

Annual Report 2019

Summary

IChemE Malaysia faced a number of challenges in 2019, especially, with many local businesses being affected by the ongoing US-China trade war. This has adversely impacted our ability to secure budgeted sponsorships and reduced participants for many of our events.

We are however delighted that our Malaysian members invested time to share their thoughts and ideas to improve IChemE's effectiveness, good governance and transparency by responding to our global survey which was initiated by the newly formed IChemE Congress. The outcome of the survey was deliberated by the Malaysian Board with input from our Congress representative from Malaysia, Dr. Ramanan Nagasundra Ramakrishnan.

The revised Royal Charter prompted the calling of an Extraordinary General Meeting which took place in mid-August 2019 where members were invited to review the changes required to IChemE Malaysia Constitution, the outcome of which has been widely reported. I am grateful to all those who expressed their ongoing support and confidence in Board's leadership and the actions being table to continually transform how we operate and support our members locally.

IChemE Malaysia representation on the Malaysian Sustainable Palm Oil (MSPO) Standards working group. The MSPO Standards, MS2530:2013 series and the Supply Chain Certification Standard used under the MSPO Certification Scheme is a set of national standards that addresses sustainability and traceability requirements of the palm oil industry in Malaysia. It is now due for review and expected to be completed in 2020. The Malaysian Palm Oil Certification Council (MPOCC) has appointed two members of POPSIG led by Ir Qua Kiat Seng as Permanent member and Professor Chong Mei Fong as its Alternate member.

I trust many of our members are also aware of the activities promulgated by the Learned Society Committee (LSC). This is the vehicle by which IChemE will use to advance the chemical engineering profession by leveraging the expertise of our members with relevant partners and policymakers in several jurisdictions to raise the profile of chemical engineering.

We also recognise that digitalisation should remain a key priority to improve services for our members. You're able to witness this through the developed content management system (CMS) to deliver webservices that are smartphone enabled.

Highlights of 2019 include the following:

Company specific Training courses

- **HAZOP Team Leader and Team Member & HAZID** held at **Sabah Skills Technology Centre, Kota Kinabalu, Sabah 18-21 February 2019** for **Kebangangan Petroleum Operating Company** with 17 delegates. This course was delivered by Mr. V Gopinadhan.
- **Inherent Safety in Design & Operation Development (Batch 1)** held at **InterContinental Hotel, Kuala Lumpur** beginning **14-15 August 2019** for **PT Donggi Senoro LNG, Indonesia**. Total four (4) participants registered with decent gross surplus made from this training course. The course was successfully delivered by Mr. V. Gopinadhan.
- **Inherent Safety in Design & Operation Development (Batch 2)** held at **InterContinental Hotel, Kuala Lumpur** beginning **17-18 October 2019** for **PT Donggi Senoro LNG, Indonesia**. Total four (4) participants registered with decent gross surplus made from this training course. Also, delivered by Mr. V. Gopinadhan.

Conferences/Industry Events

- **7th IChemE Malaysia Awards 2019** held at **Sheraton Hotel, Kuala Lumpur** on **14 October 2019 (Monday)**
The 2019 IChemE Malaysia Awards and Annual Dinner was held on October 14, 2019. For the first time, IChemE Malaysia witnessed the presence of two guests of honour, Tuanku Zara Salim, Queen of Perak who is IChemE Malaysia's Royal Patron together with YB Teresa Kok, Minister of Primary Industries at the 2019 IChemE Malaysia Awards. The presence of our guest of honour brought much prestige and serve as an important encouragement to the chemical engineering fraternity. We received an overwhelming response for this event had an overwhelmed by the media presence with a total number of 212 participants.
- **8th Regional Process Safety Seminar (RPSS)** held at **Intercontinental Hotel, Kuala Lumpur** beginning **19 to 20 March 2019** with 74 attendees.
- **Hazards AP** held at **Double Tree by Hilton Hotel, Kuala Lumpur** beginning **24 – 25 September 2019** which was attended by 91 industrial and academic participants.

