POPSIG Virtual Site Tour: IChemE Student Chapter Festival

POPSIG Virtual Site Tour was the featured event on Day 2 of IChemE Student Chapter Festival dated 10th March 2021. The festival is a virtual global event jointly organised by IChemE Malaysia, IChemE Student Chapter Universiti Malaya and IChemE Student Chapter University of Nottingham Malaysia with a total of 137 participants, who are undergraduates of various engineering disciplines from universities all around the world. The festival started with an introduction about IChemE POPSIG from Dr Viknesh Andiappan to help students gaining a deeper understanding about the POPSIG community, activities and incoming competitions.
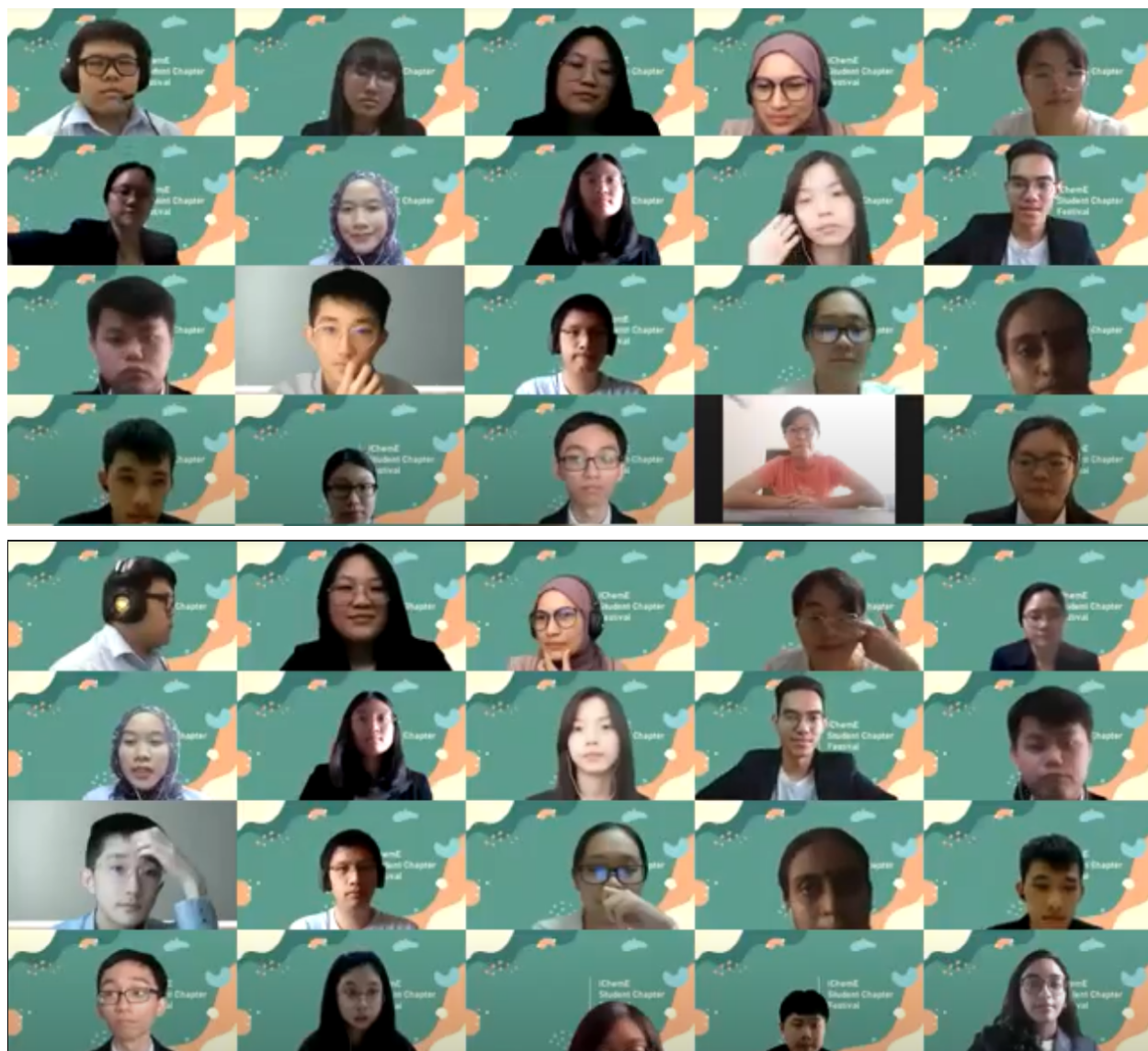
Next, the participants were introduced to the roles of chemical engineers in the palm oil processing industry by Ir Hong Wai Onn. The human population is estimated to reach an astounding number of 9 billion by 2050. In order to provide for the growing needs of oils and fats on shrinking arable lands, palm oil could be the solution attributing to its high efficiency. Palm outmatches all other oil crops in terms of efficiency per unit land as only 1/10 of land size is required to produce the same amount of oil. Besides, palm oil after the oleochemical process is versatile in usage to produce a range of consumer products. The role of a chemical engineer is to improve quality of life with our knowledge in the multidisciplinary field of study by building sustainable and safer processes. Future opportunities for chemical engineers also lie in automation as we welcome the 4th Industrial Revolution. A skilled chemical engineer is regarded as a stable job that is in demand in the market now and in the future. At the end of this session, it was shown through an interactive short survey that participants have changed their perception on how relevant is chemical engineering in palm oil processing, with a higher percentage of students agreeing that it is very much related.

Then, the participants joined the Virtual Laboratory and Production Tour by Kewpump (M) Sdn Bhd. Mr Caesar Nair, the Chief Operating Officer of Kewpump took us through the tour. Kewpump was introduced as a producer with full scope of design, metal casting and machining capabilities equipped to handle customised or industry standard orders in compliance to ISO standards. They specialise in the manufacturing of stainless steel end suction centrifugal pumps and nut cracking machinery. Moving to the main production processes, we were introduced to stages that include design using simulation software to cast a mould, manufacturing the pump using machineries and a series of Quality Control procedures that the products will undergo. The R&D Facilities such as 3D printer were also showcased. A brief sharing about Pump Fundamentals for Chemical Engineers were given to equip fellow participants with the relevant knowledge and to deepen their understanding on pumps.

Following that, we had Ms Areej Taufik from Malaysian Palm Oil Council (MPOC) as our speaker for introduction to palm oil, from its fruit to nutritional benefits and major food application. It is concluded that palm oil is suitable for cooking at high temperatures due to its stable nature. Not only that, palm oil is rich in nutrients and is suitable for the making of various types of food. The participants were given the exposure to learn more about palm oil and its facts.

The last session of the day was a Kahoot Challenge to test the participants on the contents delivered by our speakers throughout the whole festival. Prizes will be awarded to the champion and runner-ups to congratulate their victory. At 12:25 pm, the closing ceremony was held marking the end of the festival.

The organising committees of IChemE Student Chapter Festival would like to express our sincere gratitude to POPSIG for being part of the Festival's success. The insightful sessions have greatly enriched our knowledge and understanding of the industry. Our sincerest thank you and we look forward to more exciting events from POPSIG in the future.

group photo of participants

Introduction by POPSIG