



CHE656 - Plant Design Project Groups
ChEPS Class-25, Semester 2 of 2021



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

Team/Project	English Advisors	Members
Group 1	Dr. Alisa	1. Suprakorn Chongudomlerk 2. Pongsatorn Anukulnaree 3. Sirinat Khumphat
Part (a): Modular Distributed Ammonia Synthesis Part(b): Dialectic Search Algorithm		
Group 2	Dr. Kwanchanok	1. Sorawit Somatsa 2. Poramet Buddeewong 3. Suphanut Suwanrat 4. Chitsanupong Sarnkhaveerakul
Part (a): Production of Non-alcoholic Beer Part (b): Election Campaign Algorithm		
Group 3	Dr. Chutima	1. Kurkrit Noomahun 2. Chaipiphat Boonluemee 3. Kittikhun Jirapatphongsakorn 4. Chayanee Peungkiatpairote
Part (a): Coal to Methanol Part (b): Virus Optimization Algorithm		
Group 4	Dr. Asawin	1. Rattanun Saelim 2. Supassara Sisalai 3. Waranon Artharn
Part (a): Recovery of Germanium from Optical Fiber Manufacturing Effluents Part (b): Ant Colony Optimization		
Group 5	Dr. Paritta	1. Sattrapol Tantai 2. Chanakarn Panmaroeng 3. Nitchamon Siripanich
Part (a): Alternate Technology for Sour Water Stripping Part (b): Differential Algorithm		
Group 6	Dr. Nonsee	1. Anyanee Thamungkit 2. Parama Chaloeysiht 3. Sudarampai Yensatid
Part (a): Reactor Design for Polyether Synthesis Part (b): Imperialist Competition Algorithm		

Presentation Timetable:

Part (a):

Proposal Presentations – Wednesday February 16, 1:30 pm (afternoon)

- Attended by Aj Ming, Aj Alisa, and Aj Asawin

Progress I Presentations – Thursday March 10, 1:30 pm (afternoon)

- Attended by Aj Paritta, Aj Chutima, and Aj Nonsee

Final Presentations – Friday April 1, 9:00 pm (morning)

- Attended by Aj Thongchai, Aj Kwanchanok, and Aj Ming

Part (b):

First Presentations – Friday April 22, 9:00 am (morning)

- Attended by Aj Kwanchanok, Aj Chutima, and Aj Thongchai

Final Presentations – Monday May 9, 1:30 pm (afternoon)

- Attended by Aj Alisa, Aj Nonsee, and Aj Ming

Part (a): AIChE National Student Design Competition Problems

1. Year 1990 – Recovery of Germanium from Optical Fiber Manufacturing Effluents (Dr. Asawin)

2. Year 1996 – Production of Non-alcoholic Beer (Dr. Kwanchanok)

3. Year 2002 – Reactor Design for Polyether Synthesis (Dr. Nonsee)

4. Year 2008 – Coal to Methanol (Dr. Chutima)

5. Year 2015 – Alternate Technology for Sour Water Stripping (Dr. Paritta)

6. Year 2019 – Modular Distributed Ammonia Synthesis (Dr. Alisa)

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

1. Differential Algorithm

2. Virus Optimization Algorithm

3. Election Campaign Algorithm

4. Ant Colony Optimization

5. Dialectic Search Algorithm

6. Imperialist Competition Algorithm