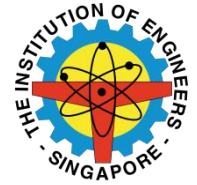


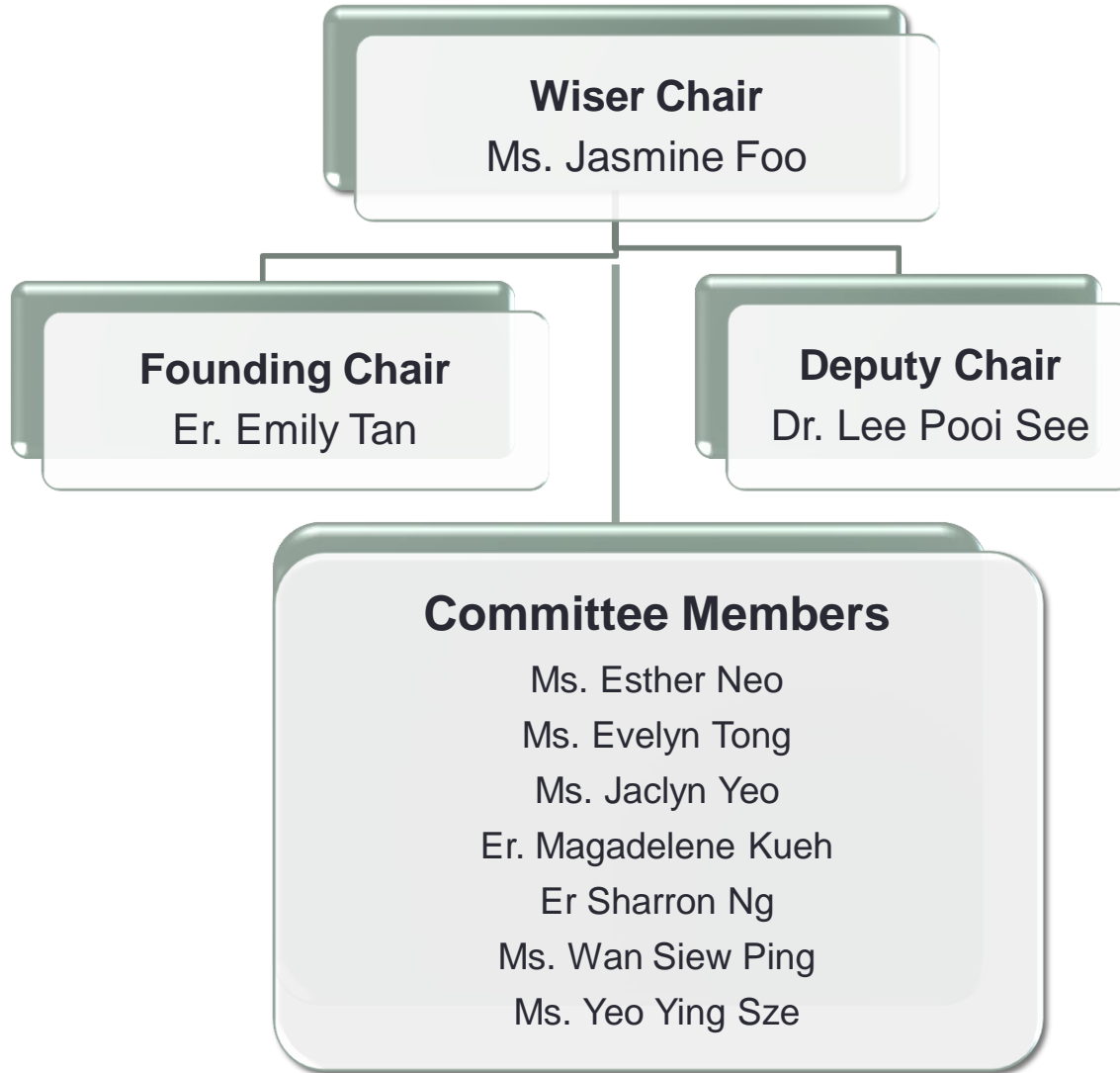
# IES WOMEN IN SCIENCE, ENGINEERING & RESEARCH (WISER) 2018

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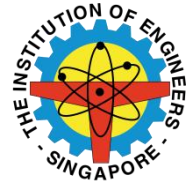
AFEO Presentation 2018



