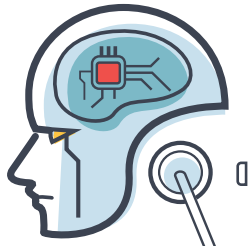


I CAN ENGINEER
SOLUTIONS FOR



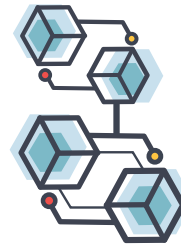
SP
ENGINEERING
SHOW 2019



CONTENTS



Co-Chairmen's Message	1
SP Engineering Show Working Committee	2
SP Engineering Show Student Committee	3



CleanTech & Built Environment



4

Healthcare & Wellness



11

Industrial & Automation



14

Infocomm & Media



18

Transport & Mobility



25

SP Tech To Market



31

SP FabLab



35

Other EEE Projects

38

Points of Contact

40



CO-CHAIRMEN'S MESSAGE



WELCOME TO THE SP ENGINEERING SHOW 2019

(From left to right)

LECK HWANG KENG

Co-Chairwoman
SP Engineering Show Steering Committee

Assistant Director

School of Electrical & Electronic Engineering

DUNCAN SIH WEI CHEONG

Co-Chairman
SP Engineering Show Steering Committee

Deputy Director

School of Mechanical and Aeronautical Engineering

TAN ENG LEE

Co-Chairman
SP Engineering Show Steering Committee

Centre Director

TIE-Digital Healthcare Innovation Centre

Welcome to the SP Engineering Show 2019.

This annual exhibition provides an interactive platform between our final year students from six academic schools - School of Architecture & The Built Environment, School of Chemical Life Sciences, School of Computing, School of Electrical & Electronic Engineering, School of Mechanical & Aeronautical Engineering and the Singapore Maritime Academy - and our industry partners, current polytechnic students, as well as secondary school visitors.

Through the application of CDIO (Conceive, Design, Implement, Operate), the students are able to present engineering solutions to real-life problems, share the challenges they faced with fellow poly-mates and secondary school visitors, and receive feedback & advice from industry partners.

The SP Engineering Show 2019 features industry solutions under the themes of 'CleanTech & Built Environment', 'Healthcare & Wellness', 'Industrial & Automation', 'Infocomm & Media', and 'Transport & Mobility'. Industry-collaborated projects led by the Department of Technology, Innovation and Enterprise (TIE) will be introduced through the 'SP Tech to Market' theme.

For the first time, students under enhanced internship will also be able to showcase their mini-projects under the relevant categories.

We would like to thank you for your presence and offer our congratulations to the organising committee, staff, student clubs & helpers, industry partners and visitors, who have contributed their time and effort in making the SP Engineering Show 2019 a memorable event.

SP ENGINEERING SHOW WORKING COMMITTEE



(From left to right)

Front Row:

Ang Chew Peng, Wendy Chia, Lau Yuen Kit, Lynn Chhia, Esther Kang, Chua Hui Ching, Wendy Leck Hwang Keng, Duncan Sih Wei Cheong, Tan Eng Lee, Beh Hang Meng, Cheung Kim Kwong, Seow Boon Chor, Derrick Ting Lee Hou, Jonathan Ng

Back Row:

Chanon Kulchol, Bernard Tan, Phang Kwok Khuan, Kng Beng Kee, Chan Chin Loong, Chua Poh Hui, Raymond Ho, Chua Jiat Loong, Alvin Tay

Not in Picture:

Lee Yoke Ling, Frank Chua, Janelle Teo, Neo Aik Khoon, Saw Tun, Joseph Lee, Chiam Tow Ming

SP ENGINEERING SHOW STUDENT COMMITTEE



(From left to right)

Row 1 (Below):

Nur Insyirah Bte Sulaiman, Nashita Fatima, Amanda Phua Jing Xuan, Michelle Loong Jia Ling, Nurul Izzah Bte Dzulkifli, Chai Si Hui Shirley, Chai Jia Xin, Nur Athifah Bte Mahathir, Kang Yi Ting, Tsing Chia Shuen Shania, Chong Leann

Row 2:

Abdul Qayyum Bin Mohamed Yazia, Brandon Chiok Yun Shun, Tan Wei Hann Jarell

Row 3:

Praveen Kumar S/O A. Jeyaramas, Chok Yuan Hunn, Kharran Mangondaar S/O Mugunthan, Muhamad Raziq Bin Zaidi, Ivan Jerry Orozco Del Rosario, T Naveen Prasath, Chui How Yee, Hong Qi Hao, Ong Chong Hwee

Row 4 (Top):

Muhammad Nazran Bin Mohamad Ghazali, Benjamin Yu Wei Jie, Khrishnathan S/O Ravindran, Kaisan Harith Bin Abdul Rahim, Deereshmen S/O Murugaiya, Brian Chng, Chua Zhong Heng