CHE656 - Plant Design Project Groups
ChEPS Class-27, Semester 2 of 2023

Technical Advisor: Dr. Hong-ming Ku
General Advisor: Dr. Nonsee Nimitsiriwat

Team/Project	English Advisors	Members
Group 1 Part (a): AIChE NSDC Year 2021 Part(b): GRO	Dr. Nonsee	1. Patcharaphorn Sukjarern (KMUTT) 2. Teeratat Promchan (KMITL) 3. Munchuporn Larpprasoetkul (KMUTT)
Group 2 Part (a): AIChE NSDC Year 2020 Part (b): EVO	Dr. Chutima	1. Matimon Konteing (KMUTT) 2. Onjira Sopakayang (KU) 3. Possawat Teerasarunyanon (KMUTT)
Group 3 Part (a): AIChE NSDC Year 1989 Part (b): OOBE	Dr. Kwanchanok	1. Thanut Bumrungsawat (KMUTT) 2. Matchima Konglom (KMUTT) 3. Amornrat Srithongpusakul (KMUTT)
Group 4 Part (a): AIChE NSDC Year 1991 Part (b): LOA	Dr. Asawin	1. Siksakaset Prerdpring (KMUTT) 2. Salisa Dachboon (KMUTT) 3. Chanakan Sukmongkolwongs (TU)
Group 5 Part (a): AIChE NSDC Year 1995 Part (b): WaOA	Dr. Thongchai	1. Ponthep Wongjaikum (KMITL) 2. Nartsupang Chongcharoen (KMUTT)

Presentation Timetable:

Part (a):
Proposal Presentation – Thursday February 15, 1:30 pm
- Attended by Aj Ming, Aj Thongchai, Aj Asawin, and Aj Nonsee

Progress Presentation – Thursday March 7, 1:30 pm
- Attended by Aj Ming, Aj Thongchai, and Aj Nonsee

Final Presentation – Thursday March 28, 1:30 pm
- Attended by Aj Ming, Aj Thongchai, Aj Nonsee, and Aj Kwan

Part (b):
First Presentation – Thursday April 25, 1:30 pm
- Attended by Aj Asawin and Aj Alisa

Final Presentation – Thursday May 16, 1:30 pm
- Attended by Aj Ming, Aj Thongchai, Aj Asawin, and Aj Kwan

Part (a): AIChE National Student Design Competition Problems

- **Year 1989** – Methanol and MTBE Synthesis from Vacuum Distillation Residue
- **Year 1991** – Revamp Refinery NGL Processing Unit
- **Year 1995** – Production of Methanol by a New Process Utilizing Methyl Formate as an Intermediate
- **Year 2020** – Toppings Refinery Retrofit
- **Year 2021** – Modular Distributed Gas-to-Liquids (GTL) Synthesis

Part (b): Using Metaheuristic Algorithms to Solve Complex Chemical Engineering Optimization Problems

- Energy Valley Optimizer (EVO)
- Gold Rush Optimizer (GRO)
- Lyrebird Optimization Algorithm (LOA)
- One-to-One-Based Optimizer (OOBO)
- Walrus Optimization Algorithm (WaOA)