



# MUHAMMAD ILHAM ALI

## CHEMICAL ENGINEERING FRESH GRADUATE

Phone : +62 812 9610 5302  
E-mail : [ilhamali.pane@gmail.com](mailto:ilhamali.pane@gmail.com)  
Linkedin : [linkedin.com/in/ilhamalipane](https://www.linkedin.com/in/ilhamalipane)  
Address : Perumahan Taman Ciruas Permai, Blok E2 No.1, Ciruas, Serang, Banten Province

Motivated young professional with an exemplary academic record and passion to progress in chemical process industries. Involved on local and international organization focused on chemical engineer competencies, which trained leadership, communication, and well-organized team. On his 3rd year of Study, he joined internship as Jr. Process Engineer and started his first career as Jr. Process Safety Engineer which enrich his knowledge in engineering & design in Facility and made him as an excellent participant on industrial fields.

## AREA OF COMPETENCIES

- Engineering and Technology
- Safety in Facility
- Critical Thinking
- Process Modelling and Simulation
- Corrosion Study
- Leadership
- Software Simulation
- Hazard Identification
- Strategic Planning

Software Ability: Aspen Hysys, Matlab, Phast, ECE, Matlab, Ms. Office

## EXPERIENCE

JANUARY 2021-SEPTEMBER 2021

### JR. PROCESS SAFETY ENGINEER, PT SYNERGY ENGINEERING

Joined as Junior Process Safety Engineer. As seven months of work in there, he had completed several kinds of work in safety-related jobs in designing onshore & offshore facility, include of providing:

- Safety Sign Layout Drawing
- Escape Route and Safety Equipment Layout Drawing
- Hazardous Area Classification (HAC) Schedule and Drawing
- Induced Vibration Report
- Noise Study Report
- Non-Flammable Hazard Assessment Report
- Fire Zone Study
- Fire and Explosion Risk Assessment

Also contributed as Material & Corrosion Engineer which provide:

- Corrosion Simulation using ECE software
- Provide Material Selection based on Corrosion Analysis in Equipment, Piping, and Pipeline
- Provide Material Selection Diagram (MSD)
- Develop Material and Corrosion Specification

Contributed in 6 projects of gas processing facility by performing safety analysis and develop recommendation to ensure compliance with international standards such as API, ISO, NFPA, OGP, E&I, ASME, NACE, and also by using safety and corrosion related software.

JUNE 2019-AUGUST 2019

### PROCESS ENGINEER INTERNS, PT PUSTEK E&T

Joined internship at EPC company as process division team. At three months of work in there, he works as same as the other process engineers staff and with guidance from multi-disciple engineering team on there and gained much engineering experience such as creating Pre-Feasibility Study documents and Engineering Design Report. With responsibilities such as :

- Drafting process ideas as the first involved engineering discipline
- Design and Perform process simulations, as reactive process, or pipeline gas stream

- Offering and selecting desired process with safety and quality standards
- Providing process engineering documents and standard operating procedures

Finishing up 7 activities as junior engineer at PT Pustek Projects, with most discipline at natural gas processing: distribution, metering, and dehydration, Nitrogen separation with PSA technology, and Pre-FS of methanol production from natural gas

## EDUCATION

2016-2020

**BACHELOR OF CHEM. ENGINEERING**, INSTITUT TEKNOLOGI SEPULUH

NOPEMBER

Fresh Graduate of Chemical Engineering Department ITS, with overall GPA 3.64. As of now, he had completing two of his final year thesis include of :

1. **Preliminary Plant Design of Methanol Production from Natural Gas Feed**, at AA-Grade of Methanol with adapting Autothermal reforming as synthetic gas processing and multi-tubular methanol reactor.
2. Simulation Research, **Study of Hydrodynamic and Mass Transfer in Sieve Tray Column without Downcomer with addition of Circular Calming Trip using Computational Fluid Dynamic (CFD)**, which aims to study the performance of sieve tray with and without modifications of calming strip to hydrodynamic phenomena and separation effectiveness of the separation column

## ACTIVITIES

FEB 2017-APRIL 2018

**STAFF OF COMPETENCY DEVELOPMENT**, HIMPUNAN MHS. TEKNIK KIMIA ITS

Engaged in hard skill and soft skill competency developing for the chemical engineering students in ITS. With responsibilities such as: design and facilitate chem-eng competency, he then entrusted to handle issue developments field to increase the student's awareness on careers and engineering issues with its output study.