There were other public Training Courses which had good participation which is highlighted at the end of this report.

Overall membership numbers decreased from 4,107 to 3,497, primarily due to the removal of individuals who were in one-year arrears just prior to year-end. The numbers of Chartered members continue to grow, which is now at 385, of which 81 are Fellows, an increase of 12%.

We appreciate and thank all the members who made significant contributions to IChemE by volunteering their valuable time. Without their contribution and active support, the IChemE would not be able to achieve our objectives in serving our members.

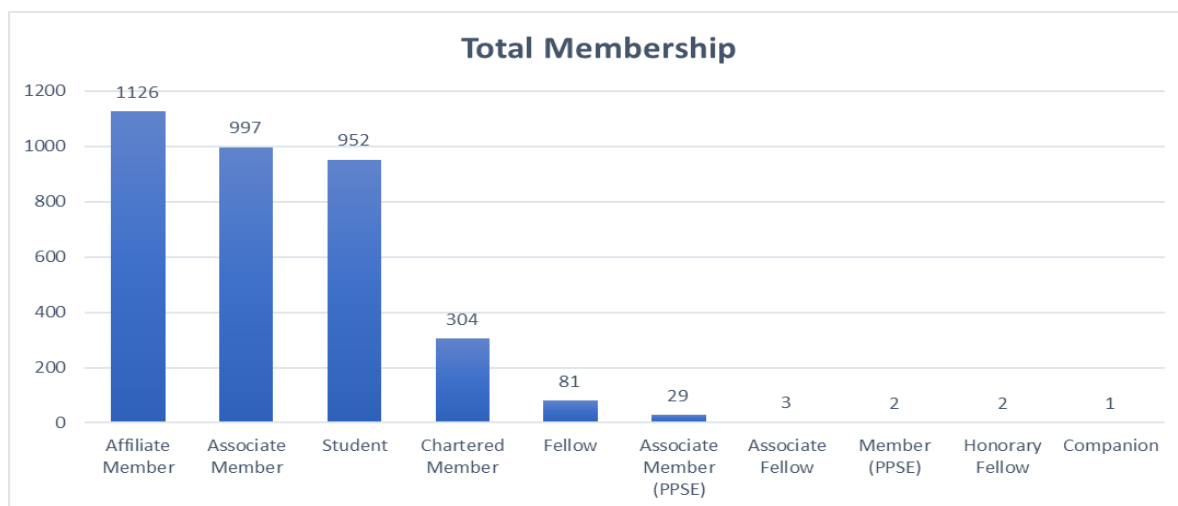
The Board of IChemE in Malaysia 2018-2019 are:

Ir. Dr. Christina Phang (Chair); Professor Ir. Dr. Abdul Aziz Abdul Raman (Past Chair); Professor Ir. Dr. Law Chung Lim (Deputy Chair); Ir. Hong Wai Onn (Honorary Secretary); Ir. Zainab Kayat (Honorary Treasurer); Datuk Sazali Hamzah, Ir. Rafil Elyas Ir. Qua Kiat Seng; Professor Michael Cloke and Professor Dato' Ir. Dr. Jeffrey Khor Chooi Beng.

Staff: Peter Slane, Region Director widened his coverage and took on the role as Director of Region. Mr. Mohan Balasingam's role as Business Development Manager SE Asia for Events, Training and Membership Development. Ms. Tharshinye Soomaran continued as Office Manager. Ms. Theresa Lok continued as Membership Marketing Executive on a part time basis and Ms. Priya Ravindran as Training & Events Executive. Ms. Niza Zainuddin, continued her role as Administrator & Finance Executive and Miss Dharshani Naidu as Accounts and Administrative Assistant.