# Organisation Chart



# WiSER Main Areas of Focus

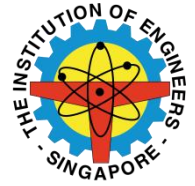


## 1. Nurture Women Leaders

**A strong societal push for women in leadership position and corporate representation.**

**Activities will include high-level networking lunches with prominent women leaders in engineering and technology as well as conducting Corporate Leaders seminar and grooming young engineers through mentorship.**

# WiSER Main Areas of Focus

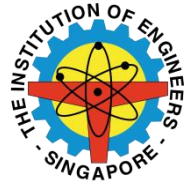


## 2) Conferences & Events

**To provide opportunities for women's presence in major events and conferences, and to cater to their special requirements/issues**

## 3) Interest & Promotion

**In line with promotion of engineering, to also focus on young women, by targeting girls schools and work with the universities (such as SUTD who has a KPI of 40% female engineering target) and to support IES parallel programmes such as National Engineers Day and World Engineers Summit)**



# Statistics

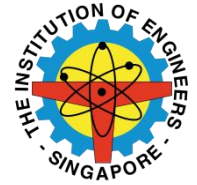
## Overview

### Engineering is The New Black

Society is coming to realize that engineering skills are an important foundation for a multitude of careers. Five of the top ten skills most in-demand by Singapore's employers – and the skills [most likely to get you hired in 2017](#) – come under the engineering umbrella.

Prime Minister Lee [remarked](#) how Science, Technology, Engineering, Mathematics – STEM field – is not only regaining its shine among young adults in Singapore, but are also heavily required in Singapore for the next 50 years. Case in point, the Smart Nation Programme. MCI's Minister Yaacob Ibrahim anticipated [30,000 tech engineering jobs](#) to be filled by 2020.

[\*\*https://digitalsenior.sg/engineering-courses-in-singapore/\*\*](https://digitalsenior.sg/engineering-courses-in-singapore/)



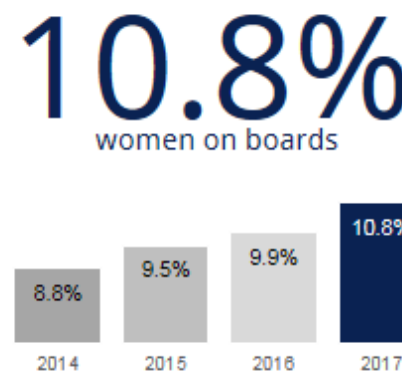
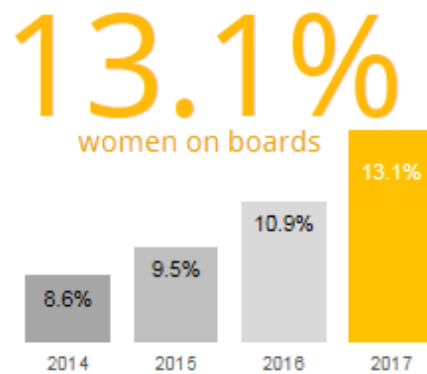
# Statistics

Singapore's Diversity Action Committee ("DAC") announced on 13 February 2018 that the appointment of women directors had seen a 20% increase in 2017, moving up to 13.1% of all directorships for the top 100 primary-listed companies on the Singapore Exchange ("SGX") by market capitalisation ("Top 100 companies"). This is the highest increase over the past three years, after 10.9% in 2016, 9.5% in 2015 and 8.6% women on board in 2014.