- Held Strategic Issue Study: Future of Renewable Energy in Indonesia

JUN 2018-AUG 2019

**DIRECTOR OF PROFESSIONAL DEVELOPMENT**, AIChE ITS STUDENT CHAPTER

Responsible for planning and arrange various activities which aims to promote and spread awareness by held professionalism programs. As student chapter, we had affiliation with other worldwide student chapter and association with professional member. Provide insight of internship, software skills, and international conference held by AIChE.

- Made up to 4 new projects and 2 weekly agenda that focused on chemical engineer fields. As the results as our AIChE SC great teamwork, we received an Outstanding Student Chapter Award, which shows exceptional level of participation, professionalism, program quality, and its involvement in university and community

JUN 2018-MAR 2019

**COORDINATOR OF EXPERT TEAM**, NOPEC COMPETITION

Volunteered as a junior expert team on 2018 that responsible to provide and scores the exams for NOPEC (National Olympiad of Chemical Engineering) competition in term of Mathematic, Physic, Chemistry, and Basic Chemical Engineering. then lead as a coordinator of expert teams on the next year.

- Improved the exams level with more advancing on chemical engineering insight with basic knowledge from high school education

## **LANGUAGE COMPETENCIES**

- ENGLISH : Intermediate, with TOEFL ITP Score 537
- INDONESIA : Native

South Tangerang, September 6<sup>th</sup>, 2021

**No: 041/SYN-ADM/HR/SKK/IX/2021**  
**Re: Working Experience Reference**

**TO WHOM IT MAY CONCERN**

The undersigned hereby truly certifies that:

Name : Muhammad Ilham Ali Pane  
Working Period : **January 29<sup>st</sup> 2021 – September 6<sup>th</sup> 2021**

He has been employed by PT Synergy Engineering, as Jr. Process Safety Engineer. We acknowledge that during the above said period he performed his duties in a good manner.

At all time he's able to handle major responsibilities and we found him to be a highly committed team player.

We recommend him for the future and hope for his success in the future.

Sincerely Yours,  
PT Synergy Engineering



**PT. Synergy Engineering**

Rosza Maya Melinda  
Human Resources Management



**KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN**  
**INSTITUT TEKNOLOGI SEPULUH NOPEMBER**  
Terakreditasi A oleh BAN-PT, SK No. 288/SK/BAN-PT/Akred/PT/XI/2018

memberikan

**IJAZAH**

kepada:

***Muhammad Ilham Ali***

Nomor Pokok Mahasiswa : 02211640000039

Nomor Induk Kependudukan : 3604092708980001

Lahir di Serang, tanggal 27 Agustus 1998

pada tanggal 28 Agustus 2020 telah menyelesaikan Pendidikan Sarjana (S1)

Program Studi Teknik Kimia

(Terakreditasi A oleh BAN-PT, SK No. 0832/SK/BAN-PT/Akred/S/VI/2016)