Membership

There has been significant potential to increase Chartered Membership in Malaysia. However, the challenge remains in terms of our ability to increase the number of Chartered and Fellow Members, where the focus is to support the development of our Associate Members. This objective should be viewed as more than just a number game, as I firmly believe that sustainable membership growth is delivered through members recognising the value that membership brings both to an individual and to our wider society. IChemE Board of Trustee members are reviewing the pathways to membership which should enhance the experience and progress of our current and future members.



University engagement

New IChemE Student Chapters were started at Xiamen University Malaysia, Universiti Malaysia Sabah (UMS) and University of Kuala Lumpur – Malaysian Institute of Chemical & Bioengineering Technology (UniKL- MICET) and revived at Heriot Watt University. There is a total of 13 student chapters. Xiamen University also enquired and is showing interest in university accreditation.

IChemE present at Herriot Watt University Open Day to show support and showcased united front among ICE and IMechE.

The Regional Chemical Engineering Undergraduate Congress (RCEUC) is an annual event organised by the Department of Chemical Engineering, University of Malaya, in collaboration with UM Chemical Engineering Undergraduate Club (CEUC) and is supported by IChemE with the theme of “Embracing Industrial Revolution 4.0: Emerging Sustainable Technologies in Chemical Engineering” held on 8-9 July 2019 at University Malaya. There were over 90 participants from local and International Universities.

There were several universities visit, i.e. Monash University Malaysia, Universiti Kebangsaan Malaysia, Universiti Teknologi MARA (UiTM), Curtin University Malaysia, Swinburne University of Technology, Sarawak, University Malaysia Sarawak (UniMAS), University of Malaya (UM), Universiti Tunku Abdul Rahman (UTAR), University Nottingham Malaysia, Taylor’s University, UCSI University and Herriot-Watt University.

Student Chapter reacted positively to the allocation of funds the university students to run Chemical Engineering related activities.

Gan Mee San has been elected as student member representing Malaysia for 2019 IChemE Congress.

Corporate Engagement

Corporate engagement 2019 comprises visit to many companies including trips to East Malaysia and Brunei. Visits included Royal Brunei Airlines to discuss courses; JKR Brunei again to discuss training; Aker Solutions and Amex Foster Wheeler in Kuala Belait for promotion of our training courses and “Becoming Chartered”; Petrokon to follow up on ACTS, Get Chartered and as well as in-house courses; University Technology Brunei for a talk on being an engineer by Saney Halim, Fellow of IChemE. A “Get Chartered” session was also conducted at PETRONAS, Miri.

West Malaysia visits to Emerson Process Management (sponsorship and get chartered); Alfa Laval to meet up with the VP for Asia Pacific (RPOPS, sponsorship & Get Chartered); ABS Engineering (sponsorship); Thermaflow (sponsorship & possible technical talks for POSIG); Genting Plantation (membership for their engineers & coming for our RPOPS); Tradewinds Plantation Berhad (membership & participation in RPOPS); PETRONAS DayaBumi (PPSE presentation with their process safety team); RocOil (courses & collaboration opportunities); KLK Oleo for Get Chartered and ISC talk by Trish Kerin)

In Johor, visits to the PETRONAS Rapid Project (GetChartered); PETRONAS Chemicals Glycol (Get Chartered); Mewah Oleo, Synthomer, Natural Oleo (GetChartered); and Carintino Group (GetChartered).

IChemE had a booth at the Asia Oil & Gas Conference (AOGC) 2019, which was held between 23 – 25 June 2019 at Kuala Lumpur Convention Centre (KLCC). We had a good turnout of participants who visited our booth.

Sabah Skills Training Centre (SSTC) had supported the in-company courses and shown interest to continue the following year.

The Malaysian Board visits YB Teresa Kok, Minister of Primary Industries (MPI) on 20 August 2019 at Ministry of Primary Industries, Putrajaya.

IChemE visits the Institution of Engineers, Malaysia (IEM) on 14 December 2019 to discuss on IChemE MoU.