## Summary of Statistics as at 31 December 2017



Top 100 companies led the way in increasing women on boards in Singapore



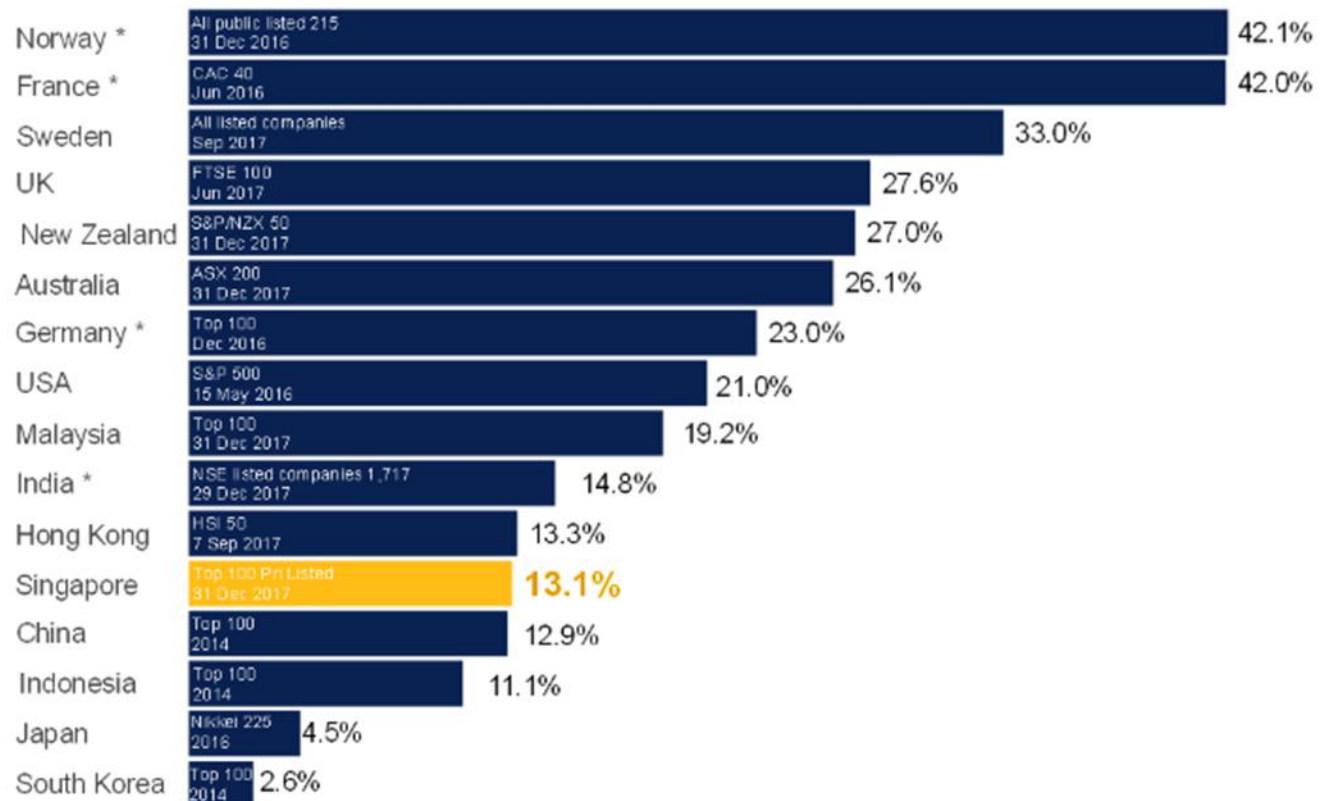
<http://www.diversityaction.sg/statistics/as-at-dec-2017/>

# Statistics



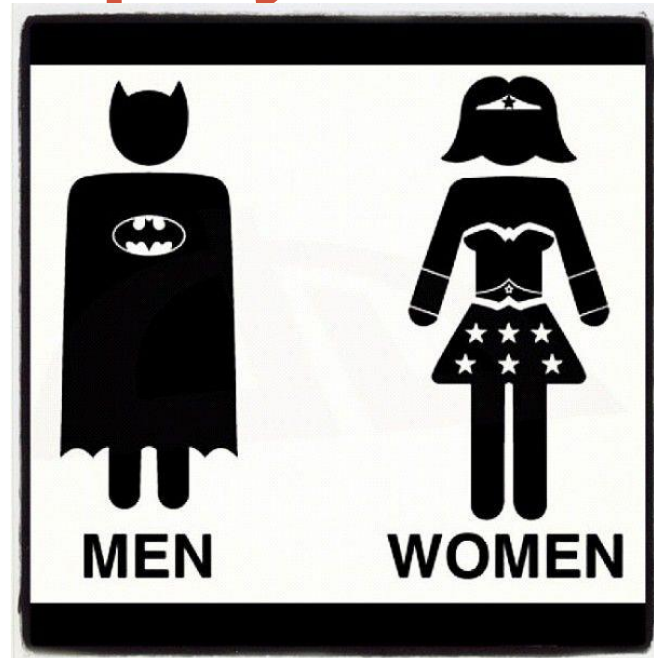
Singapore trails behind other centres on international comparison on women's representation on board (WOB).

