



CHE656 - Plant Design Project Groups
ChEPS Class-28, Semester 2 of 2024



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

Team/Project	English Advisors	Members
Group 1	Dr. Nonsee	1. Marisa Sangkrajang 2. Kaemisara Wattanayuenyong 3. Fariz Phungern 4. Pakin Chinphuad
Part (a): AIChE NSDC Year 1986 Part(b): GRO		
Group 2	Dr. Chutima	1. Pornnipa Sangsawang 2. Kawinnapat Pimsorn 3. Maitrai Sangwong 4. Urasaya Sawatdiwong
Part (a): AIChE NSDC Year 1989 Part (b): EVO		
Group 3	Dr. Kwanchanok	1. Chinatip Suwantri 2. Suparuk Nawakitsupakorn 3. Kittisak Keerati-isariyakul 4. Chanantida Wongratanapaiboon
Part (a): AIChE NSDC Year 1993 Part (b): OOB		
Group 4	Dr. Asawin	1. Suttinun Boonkhong 2. Natta Arungwutthiwong 3. Phanuwat Semjit 4. Chonticha Phetchanthuk
Part (a): AIChE NSDC Year 1999 Part (b): LOA		
Group 5	Dr. Jatuporn	1. Nattida Chamsutee 2. Kalyarat Pokaew 3. Nopparat Saubda 4. Ekawang Arunripada
Part (a): AIChE NSDC Year 2007 Part (b): WaOA		
Group 6	Dr. Thongchai	1. Supapitch Kositsarakhom 2. Thanapon Sripracha 3. Nittiya Ornwan 4. Angkawara Viriyabandit
Part (a): AIChE NSDC Year 2013 Part (b):		

Presentation Timetable:

- Part (a):
Proposal Presentation – Thursday February 13, 1:30 pm
▪ Attended by
- Progress Presentation – Thursday March 6, 1:30 pm
▪ Attended by
- Final Presentation – Thursday March 27, 1:30 pm
▪ Attended by

Part (b):

First Presentation – Thursday April 24, 1:30 pm

- Attended by

Final Presentation – Thursday May 15, 1:30 pm

- Attended by
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Part (a): AIChE National Student Design Competition Problems

- **Year 1986** – Production of Crude Acrylic-Acid from Propylene
- **Year 1989** – Methanol and MTBE Synthesis from Vacuum Distillation Residue
- **Year 1993** – Integrated Coal Gasification Combined Cycle Power Generation Plant Design
- **Year 1999** – Dicyclopentadiene Recovery from By-Product of Naphtha Steam Cracking
- **Year 2007** – Separation Technology Evaluation for Economic Recovery of Pyridine
- **Year 2013** – Comparison of Bio-mass to Bio-oils Reactor Systems Direct Conversion vs. Companion Coal Gasification

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)
- Bat-Inspired Algorithm (BIA)