IChemE Malaysia Awards in Innovation & Excellence 2019

The 2019 IChemE Malaysia Awards and Annual Dinner was held on October 14, 2019. The event was graced by the presence of our Royal Patron Her Royal Highness Queen of Perak Darul Ridzuan, Tuanku Zara Salim and Yang Berhormat Teresa Kok, Minister of Primary Industries. Total number of participants was 212. The event was overwhelmed by the media presence. The number of entries were higher in comparison to the previous year which reached almost 90. A big thank you to the head judge and the judges for working tirelessly in selecting the winners. Also, a big shout out to the Malaysian board, volunteers, well-wishers and colleagues for booking tables and encouraging others to attend.

Although, we had the support of KLK Oleo (yearly package) & PETRONAS who sponsored the Oil & Gas Award. The biggest challenge remains to secure sponsorship for this event in the coming years.

SIGs Talks, Seminars & Courses in 2019

Oil & Natural Gas Special Interest Group (SONG)

SONG was led by Ir. Rafil Elyas and Ir. Zainab Kayat, board member of IChemE in Malaysia. Ir Zainab was instrumental in securing sponsorship from PETRONAS to provide the venue and refreshments for the evening talks. Meanwhile Ir Rafil supported this by volunteering his workforce to help coordinate, organise and expedite the following talks:

- **28th January 2019** - PSV Inlet Piping: Meeting the 3% limit – An evening talk in Dayabumi complex, Kuala Lumpur with technical presentation by the Technical Professional team from Winmore Engineering Sdn Bhd. Presented by Ir Mohd Hafiz Zakaria, Lead Engineer & Project Manager and Ir Hasnal Koris, Process Engineer.
- **25th February 2019** - Optimal Planning of Unconventional Gas Field Development with Process Integration Techniques
Evening talk in Dayabumi complex, Kuala Lumpur, presented by Professor Ir Dominic Foo – Professor of Process Design and Integration. There were number of attendees; 18 physical event attendees and 63 webinar attendees which concludes a total of 81 attendees.
- **25th March 2019** - FPSO Trims Effecting Topside Equipment Design Configuration – An evening talk held at Dayabumi complex, Kuala Lumpur, presented by Ir Mohd Khairulariffin Bin Samin – Head, Topside Facilities, Offshore Business, MISC Berhad. The event saw a huge turnout with 105 participants: 22 physical event attendees, 83 webinar attendees.
- **29th April 2019** - An overview on Transient Simulation Analysis – An evening talk held at Dayabumi complex, Kuala Lumpur, presented by Mr. Shahril Saidin, Process Engineer of East One-Zero-One Sdn Bhd.
- **17th June 2019** – The truth about Oil Palm – Palm Oil Milling Initiatives – An evening talk hosted by Palm Oil Processing Special Interest Group (POPSIG), supported by SONG and BESIG, presented by Ir Mervin, Chief Engineer from Sime Darby Research Sdn Bhd.

- **24th June 2019** - Specialist Engineering Study in Modern Oil and Gas Industry – An evening talk held at Dayabumi complex, Kuala Lumpur with technical presentation by Process Engineers from Synergy Engineering Sdn Bhd, presented by Saw Sieh Khim and Leong Ann Tsun, Process Engineer.
- **29th July 2019** – A Pre-Commissioning Decision: Dewater the Flexible Flowlines or Not – An evening event talk held at Dayabumi complex with technical presentation by Lead Flow Assurance Engineer from Genesis Oil and Gas, presented by Julio Jover.
- **26th August 2019** - Regasification of Super Critical Fluid – An evening talk held at Dayabumi complex, Kuala Lumpur, presented by Ir Shahrul Azman Zainal Abidin with technical presentation by the Technical Professional team from Group Technical Solutions, PETRONAS Project Delivery & Technology Division.
- **4th September 2019** - Towards Industry 4.0 in the Palm Oil Mill at Monash University Malaysia hosted by Palm Oil Processing Special Interest Group (POPSIG), supported by SONG. Presented by Ir. Dr. Tan Chee Fai
- **30th September 2019** - Pseudo Dry Gas System – An enabling technology for long distance tiebacks subsea gas field evening talk at Dayabumi complex, Kuala Lumpur, presented by Mr. Gaurav Gupta, Flow Assurance Manager, Infecsea Sdn Bhd. There were number of attendees; 12 physical attendees and 36 webinar attendees in-house.
- **21st October 2019** - Improve Safety and Optimize Capital via Accurate Blowdown Vessel Design at Dayabumi complex, Kuala Lumpur, presented by Mr. Low Wai Chong, Technical Solutions Consultant of Honeywell Connected Plant. There were number of attendees; 10 physical attendees and 33 webinar attendees in house.
- **25th November 2019** - Nonlinear Model Advanced Process Control. The evening talk is held at Dayabumi complex, Kuala Lumpur, presented by Ir Dr Ragnath Bharath, Principal Consultant – IFP Engineering Consultancy Sdn. Bhd. There were 15 physical attendees and 31 webinar attendees in-house.
- **2nd December 2019** - Journey to Deploying Data Analytics at Monash University Malaysia. Presented by Ir. Mohd Sabri Zakaria and supported by SONG

