology and International Integration for Sustainable Development”
7:30-8:30	Registration
8:30- 9:00	Cultural Performances
9:00-10:30	Opening session <ul style="list-style-type: none"> - Opening speech of VAFIW’s President, Prof. Le Thi Hop - Welcome Speech of President of the Vietnam Women’s Union, Mrs. Ha Thi Nga - Welcome Speech of INWES President, Dr.Sarah M.T.Peers - Speech by INWES APNN Chair, Dr. Juana T. Tapel, - Keynote Speech by Mrs. Nguyen Thi Thanh, Member of the Central Party Committee, Vice-Chairman of the National Assembly
	Photo session
10:30 -11:45	- Exhibition Opening Ceremony and visit exhibition
12:00-13:30	Lunch
13:30-17:00	Scientific conference (parallel session) <p>Panel meeting 1: Gender and STEM (Annex 1)</p> <p>Co-chairs: Prof. Jung Sun Kim Amb. Nguyen Phuong Nga</p> <p>Reporters: Engr. Mah Siew Kien Amb. Dr. Luan Thuy Duong</p>



	<p>Panel meeting 2: Health and Environment (Annex 2)</p> <p>Co-chairs:</p> <p>Prof. Dr. Le Mai Huong</p> <p>Mrs. Shun-Lien Sung</p> <p>Reporters:</p> <p>Dr. May Rose Imperial</p> <p>Asc.Prof. Dr. Le Phuong Hoa</p>
18:00-21:00	Gala Dinner
Saturday, 5th October 2024	2024 INWES-APNN Annual Meeting
8:30-9:00	<p>Opening session:</p> <ul style="list-style-type: none"> - Welcoming speech by Prof. Nguyen Thi Doan, Former Vice-President of Viet Nam, President of Vietnam Association for Promoting Education, Honorable President of VAFIW - Speech by Mr. Jonathan Baker, UNESCO Representative - Keynote Speech of INWES President Sara Peers (10min) - Reports of two panels summary (May Rose Imperial) - Introduction HER story program by Roseni Dearden (15min)
9:30-11:30	<p>Country report session</p> <p>Co-Chairs:</p> <ul style="list-style-type: none"> - Dr. Juana T.Tapel, APNN Chair - Prof. Le Thi Hop, VAFIW President <p>APNN Country Reports (in alphabetical order 10 mins)</p> <ol style="list-style-type: none"> 1. WISE-India by Mr.Dillip Pattanaik, Executive Director 2. JNWSE by Ms. Jun Hashimoto, Member 3. KWSE by Dr. Hyewhon Rhim, President 4. IEM by Ir.Ts. Siew Kien Mah, Vice Chairman, WES 5. WSTEM by Prof.Ariunbolor Purvee, Vice President 6. MES-WE by Dr. Khin Sandar Tun, Advisor 7. WISE-Nepal by Mr.Dekesh Maharjan, Finance Manager and Controller



**International Network of Women
Engineers and Scientists**



	<p>8. PTC- Philippines by Carina de Vera Pecson, Vice President</p> <p>9. WISE-Sri Lanka by Nilusha Perera, Secretary</p> <p>10.TWiST by Prof. Chao-Ping Hsu, Vice President</p> <p>11.VAFIW by Amb.Dr. Luan Thuy Duong, Director, International Relations Committee</p>
11:30-12:00	<p>INWES APNN AGM (Annex 3) (50 minute)</p> <p>-KWSE present detail APNN (10 minute)</p>
12:00- 12:30	<p>Close ceremony</p> <p>-Remark by Prof. Hop for closing message (5 min)</p> <p>-Handover to 2025 INWES APNN Meeting Host (10 min) by Juana Tapel APNN Chair (VAFIW to KWSE)</p> <p>- Acceptance speech by KWSE(5min)</p> <p>- Thank-you speech by Ambassador. Nguyen Thi Hoi,VAFIW Vice-President, Head of Organizing Committee</p> <p>- Group photo members</p>
12:30-14:00	Lunch
14:00-16:00	Visit Viet Nam Space Center, Hoa Lac High-tech Park
16:00	Back to ASEAN Resorts and 68 Nguyen Chi Thanh
18:00	Dinner by invitation at ASEAN resorts

ANNEX 1

PANEL MEETING 1: GENDER AND STEM

(Hanoi, 04/10/2024)

PROGRAM

Keynote speaker:

Dr. Jung Sun Kim, Past President, INWES & Exec. Vice President, Dongseo University

"STEM Culture and the Gap in Gender Barrier Perceptions"

Speakers:

1. Prof. Battengel Baatar, Board Member of INWES and Women in Science, Technology, Engineering and Mathematics (WSTEM), Mongolia

"Factors Influencing the Gender Gap in Science and Technology in Mongolia: An Analytical Review"

2. Prof. Yoko Nameki, Professor at Chuo University

"Unconscious Bias in STEM: Effects on Female Career Choices and AI Integrity"

