

# Ardhya Novri Ramadhan

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Electrical Engineering graduate with experience in electronics, airport electrical systems, student organizations and community projects. Develops embedded monitoring systems and AI-assisted software, and supports ENVIID's digital work.

## EDUCATION

**Diponegoro University** Aug 2022 - Sep 2026

*B.Eng. in Electrical Engineering*

GPA: 3.43/4.00. Graduated on 29 September 2026.

**SMA Negeri 5 Bekasi** Jul 2019 - May 2022

*Natural Sciences*

## PROFESSIONAL AND COMMUNITY EXPERIENCE

**ENVIID Carbon Solutions** Oct 2026 - Present

*Chief Technology Officer / IT & Digital Lead*

Developed the company website with AI assistance, including project information, a carbon calculator and a digital MRV workflow demonstration.

**Diponegoro University** Jan 2026 - Feb 2026

*Community Service Participant (KKN)* Mutihan, Klaten

- Helped assemble and install a solar-powered Smart Owl House, including sensors, battery and controller. Prepared operating and maintenance guidance.
- Assisted village administration, Posyandu activities, BUMDes bookkeeping and community cleanups. Joined mosque and cemetery painting activities.
- Supported school scouting activities and earthquake preparedness education. Helped produce and hand over the village profile video.

**PT Angkasa Pura Indonesia** Jul 2025 - Aug 2025

*Internship Trainee*

- Rotated for five weeks in UPS/converter systems and three weeks in electrical protection at Soekarno-Hatta International Airport.
- Visited substations and focused on learning protection relays. Received SCADA instruction and observed PLC installations.

**Diponegoro University** 2025

*Basic Electronics Practicum Assistant*

Assisted students with laboratory activities and basic electronic components.

**Redesma Technologies** Jan 2025 - Feb 2025

*Electronics Technician*

Worked on IoT temperature monitoring and DC motor control. Co-authored an SOP for comparing Blynk and Thingier.io using ESP32 and a DS18B20 sensor.

## SKILLS

**Electrical and embedded:** Electronics, sensor integration, C, STM32 HAL, STM32CubeIDE, ADC, DMA, timers and UART. Field learning in UPS/converters, protection relays and SCADA.

**Software and media:** Python, Tkinter, React, FastAPI, Git, automated tests, digital filtering, RMS/MAV extraction, CSV/JSON processing and Canva.

## ORGANIZATIONS AND EVENT COMMITTEES

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| <b>Society of Electronics Engineering Division (SEED)</b><br><i>Head of Media Division</i><br>Served as Head of Media for the 2025 student bureau at Diponegoro University.                                                                                         | 2025                |
| <b>Google Student Ambassador Program</b><br><i>Google Student Ambassador</i><br>Completed the student program and received recognition for championing Google AI within the campus community.                                                                       | Class of 2025       |
| <b>Society of Petroleum Engineers (SPE)</b><br><i>Student Member</i><br>Joined professional learning activities, including technical writing and geothermal drilling sessions.                                                                                      | Sep 2024 - Dec 2025 |
| <b>ENIGMA Vol. 3, SEED / HME UNDIP</b><br><i>Workshop Instructor</i><br>Taught basic electronics workshop activities involving circuits, wiring and PCB work.                                                                                                       | Oct 2024            |
| <b>Indonesia International Sustainability Forum (ISF)</b><br><i>Organizational Delegate</i><br>Participated in the sustainability forum as an organizational delegate.                                                                                              | Sep 2024            |
| <b>Himpunan Mahasiswa Elektro, Diponegoro University</b><br><i>Creative Design Staff, Kantor Media Informasi (KMI)</i><br>Supported student organization media and design work. Assigned as a co-responsible staff member for the HME Rewind documentation program. | 2024                |
| <b>LKMM-PD, HME UNDIP</b><br><i>Event Committee Member</i><br>Served on the committee for introductory student management and leadership training.                                                                                                                  | 2023                |
| <b>PMB Teknik Elektro, Diponegoro University</b><br><i>Logistics / Equipment Committee Member</i><br>Prepared equipment and facilitated the needs of the new-student welcoming activities.                                                                          | 2023                |
| <b>Decarbonizing Indonesia</b><br><i>Campaign Contributor</i><br>Created social media campaign and design materials about decarbonization.                                                                                                                          | Nov 2022 - Jan 2023 |
| <b>PKKMB and Pendikar, Diponegoro University</b><br><i>Participant</i><br>Completed the 40-hour new-student orientation and character education program, 15-20 August 2022.                                                                                         | Aug 2022            |
| <b>Information and Communication Technology (ICT), SMA Negeri 5 Bekasi</b><br><i>Vice Secretary</i><br>Prepared work-program and accountability documents, and maintained attendance and member assessment records.                                                 | Jan 2021 - Dec 2021 |
| <b>ICT Leadership Regeneration, SMA Negeri 5 Bekasi</b><br><i>Committee Secretary and Session Instructor</i><br>Prepared event administration and delivered the secretarial training session for incoming ICT committee members.                                    | Nov 2021            |
| <b>CINOTIC, SMA Negeri 5 Bekasi</b><br><i>Event Secretary</i><br>Supported proposals, reporting and event administration for the Science Techno & Journalistic Competition.                                                                                         | 2021                |

