



Muhammad Hilmi Naufal Fahadi

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Fresh graduate from Institut Teknologi Sepuluh Nopember (ITS), majoring in Industrial Mechanical Engineering with a focus on Energy Conversion Engineering Technology. Previously active in the HMDM ITS organization.

I am passionate about Computational Fluid Dynamics (CFD) pump simulation and mechanical maintenance. The **title of my final project is "Volute Design and Numerical Study of the Effect of Impeller Blade Variation on the Performance of PT X PDAM Centrifugal Pumps"**. Conducted CFD based design and analysis of a centrifugal pump volute (15 m³/h) at PDAM PT X; optimized impeller blade variations, achieving best performance with 8 blades (Head 66.35 m, 83% efficiency). I am totally dedicated and committed to the activities I am participating in.

As a fresh graduate **I am extensively enrich my competencies in such of any Trainings and Certifications** which i believe it can contribute a lot in my career development and for the company that i will be working on. Such trainings and certifications that I attended were **CIDPLM (Supply Chain), TPM (Total Productive Management) AM & PM, and Ahli AK-3 Umum**.

Education Level

Institut Teknologi Sepuluh Nopember - Surabaya, Indonesia

Aug 2021 - Aug 2025

Bachelor Degree of Industrial Mechanical Engineering – Majoring in Energy Conversion Technology

- Graduated in August 2025 (8 semesters) with a cumulative GPA: of 3.21/ 4.00.
- **Final Project : Volute Design and Numerical Study of the Effect of Variation in the Number of Blades on the Impeller on the Performance of PT X Centrifugal Pump.**

Professional Experiences

Internship at PT.Smelting- Gresik, Indonesia

Feb 2025 – Jun 2025

Mechanical Maintenance

PT Smelting is Indonesia's first copper refining and processing company. Established in 1996 as a joint venture between PT Freeport Indonesia and Mitsubishi Materials Corporation, PT Smelting is located in Gresik, East Java.

- Maintenance Mechanical Equipment : During my 4 months internship, I did many things i.e : performing preventive maintenance for equipment at the PT Smelting refinery plant such as : replacing bearings on separators, new centrifugal pump installation and replacing hydraulic cylinders on robots used to move copper, hand on in execution of PM task (check list), attend daily maintenance briefing, learned procedure for repair and maintenance tasks.
- Internship Project :
 - **Title : Analyze and validate of blockages in the suction line of the electrolyte 5th circulation pump installation.**
 - Root cause : the pipe blocked due to flowing coagulated material
 - Improvement action : Installed by pass pipe line so that pipe's cleaning can be done without shutting down the system

Organizational Experiences

HMDM ITS - Indonesia

Mar 2024 – Jan 2024

Head of Social Strategic Action & Community Services Development Buerau HMDM ITS 2024

HMDM ITS stands for Himpunan Mahasiswa Teknik Mesin Institut Teknologi Sepuluh Nopember, which is the Mechanical Engineering Student Association at Institut Teknologi Sepuluh Nopember (ITS). It is a student organization that focuses on fostering academic, professional, and social development among mechanical engineering students through various activities, events, and community services.

- Responsible as the PIC for monitoring and evaluating the development and execution of HMDM ITS work programs and agendas, in line with the strategic directions set by the Head of Department and Head of Association

Students Engineering Challenge 5.0 -Surabaya, Indonesia

Jan 2023 – Feb 2023

Head of Accommodation Division

Student Engineering Challenge (SEC) is an engineering competition organized by the Department of Industrial Mechanical Engineering, Vocational Faculty, Institut Teknologi Sepuluh Nopember (ITS). This competition is aimed at high school and vocational school students across Indonesia.

- Responsible for picking up and dropping off participants
- Responsible for coordinating the pickup and drop-off schedules for participants.

Gerigi ITS-Surabaya, Indonesia

Jun 2022 – Aug 2022

Staff of Security and License

Gerigi ITS is a student organization at Institut Teknologi Sepuluh Nopember (ITS) focused on fostering creativity, innovation, and leadership among students. It serves as a platform for members to develop their skills through various activities, workshops, and community projects, aiming to contribute positively to both the campus and wider community.

- Responsible for handling permits.
- Responsible for event security.

Certification & Training

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- Certified International Diploma in Procurement & Logistics Management (CIDPLM) SCM – **held by PASAS Institute Singapore** : Oct 2025
 - Demand Management.
 - Purchasing, Procurement, and Strategic Sourcing Management.
 - Supplier Relationship Management.
 - Order Management.
 - Logistic Management.
 - Inventory Management.
 - Warehouse Management.
 - Transportation Management.
 - SCM Performance Management.
 - TPM (Total Productive Management) Training and Workshop – held by Adi Hertanto, Former AM Master Trainer of PT MBI (Heineken Group): Oct 2025
 - **PM (theory and workshop)** : Preventive Maintenance system set-up, OEE and 6 Big Losses, RCFA (5 why), BDA (Breakdown Analysis), Kaizen, MTBF, MTTR, MTBS
 - **AM (theory and workshop)** : AM Team Step 1-2-3, 5S, Tagging system, CILT Standard, OPL (one point lesson), Unique Training Material, VM (visual management)
 - Ahli K3 Umum Kemenaker — **held by Mutiara Mutu Sertifikasi** Oct 2025
 - Industrial Visit at PT. Semen Gersik Tuban — **held by HMDM ITS** Jul 2024
 - LKMM Pra-TD — **held by BEM FV ITS** Oct 2021

Skills

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- **Hard Skills**: CFD (Computational Fluid Dynamic), Microsoft Word, Microsoft Excel, and Microsoft Power Point.
 - **Hobby** : Hiking (Mt Prau, Mt Lorokan), Badminton.
 - **Languages** : English and Indonesia.
 - **Achievements** : 1st place in the flag football competition in Surabaya - 2019