3. MSc. Le Thi Khanh Van, Director of S & T Application and Startup (COSTAS), VAFIW

"STEM Education and Women STEM in Vietnam"

4. Dr. May Rose Imperial, Project Manager, Philippine Technological Council- 7

"Forging Sustainable Future: Assessing the Impact of the W.I.S.E.R Project on Future Women Engineers in Renewable Energies"

5. Prof. Rie Yamaguchi, Aoyama Gakuin University

"Literature Review on Information Systems and Women Engineers: Focusing on Gender Identity"

6. Ms. Megh Ranjani Rai, Technical Specialist DRR and Gender

"Women's Leadership in Emergencies-Challenges and Opportunities and the Role of Women Engineers in Humanitarian Response"

7. Dr. Lam Thi Loan, University of Khanh Hoa

"Women leaders in STEM fields in Khanh Hoa province- Current situation and solution"

8. Prof. Dr. Nguyen Thi Hoang Yen, Hanoi Association for Intellectual Women

"Development of technical thinking for girl student by STEM teaching in high school"

9. Ir. Rusnida Binti Talib, Women Engineer Section, Institution of Engineers Malaysia

"Critical Strategies to Encourage Women Involvement in Science, Technology, Engineering and Mathematics (STEM) in Malaysia"

Ming-Hsiu Mia Chen, College of Technology and Engineering, National Taiwan Normal University

"In HER EYES, Indigenous Female Students' Perception of Scientists"

Co-Chairs:

Prof. Jung Sun Kim
Amb. Nguyen Phuong Nga

Recorder:

Engr. Mah Siew Kien
Amb. Dr. Luan Thuy Duong

ANNEX 2

PANEL MEETING 2: HEALTH AND ENVIRONMENT

(Hanoi, 04/10/2024)

PROGRAM

Keynote speaker:

Prof. Chao-Ping Hsu, Institute of Chemistry,
Academia Sinica, Vice-President, TWIST

"The Women in Science & Technology Convention
in Taiwan: A Four-Year Journey on DEI and ESG
(2021-2024)"

Speakers:

1. Prof. Kong-Joo Lee, Ewha Women University,
Korea

"JIPHYUN Network as a platform providing
reliable scientific and technological information
on health, climate changes, and food &
agriculture"

2. Prof. Nguyen Thi Lang, High Agricultural
Technology Research Institute (HATRI)

"Solutions to reduce the risk of damage to
the rice industry under the impact of climate
change"

3. Asc. Prof. Dr. Truong Tuyet Mai, Vietnam
National Nutrition Institute

"Healthy diets, reducing environmental impact
and ensuring a sustainable food system in
Vietnam"

4. Nguyen Thi Anh Duong, Vietnam Academy of
Science and Technology

"Effects of land-use intensity on free-living
terrestrial nematode communities from tropical
forest soil in Viet Nam"

5. Prof. Dr. Ts. Urantsetseg, Mongolian University
of Science and Technology

"The Possibility of Using the Eco Insulation
Material of Mongolia Sheep Wool in Green
Building"

6. Prof. Dr. Vu Thi Thu Ha, National Key Lab. for
Petrochemical and Refinery Technology (MOIT)

"Some research orientations on developing the
process towards a carbon neutral economy"

7. Mrs. Azusa Akiyama, Chief Manager, Hitachi
System Japan

"The Pivotal Role of Middle-Aged Women as
Mentors and Role Models"

8. Asc Prof. DrSc. Pham Thi Thanh Nga, Vietnam
Institute of Meteorology, Hydrology and Climate
Change

"Climate Change and Disease Risks: Developing
an Early Warning System Model for Dengue Fever
Response in Vietnam"

9. Truong Thi Giang, Faculty of Health Sciences,
Dong Nai Technology University

"Survey on antibiotic resistance levels of
escherichia coli causing bloodstream infection at
Dong Nai general hospital 2023-2024"

10. Engr. Ryo Kimura, Architect & Rural
Environment Development Engineers, JNWES

"Learning Sustainable Development from
Traditional Japanese Techniques"

11. Prof. Dr. Le Mai Huong, VAFIW

"The combination of mushrooms and medicinal
plants can reduce cognitive decline and protect
your brain"

Co-Chairs:

Prof. Dr. Le Mai Huong
Mrs. Sun-Lien Sung

Panel reporters:

