

SALSA AMELIA SEPTIANA

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github.com/salsamelia | Semolowaru Utara, Sukolilo, Surabaya

PROFESSIONAL SUMMARY

Motivated Telecommunication Engineering student (Diploma IV) at EEPIS with hands-on experience in LTE/5G network configuration and experimentation (Open5GS, srsRAN), IoT-based system development, and deep learning for computer vision. Proficient in Python, C/C++, Java, and Linux system administration. Currently conducting international research at National Formosa University, Taiwan (FTIP 2026). Seeking an internship opportunity in Network Engineering, IoT Engineering, or AI Engineering within the telecommunications industry.

EDUCATION

Electronic Engineering Polytechnic Institute of Surabaya (EEPIS) 2023 – Present

Diploma IV (D4) — Telecommunication Engineering

Relevant Coursework: Telecommunication System Integration · Digital Communication · Signal Processing · 2G/3G/4G/5G Network Architecture · Fiber Optic Access Networks (FTTH/GPON) · Telephony Systems · Project Management

SMA Negeri 1 Widodaren 2020 – 2023

Senior High School — Science Major (Matematika dan IPA)

EXPERIENCE & PROJECTS

Research Intern · National Formosa University (NFU) Feb 2026 – Present

Formosa Talent Internship Program (FTIP) — Yunlin, Taiwan | Tech Stack: YOLOv11 · DeepSORT · Python · Raspberry Pi 5 · Drone (UAV)

- Developing a Lightweight UAV-Based Vehicle Detection System for traffic congestion monitoring and illegal parking detection, integrating YOLOv11 object detection with DeepSORT multi-object tracking deployed on a Raspberry Pi 5 edge computing platform onboard a drone.
- Optimising YOLOv11 model inference for resource-constrained edge hardware (Raspberry Pi 5), achieving real-time vehicle detection and tracking from aerial UAV footage in a cross-cultural international R&D environment.

5G/LTE Network Deployment & Testing Maret – April 2026

Academic Project — EEPIS, Surabaya | Tech Stack: Ubuntu/Linux · Open5GS · srsRAN · SDR-based eNodeB

- Configured and deployed a functional LTE network environment on Ubuntu using SDR-based eNodeB (srsRAN) and Open5GS core, enabling internet connectivity, voice calls, and SMS transmission.
- Programmed and validated end-to-end LTE signal transmission pipeline, demonstrating practical knowledge of 4G/5G RAN architecture and open-source core network components.
- Diagnosed and resolved RF signal interference and network configuration issues through systematic Linux-based troubleshooting.

Smart Lab Monitoring System (SIMONLAB) — Front-End Developer 2025

Academic Project — EEPIS, Surabaya | Tech Stack: HTML · CSS · JavaScript · Figma · Python

- Designed and developed a responsive web dashboard for an IoT-based Smart Laboratory Monitoring System, integrating real-time sensor data visualization of lab schedules, usage history, and room status.
- Created high-fidelity UI/UX prototypes in Figma prior to implementation, streamlining development cycles and aligning team expectations.
- Integrated front-end components with IoT data streams to support live monitoring of laboratory sensor nodes.

LOGRAK National Competition — Finalist, Renewable Energy Innovation Nov 2024 – Jan 2025

State Polytechnic of Malang (POLINEMA), Malang, Indonesia

- Advanced to the national final round of a competitive creative design competition by proposing an innovative waste-to-energy system concept among teams from across Indonesia.
- Delivered a persuasive technical presentation to an expert judging panel, demonstrating strong engineering communication and problem-solving skills.

LEADERSHIP & ORGANIZATIONS

Head, Community Service Department (PENGMAS)

2024 – 2025

EEPIS Bidikmisi Organization (E-BIO) — Surabaya

- ▶ Led planning and execution of community service programs, coordinating 12 core members and 30+ volunteers across multiple outreach initiatives.
- ▶ Established and managed partnerships with 3+ local communities, ensuring sustainable social impact and project continuity.

Media & Information Committee Member

2024 – 2025

EEPIS English Community (E2C) — Surabaya

- ▶ Produced and managed 20+ digital media content pieces and event documentation to promote cross-cultural student engagement.

Workshop Division Member

2024 – 2025

PENS International Cooperation Office (PICO) — Surabaya

- ▶ Coordinated international workshop logistics and engagement events, supporting EEPIS's global academic cooperation initiatives.

TECHNICAL SKILLS

Programming	Python · C · C++ · Java · Shell Scripting (Bash)
Networking	LTE/4G/5G Network Configuration · Open5GS (Core Network) · srsRAN (eNodeB/gNB) · SDR-based Network Deployment · Network Optimization · Radio Access Network (RAN) · Drive Test · Path Loss Analysis · FTTH/GPON · Telecommunication System Integration
AI & Computer Vision	Deep Learning · YOLOv11 (Object Detection) · DeepSORT (Multi-Object Tracking) · Computer Vision · Edge AI Deployment · Model Evaluation (IoU, Dice Score, mAP)
IoT & Systems	IoT System Development & Integration · Edge Computing (Raspberry Pi 5) · UAV/Drone Systems · Real-Time Sensor & Camera Data Processing · Technical Troubleshooting (Network & Hardware) · Basic Circuit Design (Proteus)
Operating Systems	Ubuntu/Linux (Advanced — file system, network config, package management, shell automation) · Windows OS
Development	HTML · CSS · JavaScript · Figma (UI/UX Prototyping) · Data Analysis & Technical Report Writing
Productivity	Microsoft Office Suite (Word, Excel, PowerPoint)

LANGUAGES

Indonesian — Native **English** — Proficient (CEFR B1–B2; Reading, Writing, Speaking, Listening) **Mandarin** — Basic

PERSONAL DETAILS

Date of Birth: 6 September 2005, Probolinggo, Indonesia **Nationality:** Indonesian **Religion:** Islam

Portfolio: <https://salsamelia.github.io/portfolio/> **Soft Skills:** Cross-Cultural Communication · Leadership · Critical Thinking · Problem-Solving · Research & Technical Writing · Project Coordination · Adaptability