



NEWS RELEASE

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New programme to encourage more women to pursue education and careers in STEM

Only 58% of women who graduated with STEM degrees or diplomas have a STEM career, finds NTU study

Two women professors from **Nanyang Technological University, Singapore (NTU Singapore)** are launching a new programme aimed at encouraging more women to pursue their studies and careers in the fields of Science, Technology, Engineering and Math (STEM).

Known as **POWERS (Promotion of Women in Engineering, Research, and Science)**, the programme aims to recruit and empower women with a long-term goal to increase gender diversity in STEM careers. This will be achieved through creating a supportive ecosystem, conducting research to address barriers, and providing education and skill building opportunities for career advancement in STEM.

Funded by Singapore's Ministry of Education, POWERS was officially launched today by **President of Singapore, Her Excellency, Madam Halimah Yacob**, and **NTU President Prof Subra Suresh**, at the biennial Women in Engineering, Science & Technology (WiEST) symposium, held at the Lee Kong Chian School of Medicine, Clinical Sciences Building, at NTU's Novena campus.

POWERS is driven by *Women@NTU*, a voluntary initiative co-founded by **Assoc Prof Sierin Lim**, Associate Dean (Global Partnerships), Graduate College and **Assoc Prof Kimberly Kline**, Associate Dean (Faculty), College of Science. POWERS is supported by NTU's College of Engineering, College of Science, and Graduate College.

Organised by Women@NTU, WiEST 2021 celebrates notable female role models, seeking to inspire and engage women who are considering a STEM career and to connect students with industry partners, with the long-term goal of increasing gender diversity in the STEM workforce.

Assoc Prof Sierin Lim, Co-Chair of WOMEN@NTU, said the new POWERS programme shows the continued support from NTU, industry, and the Singapore government in gender diversity.

“Our programmes are designed to create a supportive ecosystem to empower women to enter and develop successful careers in STEM industries. We want to provide them with enhanced networking activities, as well as mentoring them towards opportunities in STEM careers.” said Assoc Prof Lim.

“The strong support and collaborations with STEM partners, from education, industry, and the government, are essential to the success of the programme. Together, we can develop women for future leadership in STEM.”

Professor Louis Phee, Dean of NTU’s College of Engineering, said, “As a male ally and member of the advisory board of Women@NTU, I believe men can be a compelling catalyst for other men to engage in equitable practices to support women empowerment. We can help provide women with a sense of belonging and purpose in STEM, especially in the male dominant engineering field. We can create a long-lasting sustainable impact leading to greater diversity and attract more women to pursue their education and careers in STEM.”

The theme of the symposium this year is *'Empowering Women in STEM'*, and it features keynote speaker, **Prof Jo Handelsman**, Director of the Wisconsin Institute for Discovery, a leading researcher in microbial science.

This symposium also showcases esteemed speakers from A*STAR, European External Action Service, Illumina, and ISREC Foundation, who will share their research innovations, discoveries, and aspirations in STEM. Panellists consisting of representatives from the Ministry of Education, NTU, Boston Consulting Group, and tech giant HP, will also discuss diversity and a call to action to propel women in STEM.

Study finds women less likely to pursue STEM careers

In conjunction with the launch of POWERS, key findings from research conducted by POWERS on *“Closing the STEM gender gap in Singapore”* was presented at the WiEST symposium.

In the study, the POWERS team surveyed a nationally representative sample of 738 Singaporeans to understand the gender gap in STEM careers in Singapore. The study found that only 58 per cent of women who graduated with a STEM diploma or degree went on to work in a STEM field, compared to 70 per cent of men with the same qualifications. This is despite women and men expressing equal career interests consistent with STEM jobs.

Women who left the STEM career pathway were more likely than men to perceive barriers of inclusion and career advancement. This finding is consistent with other international research which found that women are more interested in STEM education and careers when they believe they belong and can succeed in STEM.

To close the gender gap in STEM, the whitepaper suggests that stakeholders promote a culture of inclusivity for women in STEM, change gender-based stereotypes, and dismantle barriers of participation in the STEM workforce.

Agency for Science, Technology and Research (A*STAR) reported that less than 30 per cent of research scientists and engineers in Singapore are women¹, with a salary gap where females are paid about 6 per cent less² than men.

Assoc Prof Lim said their findings highlighted that gender diversity in STEM is important, as complex problems in today's world require diversity in perspective and approaches, and it is also key to Singapore's economic health. However, there are few studies conducted in Singapore to understand gendered interests and careers in STEM, she added.

POWERS's three-pronged approach

As the Singapore government implements policies to support economic recovery from the pandemic, it is timely to examine how to close the STEM gender gap in Singapore. Increasing the representation of women in STEM fields has been forecasted to boost the business-as-usual annual GDP by 1.9%³.

POWERS plans to promote diversity in STEM through three key activities: **Connect, Research and Educate**. The pilot programme will connect students to the STEM community, conduct research to develop data-driven approaches with local context, and work with educators and the community, to build a supportive ecosystem for women, from pre-university to postdoctoral levels, enabling them to thrive, advance and succeed in STEM.

Assoc Prof Kimberly Kline, Co-Chair of WOMEN@NTU, added, "Our new mentorship programme is uniquely designed to empower young women in STEM through leadership training and community building. Our mentors are trained to motivate, support and inspire women to pursue and achieve their goals. We want the next generation of women to view themselves as agents of change as they utilise their STEM education to address global challenges. We are building a community of high-achieving women because we believe that we are stronger together."

¹ A*STAR (2018).

² <https://stats.mom.gov.sg/Pages/Singapores-Adjusted-Gender-Pay-Gap.aspx>.

³ McKinsey Global Institute (2018).

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Note to Editors:

The whitepaper titled “*Closing the STEM gender gap in Singapore*”, will be published later this year.

For more information, please visit:

- 1) <http://www.ntu.edu.sg/graduate-college/womenatntu/>
- 2) <https://www.ntu.edu.sg/graduate-college/womenatntu/powers/>

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About Nanyang Technological University, Singapore

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 33,000 undergraduate and postgraduate students in the Engineering, Business, Science, Humanities, Arts, & Social Sciences, and Graduate colleges. It also has a medical school, the Lee Kong Chian School of Medicine, established jointly with Imperial College London.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies, Earth Observatory of Singapore, and Singapore Centre for Environmental Life Sciences Engineering – and various leading research centres such as the Nanyang Environment & Water Research Institute (NEWRI) and Energy Research Institute @ NTU (ERI@N).

Ranked amongst the world’s top universities by QS, NTU has also been named the world’s top young university for the last seven years. The University’s main campus is frequently listed among the Top 15 most beautiful university campuses in the world and it has 57 Green Mark-certified (equivalent to LEED-certified) building projects, of which 95% are certified Green Mark Platinum. Apart from its main campus, NTU also has a campus in Singapore’s healthcare district.

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources. For more information, visit www.ntu.edu.sg