Dr. May Rose Imperial
Asc.Prof.Dr Le Phuong Hoa



International Network of Women Engineers and Scientists

... building a better future worldwide

Agenda of the INWES APNN Annual General Assembly

October 4, 2024

NIC, Hanoi, Vietnam

1. Opening of the General Assembly session	Chair Juana T. Tapel INWES APNN Cluster
2. Short prayer or meditation	Estrellita Bordallo
3. Credentials of representatives	Dr. Evelyn Laurito
4. INWES APNN Cluster Strategic Plan	Dr. May Rose C. Imperial
5. INWES APNN Cluster Functional Structure	Chairperson, APNN Cluster
6. Reports of the Functional Committees	
a. Media & Communications	Dr. Syuhaida Ismail/ Estrellita Bordallo
b. Finance	Shun-Lien Shung
c. Capacity Building	Jun Dongol Hada / Emie Dela Cruz
d. Membership Recognition of ATSE's Membership	Heng Lee Sun and ATSE Representative
8. 2025 INWES APNN Conference and Meeting Host	Ariunbolor Purvee
9. Turnover of Conference Committee Chair	Le Thi Hop, VAFIW Hyewhon Rhim, KWSE
10. Other Matters Service Award Guidelines	
11. Message of Thanks	Amb. Nguyen Thi Hoi, Vietnam

V. HA NOI RECOMMENDATION



2024 INWES APNN CONFERENCE

"THE ROLE OF WOMEN IN SCIENCE AND TECHNOLOGY AND INTERNATIONAL INTEGRATION FOR SUSTAINABLE DEVELOPMENT"

4 – 5 October 2024

HA NOI RECOMMENDATION

Preamble

We, the intellectual women of the International Network on Women Engineers and Scientists in Asia and Pacific Region attending the 2024 INWEST APNN Conference, held in Ha Noi, Viet Nam from 4th to 5th October 2024 under the theme "The Role of Women in Science and Technology and International Integration for Sustainable Development";

Express our appreciation to the Viet Nam Intellectual Women Association for hosting the 2024 INWEST APNN - Asia Pacific Regional Conference and the strong support received from the leadership of the Socialist Republic of Viet Nam, including the Viet Nam Women Union, to both the Asia Pacific Regional Conference and to the Network;

Welcome the participation of the all delegations from the INWEST – APNN and other

observers;

Recall the Outcomes' Regional Conference in 2023, hosted by Taiwan Women in Science and Technology (TWIST) in Taiwan and congratulate the achievements and best practices in the region, both collectively and individually in implementing 2023 Conference's Outcome;

Express concern that women have been underrepresented in STEM for many years, both in university and in industry in the region and the increasing impacts of climate change and conflicts, which have had devastating global implications and severe health and socio-economic impacts on people in Asia Pacific;

Highlight that the INWES-APNN network has become an important forum for female scientist and engineers to share experiences, best practices from one to another and work



together to solve the common challenges; reaffirm that advancement and achievements are always through a collective effort and respect; focus on cultural perspectives and societal expectations.

Recognise the importance of gender equality and gender action plan to catalyse capacity-building initiatives in women's full participation and leadership in science, technology, research & development and Integration for Sustainable Development; the importance of women in general and female scientists and engineers in particular in the decision making, leadership.

Recognise that we are now in an era of accelerating climate risk and are already experiencing impacts in our communities and in our Asia Pacific region;

Inline with our focused discussions on how to empower women in STEM and Research & Development as well as International Integration for Sustainable Development

We, the active members of INWEST – APNN in the Ha Noi Recommendation in 2024 Conference:

Agree that we must work together to find solutions and put into action on women empowerment, especially in the areas of STEM and Research & Development, through increasing opportunities for the continuous knowledge and skill development of women and girls, and give opportunities their involvement in regional cooperation and collaborations;

Re-commit to ensuring of INWEST – APNN are diverse and inclusive organisations, with specific emphasis on women empowerment.

Emphasize the importance of policy support to create an inclusive environment that promotes diversity and drives innovation within the engineering sector. Gender diversity, as

mentioned in the presentation, is crucial for social equity and economic growth, benefiting both individuals and the broader community.

Provide mutual support in knowledge and experiences sharing and discussion through peer to peer support to scale up our regional cooperation and collaboration ensuring accountability, transparency and continuity; Encourages to have more space for creativity, and leadership support networks is vital for women's success in STEM.

Recommend that the INWEST – APNN will consider to raise funds for carrying out a study on equality between women and men, focusing on women's participation in scientific and technological activities as well as promote the development of out-of-school science and technology education for women, in Asia Pacific region, to be carried out by the INWEST, with support of all its countries' members.

Postamble

We, the countries' members of the INWEST - APNN agree to prioritize practical implementation of the Ha Noi Recommendation, taking into account the diversity of the region and ensure effective implementation according to the Recommendation.

We agree that the 2025 Regional Conference will be organized in the Philippines

Endorsed and adopted on 5th October 2024.



International Network of Women
Engineers and Scientists



Le Thi Hop
Le Thi Hop

JACAM PEERS
JACAM PEERS

PTC-WEN
PTC-WEN

WIN MON MON LWIN
WIN MON MON LWIN

Wise-SL
Wise-SL

WSTEM
WSTEM

IEM Malaysia
IEM Malaysia

INWES
INWES

Chau-ping Hsu TWIST
Chau-ping Hsu TWIST

WISE-NEPAL
WISE-NEPAL

OSVSA - women in STEM
OSVSA - women in STEM

ICWEE
ICWEE

VI. PHOTOS





