TYARA NOVIA ANDHIN

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EDUCATION

Institut Teknologi Sepuluh Nopember (ITS) (2020-present) – Bachelor of Chemical Engineering GPA: 3.77/4.00 Specialized in Process System and Control Engineering with a thesis on CO2 separation simulation using ASPEN.

Memorial University of Newfoundland (MUN) (2023-2023) – Exchange Student GPA: 4.00/4.00

- · Completed some courses focus on oil and gas, i.e Natural Resources Geology and Formation Evaluation
- Engaged in various student union and community activities, leading to interviews on local radio.

Scholars: Canada-ASEAN Scholarships and Educational Exchanges for Development (SEED)

Universiti Teknologi Petronas (UTP) (2021-2021) – Exchange Student

GPA: 4.00/4.00

Completed courses in Chemical Engineering, with a final project on the Combined Gas Steam Power Cycle Simulation. **PROFESSIONAL EXPERIENCES**

ExxonMobil Cepu Limited – Corrosion and Integrity Intern

July 2024 – Present

- Assessed failure probabilities due to microbial and under-deposit corrosion from Phased Array Ultrasonic Testing
- Evaluated water injection limitations due to deposit using HYSYS and quantified oil losses with the VRR equation
- Collaborated with surface and subsurface teams to develop a roadmap for improving well injectivity and reducing corrosion rates caused by deposit (schmoo), incorporating schmoo dissolvers and well interventions.

PT Kaltim Methanol Industri – *Health, Safety, and Environment Intern*

Jan 2024 – Feb 2024

- Involved in safety monitoring during turn around, such as explosive gases monitoring, confined spaces inspection, and gas line leaks possibility identification based on P&ID, conducted job safety assessments and risk assessments.
- Successfully managed 400 tonnes of hazardous and toxic used catalyst disposal and conducted wastewater analysis.

PT Pertamina Hulu Rokan – *Facility Engineering Intern*

July 2023 – Aug 2023

- Performed a hydraulic simulation analysis for pipe and pump design in a new production line using Pipesim.
- Executed equipment design analysis for gathering station equipment, including separator, surge and shipping tanks **ORGANIZATIONAL EXPERIENCES (SELECTED)**

Society of Petroleum Engineers (SPE ITS SC) – *Public Relation*

July 2021 – July 2023

- Led journalism division and supervised every work program such as content about the energy industries through news updates and magazine to all media platform of SPE ITS, resulting in a twofold increase in readership.
- Successfully conducted workshop that can improve writing and communication skills among the members.

American Institute of Chemical Engineers (AIChE ITS SC) – External Relation

May 2021 – July 2022

- Communicated and connected elements of AIChE ITS SC with external parties, such as industries, professionals, and chemical engineering students both locally and globally.
- Responsible as the Person in Charge (PIC) of sponsorship for the largest event of AIChE ITS SC, leading a team of six people and successfully achieving 100% of the target sponsorship for the first time.

HONOURS AND AWARDS (SELECTED)

• 1st Winner of Paper and Poster Competition – PETROLIDA 2024, SPE ITS SC

May 2024

Conducted research focus on techno-economic analysis of a CCUS hub in East Kalimantan, utilizing HYSYS for CO2 capture, MBAL for EGR optimization, and assessing economic feasibility with the PFOD model under a PSC.

Speaker at 48th IPA Conference – Indonesian Petroleum Association (IPA)

Conducted research paper focus on mitigating sleeking on gas protreatment.

December 202

Conducted research paper focus on mitigating sloshing on gas pretreatment in Floating LNG incorporating HYSYS and ANSYS that will be published in AAPG (American Association of Petroleum Geologists) repository.

Top 5 Case Study Competition – PETROLIDA 2023, SPE ITS SC

May 2023

- Successfully increased the production by analyzing the oil reserve, making a decline curve analysis, forecasting production enhancement, designing an infill well, proposing innovation in terms of CO2 EOR, and conducting economic feasibility under the PSC Cost Recovery scheme. MBAL, Pipesim, Hysys, and Excel were utilized.
- 1st Winner of Safety Competition POISE 2022, Universitas Gajah Mada

 November 2022
 Successfully applied fault tree analysis to identify the root causes of fire/flash in Oil and Gas Plant and using Layer of Protection Analysis (LOPA) and HAZOP to give some recommendation such as using Pencillin to combat corrosion.

ADDITIONAL INFORMATION

Technical: ASPEN HYSYS; Pipesim; Matlab; Microsoft Office (Word, Excel, PowerPoint)

Language: Indonesia (Native Speaker); English (IELTS 6.5 Overall Score); Germany (Goethe-Zertifikat A1)