

MUHAMMAD FIKRI NADHIF

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Master of Civil Engineering from Institut Teknologi Sepuluh Nopember (2025) with a concentration in Transportation Management and Engineering. Skilled in highway engineering, green transportation, and road safety, with research experience on the operational cost modeling of battery electric vehicles. Involved in professional projects such as the UK PACT Future City 2024 road safety study, airport pavement analysis, and railway level crossing infrastructure assessments. Actively engaged in international conferences and scientific publications, with a strong commitment to advancing education, research, and community service in the field of transportation.

EDUCATION

Institut Teknologi Sepuluh Nopember – Surabaya, Indonesia (2023 – 2025)

Civil Engineering Department

Master of Engineering – Transportation Management and Engineering | GPA 3.88 / 4.00 (Cumlaude)

- Master Thesis : Modelling of Vehicle Operating Cost of Battery Electric Vehicles
- Awardee of the ITS Freshgraduate Scholarship Program

Institut Teknologi Sepuluh Nopember – Surabaya, Indonesia (2019 – 2023)

Civil Infrastructure Engineering Department

Bachelor of Applied Science in Civil Engineering | GPA 3.59 / 4.00 (Cumlaude)

- 1st winner of Bridge Design Competition of Civil Cup Politeknik Negeri Jakarta 2020
- Final Project : Comparasion Study of Dhoho International Airport Flexible Pavement Thickness Using Federal Aviation Administration (FAA) and Load Classification Number (LCN) Methods

WORK EXPERIENCE

Infrastructure Planning Staff, Directorate of Planning and Strategic Development Institut Teknologi Sepuluh Nopember

August 2023 – Present

- Conducted surveys and produced assessment reports for more than 100+ reviews, resulting in recommendations for infrastructure development at Institut Teknologi Sepuluh Nopember.
- Prepared owner estimation calculations and evaluated budget plans for more than 20+ projects, serving as the basis for project kick-offs and negotiations at Institut Teknologi Sepuluh Nopember.
- Supervised the project from initiation, execution, to handover, ensuring compliance with the planned specifications.

Civil Engineering Intern, Surbana Jurong Pte. Ltd. – Dhoho International Airport Construction Project

June 2021 – November 2021

- Responsible to review 60+ shop drawings weekly
- Control the quality of work include the subbase course and asphalt work

- Successfully reviewed work method statement
- Responsible to review 30+ daily report on monthly basis
- Successfully helped to increase time efficiency of core drill form for quality control report by +14%

PROJECT EXPERIENCE

Transportation Specialist, PT. Swakarya Mandiri Amerta - Road Traffic Injury Surveillance Systems Strengthening Consultancy on UK PACT Future Cities 2024

July 2024 – March 2025

An analysis of accident data in the cities of Surabaya and Makassar was conducted for the period from 2019 to 2024, focusing on identifying critical patterns and trends. A blackspot and blacklink analysis was also carried out to determine locations with the highest concentration of accidents and potential risk corridors. Based on these findings, recommendations were provided to reduce the fatality rate in traffic accident incidents in both cities, offering actionable insights to support safer and more sustainable urban transportation systems.

Transportation Freelance, Evaluation of Pavement Condition Index (PCI) – Taxiway Facilities, Juanda International Airport

November 2024 – April 2025

Verify pavement condition survey results on taxiway facilities to ensure the accuracy and reliability of collected data. Perform comprehensive pavement condition analysis using the Pavement Condition Index (PCI) method in accordance with international standards. Provide technical assessment to support maintenance and rehabilitation planning for airside pavement infrastructure.

Speakers, Askari Nusantara Group - Civil Engineering Course

December, 2024

Served as a speaker in a Civil Engineering Course with the theme “*Road Performance Simulation Using PTV Vissim*”, conducted online and attended by more than 30 participants. The discussion outline covered an introduction to the PTV Vissim application, an overview of regulations in road performance assessment, and a simulation of road performance modeling using PTV Vissim.

Surveyor Freelance, CV. Pratama Wari - Identification of Infrastructure Needs for Railway Crossings on the Talun–Garum–Blitar Section, Blitar–Kertosono Line

November 2024

Measures the geometric conditions of level crossings along the Talun–Garum–Blitar section, calculates the traffic volume passing through the crossings along with delay time and queue length, and identifies the completeness of infrastructure and facilities at the level crossings.

PUBLICATION

Proceedings of the 4th International Conference of Construction, Infrastructure, and Materials – Scopus
Q4

March 2026

Title of Manuscript “Modeling Operational Costs of Battery Electric Vehicles Based on Speed Patterns”

Authors Muhammad Fikri Nadhif, Anak Agung Gde Kartika and Wahyu Wibowo

Fourth International Conference of Construction, Infrastructure, and Materials (ICCIM 2025)

July 2025

Title of Manuscript “Modeling Operational Costs of Battery Electric Vehicles Based on Speed Patterns”

Authors Muhammad Fikri Nadhif, Anak Agung Gde Kartika and Wahyu Wibowo

The 6th CeReForm (Civil Engineering Research Forum)

February 2024

Title of Manuscript “Probabilitas Pemilihan Moda Antara Feeder Wira-Wiri Dengan Ojek Online Akibat Selisih Biaya di Kota Surabaya”

Authors Muhammad Fikri Nadhif, Muhibuddin Nugroho

Jurnal Teknik ITS – Sinta 4

Desember 2024

Title of Manuscript “Perbandingan Tebal Perkerasan Lentur Landas Pacu Bandara Internasional Dhoho Menggunakan Metode Federal Aviation Administration (FAA) dan Load Classification Number (LCN)”

Authors Muhammad Fikri Nadhif, Rachmad Basuki, Amalia Firdaus Mawardi

CERTIFICATION

- **Building Information Modelling (BIM) Modeller – BJKW IV Surabaya** (September 2024)
- **Site Manager for Building Construction Works Level 6 – BNSP** (December 2024)
- **Road Maintenance Executive Level 6 - BNSP** (October 2023)

COURSE

- **Shortcourse Desain Perkerasan Jalan Series 2 Perencanaan dan Pengendalian Mutu Pekerjaan Campuran Beraspal – Sipil Pedia Academy** (August 2025)
- **Infraworks Geometric Road Modelling Basic to Intermediatte Level – KursusSipil** (August 2025)
- **Training BIM Modeller: Pemodelan Geometrik Jalan dengan Civil 3D – KursusSipil** (August 2025)
- **Dasar Teori dan Case Study Penggunaan PKJI 2023 – KursusSipil** (January 2025)
- **Online Workshop PTV Vissim – Kursus Sipil** (September 2024)

SKILL

Language : Indonesian (Native), English (Professional Working Proficiency) TOEFL 500

Soft Skill : Leadership, Analytical Skill, Collaboration, Friendly Manner, Problem Solving, Public Speaking, Team Management

Technical :

- Transportation : PTV Vissim, FAARFIELD

- Structure : SAP2000
- Modelling : Autodesk Revit
- Drawing : AutoCAD
- Daily Use : Microsoft Office (Microsoft Word, Microsoft Excel, Microsoft Project, Visio, Power Point).