

Double win for Sime Darby Research and Novozymes Malaysia at IChemE Malaysia Awards 2019

The Awards were held at the Sheraton Imperial Kuala Lumpur Hotel in Kuala Lumpur on Monday 14th October 2019.

Special guests the Royal Patron of IChemE Malaysia, Her Royal Highness Queen of Perak Darul Ridzuan, Tuanku Zara Salim, D.K, D.K.S.A, D.K.A, and YB Teresa Kok, Minister of Primary Industries, attended the ceremony to celebrate excellence in the chemical engineering community in Malaysia.



Ir Dr Christina Phang, Chair of the Board of IChemE in Malaysia, said: "Congratulations to all the winners of the IChemE Malaysia Awards 2019. These awards recognise the positive contributions that their research and innovations in chemical engineering are having to solve some of the major challenges we face as a society, not only in Malaysia, but across the world. They are demonstrating that chemical engineering really does matter."



In her speech YB Teresa Kok emphasized the importance of IR 4.0 to ensure the resilience of the palm oil industry and noted with satisfaction that chemical engineers have been supporting the palm oil industry. She said, "The IChemE has presented support through its investment in the Palm Oil Special Interest Group (POPSIG) since its formation in 2015 especially in relation to palm oil processing. The Ministry is also pleased to note that IChemE has also actively supported the growth of palm oil industry at the university level."



Winner of the Palm Oil Industry Award sponsored by KLK Oleo

L to R Siew Fook Ming (Project Director of KLK Oleo), Dr. Ahmad Jaril Asis (Head, Processing Technology, Sime Darby Research), Nik Suhaimi Mat Hassan (Chief Engineer, Sime Darby Research), Mohammed Faisal Mohammed Yunus (Head, Processing & Engineering, Sime Darby Research), Tan Teik Chin (VP, F&B Business Operations-Asia Pacific, Novozymes Malaysia), Muhammad Iqbal (Associate Key Account Manager, Novozymes Malaysia), Muhammad Zaidy Arnan (Chief Engineer, Sime Darby Research)

Sime Darby Research and Novozymes Malaysia were crowned the winner of the *Palm Oil Industry Award* and the *Sustainability Award* for their joint project *Enzymatic Assisted Extraction of Palm Oil*. These organisations have developed enzymes for use in the palm oil industry that aid the release of oils by degrading the cell walls. This results in the release of more oil and the subsequent increase in the overall oil yield. . It has the potential to generate an additional revenue of RM6.6m per mill per year

for Sime Darby Plantation and RM2bn per year for the palm oil industry in Malaysia. This process could also enable a 4% increase in production from the same amount of land, as well as reduce greenhouse gas emissions by 9% per tonne of crude palm oil (CPO) produced.



Winner of the Sustainability Award sponsored by the IChemE Energy Centre

L to R Ir Zainab Kayat (Honorary Treasurer, IChemE in Malaysia), Nik Suhaimi Mat Hassan (Chief Engineer, Sime Darby Research), Dennis Tang (Business Manager, Vegetable Oil Processing, Novozymes Malaysia), Amirul al Hafiz (Engineer, Processing & Engineering, Sime Darby Research), Nik Mohd Farid (Chief Engineer II, Sime Darby Research), Tan Teik Chin (VP, F&B Business Operations-Asia Pacific), Muhammad Zaidy Arnan (Chief Engineer, Sime Darby Research)

IOI Acidchem was Highly Commended in the Palm Oil Industry Award category for their submission *Waste Heat Recovery*. Through heat and energy integration analysis, a complete recovery of heat recovery from thermal oil heater flue gas by air preheater has been proven to reduce the unit consumption for thermal oil heater from an average of 33.5 Sm³ Natural Gas per Mt fatty acid to an average of 32.0 Sm³ Natural Gas per Mt fatty acid which contribute to 4.7 % reduction in unit consumption. With this savings, a projected saving of RM 232,000 per year based on average plant annual throughput could be achieved. This could be translated into a reduction of 406 Mt CO₂ or equivalent to carbon sequestered by 356 acres of U.S. forest

in one year. Besides, by implementation of this project, the volume on natural gas consumption can be reduced and overall thermal efficiency has been improved from 87 % to above 90 %.



Highly Commended Palm Oil Industry Award

L to R Siew Fook Ming (Project Director of KLK Oleo), Azlan Ahamed (Senior Utilities Engineer, IOI Acidchem), Tan Hian Yiam (Utilities Manager, IOI Acidchem)



Winners of the eight trophies of the IChemE Malaysia Awards 2019

The IChemE Malaysia Awards 2020 are free to enter and open to all chemical engineers in Malaysia, both members and non-members.

Entries open March 2020 and close June 2020. Winners will be announced at the IChemE Malaysia Awards Dinner in October 2020.