Figure 1: International comparison of WOB



<http://www.diversityaction.sg/statistics/as-at-dec-2017/>

# Membership by Gender

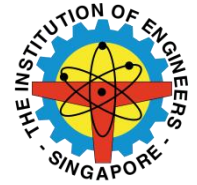


Male	Female	Total as at June 2018
5220 (91%)	9% (562)	5782

IES membership is largely male dominated with 91% male engineers versus 9% women engineers.



# 2017 Activities



## Art of Fermentation



**Art of Fermentation**  
16 February 2017

This event is proudly organized by Women in Science, Engineering and Research (WISER).

*Want to know more about food fermentation and how it all came about? How some fermentation processes have evolved into big scale industrialization through the use of starter cultures and controlled manufacturing parameters?*

Come and join us for some networking opportunities and learn all about the **Art of Food Fermentation!**

**Guest Speaker**  
**Dr Daisy Lai**  
Nestle Quality Assurance Centre  
Zone AOA Senior Industrial Hygiene Expert

**Where :** National Library, Singapore  
100 Victoria Street, Singapore 188064  
(Imagination Room – Level 5)

**When :** 16 February 2017

**Time :** 6.45 pm to 9.00 pm

**Fees :** \$20 IES Members, \$25 General Public

RSVP: Click [HERE](#) for online registration by 2<sup>nd</sup> Feb 2017  
For enquiries, please email [low.peiqi@iesnet.org.sg](mailto:low.peiqi@iesnet.org.sg) or call Pei Qi at 64611224.



## Facebook LivechatThe Art of Fermentation on 29 March 2017



### Science and Engineering: Fair Game for Both Sexes

Be inspired by Er. Emily Tan, a woman engineer, entrepreneur and leader. Learn her thoughts on women issues in the Science, Technology, Engineering and Mathematics (STEM) field.

# 2017 Activities

WiSER Forum on 20 July 2017



On 20 July 2017, we had organised the WiSER Forum. There were 4 inspiration talks in session one and 3 technical talks in session 2. We were honoured to have Ms. Jean Venables (Vice President of World Federation Engineering Organisation) with us during our Q&A session.

WiSER Year End Party on 29 December 2017



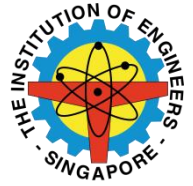
# 2017 Activities

WiSER Participants took part in IEM Run 2017



On 20 Aug 2017, three WiSER ladies participated in the Institution of Engineers Malaysia Run held at Perdana Botanical Garden (Kuala Lumpur). Ms Esther Neo came in 2<sup>nd</sup> place in the 5km Women's Category)

# 2018 Activities



Date	Event
26 Jan 2018	Focus Group Meeting for Female Engineers
8 Feb 2018	Addressing Cyber Threats and Risks While Embracing Emerging Technologies
28 April 2018	Technical Tour of National Gallery Singapore
31 Aug 2018	Technical Tour of Kim Chuan Depot (World's Largest Underground Depot ) by SMRT
12 to 14 Nov 2018	CAFEO 36 in Singapore

# 2018 Activities

## Focus Group Meeting for Female Engineers



On 26 Jan 2018, WiSER's Ms Wan Siew Ping (Senior Manager of Singapore Institute of Manufacturing Technology, SIMTech) was invited to be a speaker at a Focus Group Meeting for Female Engineers to discuss engineering as a career of choice, organised by NTUC U Associates.

Ms Wan shared her interesting story and struggles as a female engineer, starting out in the 1980s, where female engineers in the Precision Engineering field was unheard of.

