



Riska Ayu Ramadhana Putri

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SUMMARY

Industrial Chemical Engineering Fresh Graduate from Institut Teknologi Sepuluh Nopember (ITS) with GPA 3.45/4.00, experienced in Quality Control, Process Engineering, and material-based Research & Development. Hands-on experience in chemical product testing, raw material inspection, final product release, and process evaluation, with interest in laboratory testing, experimental design, data interpretation, and technical reporting. Strong analytical, problem-solving, and project management skills with a proven track record of delivering technical and business-oriented projects.

EDUCATION

Institut Teknologi Sepuluh Nopember | Industrial Chemical Engineering | GPA: 3.45/4.00 Aug 2022 – Aug 2026

Area of Interest: Material characterization, chemical production processes, industrial process operations, research & development (R&D), quality control/assurance, HSE (Health Safety & Environment), and process optimization.

Achievements:

- **Achieved** the highest Semester GPA of 3.94 in the 8th/final semester.
- **Top 10 finalists in the National MTQMN Scientific Writing Competition**, competing against 100+ university teams from across Indonesia while representing Institut Teknologi Sepuluh Nopember.
- **Maintained strong academic performance** across 8 semesters with a consistent record of continuous improvement.
- **Awarded a scholarship from Yayasan Manarul Ilmi ITS**, receiving residential support and participating in a 3.5-year Qur'an memorization and development program as one of approximately 30 selected ITS students.

EXPERIENCE

Process Engineer Intern | PT Sindopex Perotama Hydrogen Peroxide Manufacturing Plant Aug 2025 – Nov 2025

- Applied core chemical engineering principles to real industrial operations by observing the full production line of **hydrogen peroxide**, including hydrogenation, oxidation, extraction, and concentration stages with **oxidation antraquinon method** and evaluated equipment performance.

Quality Control Intern | PT Sindopex Perotama Hydrogen Peroxide Manufacturing Plant Jul 2025 – Aug 2025

- **Performed routine quality testing** for hydrogen peroxide products, including KMnO₄ titration, pH measurement, density analysis, stabilizer concentration **evaluation**, and impurity detection to **ensure compliance** with internal QC standards.
- **Conducted** incoming **raw material inspection**, verifying **certificate of analysis (CoA)**, confirming physical & chemical properties, and ensuring all raw materials **met acceptance specifications** before production use.
- **Executed** final product release checks, ensuring batch-to-batch consistency, **validating** critical parameters, and **confirming product suitability** prior to packaging and shipping.

International Student Mobility through TVET & STEM | Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia Oct – Nov 2025

- Selected as one of **approximately 15 ITS students** to participate in an international student mobility program focused on TVET, STEM, NDT skills, community service, and cross-cultural understanding.
- **Developed practical exposure to Non-Destructive Testing (NDT)** techniques and international academic collaboration mobility program.

ORGANIZATION

Treasurer of Communication & Information Departement | HMTKI FV ITS Apr 2024 – Mar 2026

- **Managed** departmental financial records and budgets with 100% transaction accuracy.
- **Assessed** departmental funding needs and provided structured financial planning, leading to a 15% reduction in operational costs and improving budget efficiency

Fungsio of Member Development | UKM IQS ITS Jun 2024 – Jan 2025

- **Mentored and supervised** a team of 6 staff members in implementing UKM IQS ITS's member development program and assigned work plans.
- **Coordinated** the preparation of >10 participants in each MTQMN competition category through structured training tailored to specific competition requirements.

Staff of Design | Development Center of Vocational Entrepreneurship ITS July 2023 – Apr 2024

- **Designed 100+ visual assets** based on project briefs for entrepreneurship programs, including startup incubator training, entrepreneurship competitions, and business case delegation activities.

- **Developed** presentation materials, promotional content, and event visuals to support the organization's entrepreneurship programs and strengthen communication with participants and stakeholders.

PROJECT

Final Project - Development of Bilayer Double Network Hydrogel Based On K-Carrageenan/Polyvinylalcohol/Hydroxyapatite for osteochondral scaffold applications (for Q1/Q2 publication)	Jul 2025 – Aug 2026
• Fabricated hydrogel formulations with varying material ratios and evaluated physical, chemical, antibacterial, and bioactivity properties. • Conducted FTIR, XRD, antibacterial, SBF bioactivity, and SEM- EDX analysis.	
HAP-CR Nano Hydroxyapatite Product: Utilization of Crab Shell (<i>Portunus pelagicus</i>) as a Natural Calcium Source for Sustainable Dental Implant Solutions (PKM - K 2025)	Dec 2024 – Jul 2025
• Processed crab shell waste as a calcium precursor for hydroxyapatite development. • Evaluated material properties and product potential for dental implant applications.	
Internship Project - Performance Analysis of Parallel and Series Heat Exchanger Configurations in Oxidation Process	Jun 2025 – Dec 2025
• Analyzed 2 heat exchangers under parallel and series configurations to compare heat transfer performance. • Calculated heat duty, LMTD, overall heat transfer coefficient, NTU, and effectiveness for process evaluation.	
Preliminary Design of a Xylitol Production Plant (Capacity: 9000 kg/year) from Empty Fruit Bunch (EFB) of Oil Palm Using Hydrolysis Enzymatic & Xylose Reductase Fermentation as Healthier Artificial Sweeteners	Jun 2024 – Jun 2025
• Developed process flows and evaluated major process units using Aspen Plus and Aspen HYSYS. • Conducted process simulation and economic evaluation to assess plant feasibility effectiveness for process evaluation.	
Recipient of National Research Funding of 10 million IDR “Coating Innovation on the Surface of 3D Printing PLA Suture Anchor Based on Hydroxyapatite Shell Conch Pilla Ampullacea”	Jan 2024 – Aug 2024
• Received IDR 10 million in National Research Funding for material development research. • Developed the initial research plan and experimental design for hydroxyapatite-based surface coating.	
ExoHome: Transforming Physiotherapy Accessibility for Stroke Patients Through the Provision of Exoskeletons at Telerehabilitation-Based Therapy Homes (PKM – GFT 2024)	Oct 2023 - Jan 2024
• Developed a technology concept integrating an exoskeleton with a home-based rehabilitation system. • Contributed to project development focused on improving accessibility to physiotherapy services.	

COURSE & CERTIFICATION

• FSMS Training : GMP & SSOP, PRP ISO/TS 22002-100:2025, HACCP, ISO 22000:2018	Sep, 2026
• ISO/IEC 17025:2017 - Laboratory Management Systems Alison academy	Aug, 2026
• Young General K3 Certification LSP ITS	Aug, 2026
• Non-Destructive Testing Program Universitas Malaysia Pahang Al-Sultan Abdullah	Okt, 2025
• British Council English Score UPBG ITS	Jul, 2025
• Halal Product Process Companion Training Centre for Halal Studies ITS	Jun, 2024

SKILL

Soft Skill	Analytical Thinking Problem-Solving Attention to Detail Troubleshooting Technical Reporting Teamwork.
Hard Skill	Laboratory Testing Material Characterization CoA Inspection Aspen HYSYS Aspen Plus MATLAB Simulink OriginLab ImageJ QC Testing Raw Material Inspection Final Product Release HAZOP P&ID/PFD Process Optimization ISO/IEC 17025