berhak menyandang gelar

**SARJANA TEKNIK (S.T.)**

Diterbitkan di Surabaya pada tanggal 4 September 2020

DEKAN

Fakultas Teknologi Industri dan Rekayasa Sistem

Dr. Wawan Aries Widodo, S.T., M.T.  
NIP 19710405 199702 1 001



REKTOR



Prof. Dr. Ir. Mochamad Ashari, M.Eng.  
NIP 19651012 199003 1 003





# INSTITUT TEKNOLOGI SEPULUH NOPEMBER TRANSKRIP / ACADEMIC TRANSCRIPT



**FAKULTAS TEKNOLOGI INDUSTRI  
DAN REKAYASA SISTEM**

**FACULTY OF INDUSTRIAL TECHNOLOGY  
AND SYSTEMS ENGINEERING**

Program Studi / : Teknik Kimia /  
Study Program : Chemical Engineering  
Nama / Name : Muhammad Ilham Ali  
NRP / ID No : 02211640000039  
Tempat, Tanggal Lahir / : Serang  
Place, Date of Birth : 27 Agustus 1998  
Gelar / Degree : Sarjana Teknik (S.T.)

Indeks Prestasi / GPA : 3.64  
Tahun Masuk / Entrance Year : 2016  
Tahun Lulus / Graduation Year : 2020  
Lama Studi / Length of Study : 8 semester  
Predikat / Predicate : Cum Laude / Cum Laude  
Nomor Ijazah / Diploma No : 242012020000775

No	Kode	Mata Kuliah Subject	Sem	Kr	Nilai Grade	No	Kode	Mata Kuliah Subject	Sem	Kr	Nilai Grade	No	Kode	Mata Kuliah Subject	Sem	Kr	Nilai Grade
1	IG141101	Pendidikan Agama Islam	1	2	A	21	TI184415	Ekonomi Teknik	4	3	AB	41	UG184915	Teknopreneur	6	2	A
2	IG141106	Wawasan Kebangsaan	1	3	A	22	TK141241	Engineering Economy	4	3	AB	42	SK184764	Technopreneurship	7	3	A
3	IG141107	Civics	1	3	A	23	TK141341	Mikrobiologi Industri	4	3	AB	43	SK184766	Geokimia dan Mineralogi	7	3	A
4	IG141108	Wawasan Teknologi dan Komunikasi Ilmiah	1	3	A	24	TK141342	Industrial Microbiology	4	3	AB	44	TK184701	Geochemistry and Mineralogy	7	3	A
5	SF141201	Technology and Scientific Communication	1	3	B	25	TK141343	Matematika Teknik Kimia II	4	3	A	45	TK184702	Food Chemistry	7	3	AB
6	SK141207	Bahasa Inggris	1	3	B	26	TK141344	Chemical Engineering Mathematics II	4	3	AB	46	TK184703	Pengolahan Limbah Industri	7	3	BC
7	SM141203	English	1	4	A	27	TK141345	Azas Teknik Kimia II	4	3	A	47	TK184704	Industrial Waste Treatment	7	3	AB
8	TK141207	Fisika Dasar I	1	2	AB	28	TK141346	Chemical Engineering Principles II	4	3	A	48	TK184801	Sintesa dan Simulasi Proses	7	3	AB
9	TK141203	Basic Physics I	1	3	A	29	TK141347	Operasi Teknik Kimia I	4	3	A	49	TK184802	Synthesis and Process Simulation	7	3	AB
10	SM141204	Kimia Dasar	1	2	AB	30	TK141351	Chemical Engineering Operation I	4	3	AB	50	TK184803	Desain Pabrik Kimia dan Ekonomi	7	4	AB
11	TK141221	Chemistry	1	2	AB	31	TK184502	Thermodinamika Teknik Kimia I	4	3	A			Plant Design and Economic	7	6	A
12	TK141222	Kalkulus I	1	3	A	32	TK184503	Proses Perpindahan II	4	3	A			Tugas Penelitian	7	6	A
13	TK141223	Calculus I	1	3	A	33	TK184505	Transport Processes II	4	3	A			Research Project	7	6	A
14	TK141231	Program Komputer	1	2	B	34	TK184604	Bahan Konstruksi dan Korosi	4	2	A			Keselamatan Pabrik Kimia	8	3	B
15	SF141204	Computer Programming	1	2	B	35	TK141462	Material Of Construction & Corrosion	4	3	BC			Chemical Plant Safety	8	3	B
16	TK141232	Fisika Dasar II	2	3	A	36	TK184601	Thermodinamika Teknik Kimia II	4	3	BC			Kerja Praktek	8	2	A
17	TK141233	Basic Physics II	2	3	A	37	TK184602	Chemical Engineering Thermodynamics II	4	3	BC			On Job Training	8	2	A
18	SM141204	Kalkulus II	2	3	A	38	TK184603	Chemical Engineering Reaction Engineering I	4	3	BC			Tugas Desain Pabrik Kimia	8	6	A
19	TK141221	Calculus II	2	2	AB	39	TK184605	Chemical Engineering Application I	4	3	BC			Plant Design Project	8	6	A
20	TK141222	Pengantar Industri Kimia	2	2	AB	40	TK184609	Chemical Engineering Application II	4	3	BC						
21	TK141222	Introduction To Industrial Chemistry	2	2	A												
22	TK141222	Kimia Organik I	2	2	A												
23	TK141223	Organic Chemistry I	2	2	A												
24	TK141223	Kimia Analisa	2	4	A												
25	TK141231	Analytical Chemistry	2	4	A												
26	TK141231	Analisa & Pengolahan Data	3	2	A												
27	TK141232	Data Processing And Analysis	3	2	A												
28	TK141232	Kimia Organik II	3	3	AB												
29	TK141233	Organic Chemistry II	3	3	AB												
30	TK141233	Sistem Utilitas Pabrik	3	2	B												
31	TK141233	Plant Utility System	3	2	B												
32	TK141331	Matematika Teknik Kimia I	3	3	A												
33	TK141332	Chemical Engineering Mathematics I	3	3	A												
34	TK141332	Azas Teknik Kimia I	3	3	AB												
35	TK141332	Chemical Engineering Principles I	3	3	AB												
36	TK141333	Proses Perpindahan I	3	3	A												
37	TK141333	Transport Processes I	3	3	A												
38	TK141334	Kimia Fisika	3	4	A												
39	TK141334	Physical Chemistry	3	4	A												
40	TK141334																