Biochemical Engineering Special Interest Group (BESIG)

- **17th April 2019** - BESIG was led by Dr. Nagasundara Ramanan, Congress representative in Malaysia Region. Dr Ramanan supported this evening talk by volunteering to help organise Bioprocess Symposium 2019 “The Route to Sustainability – Prospects and Challenges of the Bio-based Economy”, co-organised by University Malaysia, Pahang on 17 April 2019 at University Pahang, Malaysia.
- **17th June 2019** – The truth about Oil Palm – Palm Oil Milling Initiatives – An evening talk hosted by Palm Oil Processing Special Interest Group (POPSIG), supported by SONG and BESIG, presented by Chief Engineer, Ir Mervin from Sime Darby Research Sdn Bhd.

Educational Special Interest Group (EDUSIG)

- **7th August 2019** - EDUSIG led by Professor Dominic Foo. Safety Teaching Workshop held at IChemE office on 7 August 2019. There were 7 attendees. This workshop brought together some industrial practitioners and academic leads to share the best practices in chemical engineering safety.

Palm Oil Processing Special Interest Group (POPSIG)

POPSIG continued their success since their inception with many talks in Peninsular Malaysia, East Malaysia & Indonesia.

The Monash University Sunway Campus continued to sponsor the venue, with the help of Professor Chan Eng Seng. This year the head of the POPSIG & its committee continued their commitment in

producing a quarterly newsletter which is then made available on the POPSIG website. The printing of the newsletter is proudly sponsored by Desmet Ballestra.

- **11th February 2019** - Performance Analysis of Dividing Wall Column for Oleochemical Fractionation Process held at Monash University Malaysia. There were 14 physical attendees and 13 webinar attendees.
Presented by Ir Dr Mohamad Rizza Othman.
- **4th March 2019** - Vent Economizer – IChemE Award winner for 2018, Palm Oil Industry Category held at Monash University Malaysia. There were 7 physical attendees and 3 webinar attendees.
Presented by Ir Shyam Lakshmanan.
- **29th April 2019** - Systematic Tools for Sustainable Palm Oil Plantation Development: A Response to European Union Resolution on Palm Oil held at Monash University Malaysia with 32 physical attendees.
Prepared by Dr Viknesh Andiappan.
- **17th June 2019** - The Truth about Oil Palm - Palm Oil Milling Initiatives held at Monash University Malaysia. There were 8 physical attendees and 101 webinar attendees
Presented by Ir. Chew Chien Lye @ Mervin.
- **29th July 2019** - Oil Deodorising: New Technologies and Solutions to Improve Final Edible Oil Quality held at Monash University Malaysia. There were 22 physical attendees and 14 webinar attendees.
Presented by Chia Ing Chuk.
- **4th September 2019** - Towards Industry 4.0 in the Palm Oil Mill at Monash University Malaysia.
Presented by Ir. Dr. Tan Chee Fai
- **4th November 2019** - Extending Oleochemistry - Glycerin to Propylene Glycol and how Industry 4.0 enters Oleochemical Industry at Monash University Malaysia.
Presented by Fredrik Pomrehn.
- **2nd December 2019** - Journey to Deploying Data Analytics 2019 at Monash University Malaysia.
Presented by Ir. Mohd Sabri Zakaria