# 2018 Activities

## Addressing Cyber Threats and Risks while Embracing Emerging Technologies



**ADDRESSING CYBER THREATS & RISKS WHILE EMBRACING EMERGING TECHNOLOGIES**

**2 PDU APPROVED**

*The key to a common future is to advance with emerging technologies. As these technologies enter the market, they transform our lives with a vast range of benefits. But as the rate of innovation accelerates, how can we understand the threats and risks that come along with it? How can we embrace the nature of technological change in the new industry?*

*Learn from our guest speakers and have your say in this talk, specially organized by IES Women in Science, Engineering & Research (WiSER) Committee and NTUC U Associate.*

8 February 2018, Thursday  
6.00 pm – 9.00 pm

\$25 IES / NTUC / UA Members  
\$35 Non-member

The Institution of Engineers,  
Singapore  
Training Room (Level 2)  
70 Bukit Tinggi Road  
Singapore 289758

Click [HERE](#) for online registration by 4 Feb 2018.

For enquiries, please contact Pei Qi at [low.peiqi@iesnet.org.sg](mailto:low.peiqi@iesnet.org.sg) / 64611224

The Cyber Threats and Risks Seminar was jointly organised by WiSER and NTUC U Associate on 8 Feb 2018. Speakers were WiSER's Ms Jaclyn Yeo (Senior Research Analyst within Marsh & McLennan Companies Asia Pacific Risk Center) and Mr John Lim (Lecturer of Nanyang Polytechnic on Cyber Security and Forensics and Past President of ISACA).

# 2018 Activities

## Technical Tour of National Gallery Singapore



**National Gallery Singapore**

28 April 2018  
10.00 am – 11.30 am

The **Women in Science, Engineering & Research Committee (WiSER)** is proud to organise a historical and engineering tour at the National Gallery Singapore!

The National Gallery Singapore was a key architectural landmark from Singapore's colonial past and journey into independence. Between 2011 and 2014, construction works were carried out to one of most extensive conversion and restoration works to a cherished landmark in Singapore, inclusive of the installation of link bridges that connect City Hall and the former Supreme Court building. Today, the National Gallery Singapore is a visual arts institution which oversees the largest public collection of modern art in Singapore and Southeast Asia.

Come experience the restoration efforts to one of Singapore's most popular museum! To avoid disappointment, please register early as slots are limited to the first 20 participants.

**\$25 Member // \$35 Non-member**  
\*Additional charges apply for non-locals

Click [HERE](#) for online registration by 24 April 2018.  
For enquiries, please email [low.peini@resnet.org.sg](mailto:low.peini@resnet.org.sg) or call Pei Qi at 64611224.



WiSER organised a technical tour of the National Gallery on 28 April 2018. The tour focused on the restoration efforts of the City Hall and former Supreme Court buildings, both of which are national monuments that played a significant role in Singapore's history. The tour consisted of two parts, namely a docent-led tour followed by a technical sharing of the strengthening work to the building structures during restoration.

# 2018 Activities (Upcoming)

Technical Tour to Kim Chuan Depot (World Largest Underground Rail Depot)

**WORLD'S LARGEST UNDERGROUND DEPOT VISIT**  
JOIN US ON 31 AUGUST 2018 1.45pm to 5.30pm  
Paya Lebar MRT Station (CCL)



**TECHNICAL VISIT TO KIM CHUAN DEPOT**  
Take a glimpse of the operations in the world's largest underground depot through the technical tour of the Kim Chuan Depot (KCD) organised by Women in Science, Engineering and Research Committee (WISER) of IES and NTUC.  
KCD is the world's first underground train depot supporting heavy driverless train operations. Come witness the daily operations at the underground infrastructure, spanning 12Ha of land, which supports the critical systems such as power, signalling, station and tunnel equipment, security surveillance, ticketing and public announcements.  
Participants will also enjoy an exclusive train ride from Paya Lebar MRT station into KCD.  
**Not to be missed!** To avoid disappointment, please register early as slots are limited to the first 25 participants.

525 member // 53% Non-member  
Jointly Brought To You By:  
Click [HERE](#) for online registration by 24 August 2018.  
For enquiries, please email Lyuan at pang.ly@iesnet.org.sg / 64611224.



**12 - 14 November 2018**  
**Resorts World Sentosa, Singapore**

**IEM ENGINEER'S RUN 2018**



**12th August 2018**  
Pusat Sukan UPM, Serdang  
7.00 am - 12.00 pm

**5KM RUN 10KM OPEN RUN**

1250M