PENDIDIKAN FORMAL

SARJANA (S1) : TEKNIK KIMIA

Th. 2020

KETERAMPILAN

**PEMERINTAH KABUPATEN SERANG**  
DISNAKER KAB.SERANG  
JL. KH. FATAH HASAN NO.25 SERANG, PROVINSI BANTEN  
TELP : 0254 200589

**KARTU TANDA BUKTI PENDAFTARAN PENCARI KERJA**

No. Pendaftaran Pencari Kerja : 3604 - 12265 - 23/12/2020

No. Induk Kependudukan : 3604092708980001



Nama Lengkap : M ILHAM ALI  
Tempat / Tgl. Lahir : SERANG / 27-08-1998  
Jenis Kelamin : LAKI-LAKI  
Status : BELUM KAWIN  
Agama : ISLAM  
Alamat : TAMAN CIRUAS PERMAI BLOK E1 NO 31, KEC CIRUAS, KAB SERANG, BANTEN  
Telp/Hp : KEC. CIRUAS, KAB. SERANG, PROV. BANTEN  
Berlaku s.d : 081296105302  
23/12/2022





# CERTIFICATE OF ACHIEVEMENT

*This is to certify that*

**MUHAMMAD ILHAM ALI, S.T**

*achieved the following scores on the*

**TOEFL ITP® Test**

Listening Comprehension:	56
Structure & Written Expression:	47
Reading Comprehension:	58
<b>Total:</b>	<b>537</b>

Under the auspices of:  
LBI FIB UI  
**At:** JAKARTA, Indonesia  
**Date:** 08 Oct 2021  
Bronze: 09853431

*Mohammad Kousha*

Mohammad Kousha  
General Manager  
Global Education Division, ETS