Bursaries and Design Award

- Bursaries: Zhang Hao from Xiamen University Malaysia
- Design Award: Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia

University Roadshow

POPSIG together with IChemE Malaysia made its rounds to selected universities in Malaysia to engage chemical engineering undergraduates and lecturers about palm oil and careers in this industry. The following events were held:

- **1st stop: 16 Aug 2019** - Universiti Tunku Abdul Rahman, (around 90 participants including field trips participants)
- **2nd stop: 20 Sept 2019** - Monash University Malaysia, (launching of the roadshow with over 100 participants including field trips participants)
- **3rd stop: 9 Oct 2019** - University of Malaya, (around 70 participants including field trips participants)
- **4th stop: 6 Nov 2019** - Xiamen University Malaysia, (around 80 participants including field trips participants)

- **5th stop: 4 Dec 2019** - University Nottingham Malaysia, (around 50 participants including field trips participants)

Others

- **8th January 2019** - Participated in Reach and Remind Friends of The Industry Seminar 2019 organized by Malaysian Palm Oil Council at Kuala Lumpur.
- **16th February 2019** - Delivered talk to The Institute of Engineers, Malaysia at Wisma IEM.
- **19 to 20 March 2019** - Participated in Malaysian Palm Oil Board (MPOB) International Palm Oil Congress and Exhibition 2019.
- **19 to 20 March 2019** Delivered talk in 8th Regional Process Safety Seminar organized by IChemE Malaysia at Kuala Lumpur.
- **8th May 2019** - visited Xiamen University Malaysia.
- **6th August 2019** - visited the Palm Oil Refineries Association (PORAM).
- **30th October 2019** - visited Malaysian Oil Scientists' and Technologists' Association (MOSTA).

Seminars

National Chemical Engineering Symposium (NACES)

NACES 2019 hosted by Universiti Malaysia Pahang between 4-6 October 2019. This event is hosted annually by different universities in Malaysia with the aim to provide a platform for Chemical Engineering students to nurture a culture of innovation and creativity, exchange of information and promoting discussion between students and people in the industry.

Training Courses

- **HAZOP Team Leader and HAZID (25-27 June 2019) held at InterContinental Hotel, Kuala Lumpur.**
This well-established, integrated course provided effective HAZOP training for both team leaders and team members. As well as presentations covering all essential aspects of the method, there were workshops on HAZOPs for continuous processes, sequential operations and computer-controlled plant. The relationship between HAZOP and other hazard identification (HAZID) methods and hazard studies was discussed. There were 13 attendees covering those aspiring to be HAZOP Leaders and those who would want to improve their contribution as team members. This course was delivered by Mr. V Gopinadhan.
- **Inherent Safety in Design & Operation Development (Batch 1 & 2) held at InterContinental Hotel, Kuala Lumpur in August and October 2019** requested by **PT Donggi Senoro LNG, Indonesia**. Total eight (8) participants registered with decent gross profit made from this training course. The course was successfully delivered by Mr. V. Gopinadhan.
- **Fundamentals of Process Safety held at InterContinental Hotel, Kuala Lumpur beginning 25 to 29 November 2019**
This course was targeted at staff in organisations keen to develop or improve their knowledge of process safety, hazards, risk and their management who have undeniably benefited from this event. There were 9 attendees to take part. This course was again delivered by Mr. Anthony Thomas.

Ir. Dr. Christina Phang CEng FIChemE, Professional Process Safety Engineer
Chair
Board of IChemE in Malaysia 2018-2019