## PROJECTS AND TECHNICAL PROPOSALS

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| <b>RepairGate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Oct 2026     |
| Developed a code-repair verifier with protected tests, independent holdout checks and exported patch decisions. Includes an optional local Ollama adapter and a recorded-candidate demonstration.                                                                                                                                                                                                                                                                                                    |              |
| <b>ApplyProof</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Oct 2026     |
| Developed an application workspace with a reviewed fact ledger, explicit skill comparison, office/worksites distinction and traceable application drafts. Optional AI selects fact IDs for verbatim drafting.                                                                                                                                                                                                                                                                                        |              |
| <b>DataRescue</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Oct 2026     |
| Implemented schema-driven CSV/JSON repair, quarantine and auditable exports with automated checks.                                                                                                                                                                                                                                                                                                                                                                                                   |              |
| <b>uart-fixture-kit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Oct 2026     |
| Developed reusable synthetic UART fixtures and virtual-time replay to reproduce fragmented, malformed and concatenated byte streams without serial hardware.                                                                                                                                                                                                                                                                                                                                         |              |
| <b>Personal Portfolio / Anak Kos Survival</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2026         |
| Developed an engineering portfolio with project evidence and a simulated EMG preview. Earlier work includes a seven-day browser game and an interactive portfolio world, retained in the project archive.                                                                                                                                                                                                                                                                                            |              |
| <b>Nusantara SolarWing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2026         |
| Prepared a model-based concept package using historical solar data, wind sensitivity and battery reserve planning for maritime patrol scenarios.                                                                                                                                                                                                                                                                                                                                                     |              |
| <b>EMG Acquisition and Monitoring System</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thesis, 2026 |
| Academic thesis, Diponegoro University.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |
| <ul style="list-style-type: none"><li>• Implemented 12-bit ADC acquisition with DMA on STM32F411CEU6 and SEN0240 at a nominal 4 kHz sampling rate.</li><li>• Applied 20 Hz high-pass, 500 Hz low-pass and 50 Hz notch filtering, with RMS/MAV extraction over 400 samples.</li><li>• Built the Python/Tkinter interface for UART telemetry at 115200 baud, live plots, status monitoring and CSV export, with coding-agent assistance. Teammates handled the stimulator and fuzzy control.</li></ul> |              |
| <b>PLTA Jatigede Case Study</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2025         |
| Contributed the introduction and task allocation to a group presentation covering NPV, benefit-cost ratio and payback period.                                                                                                                                                                                                                                                                                                                                                                        |              |
| <b>Redesma Technologies / Timor-Leste Concept</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2025         |
| Authored a proposal for rural technology options, including solar-powered irrigation, community warning systems and digital monitoring.                                                                                                                                                                                                                                                                                                                                                              |              |
| <b>EnvironmentID: IoT-powered Biofiltration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2024         |
| Co-authored an abstract proposing smart sensors and oyster ecosystems for coastal water-quality monitoring and biofiltration.                                                                                                                                                                                                                                                                                                                                                                        |              |
| <b>GOVTECH / Gov-AI Hackathon Proposal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2024         |
| Prepared a proposal for integrated digital public services using APIs, responsive interfaces and AI-assisted information services.                                                                                                                                                                                                                                                                                                                                                                   |              |

## **COURSES, WORKSHOPS AND CERTIFICATIONS**

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**Sep 2026: Introduction to Internet of Things**, Cisco Networking Academy. Completed 27 September 2026.

**Sep 2025: SPENTRODUCE: Exploring the Downstream Oil and Gas Industry**, SPE UNDIP Student Chapter. Participant.

**Jan 2025: AI-Powered Shopping Ads Certification**, Google Skillshop. Historical credential, expired January 2026.

**Oct 2024: Workover and Well Service Talks**, IATMI Student Chapter ITB. Participant.

**Sep 2024: Automation Clinic: Motor Protection and Control**, Engineering Academy. Participant.

**Sep 2024: How to Write a Good Technical Paper**, SPE. 1.5-hour continuing education session.

**Sep 2024: Geothermal Drilling in Volcanic and Metamorphic Basins**, SPE. 1.5-hour continuing education session.

**Sep 2024: Strategies in Geothermal Exploration: Maximizing Indonesia's Potential**, SPE UNDIP Student Chapter. Guest lecture participant.

**Sep 2024: Ethics of Artificial Intelligence: Navigating Responsible Technology for the Future**, SkilHub Community by Skilvul / Nocturnailed. Webinar participant.

**May 2024: Fundamentals of Digital Marketing**, Google Digital Academy / Skillshop. Completed 27 May 2024.

**May 2024: Introduction to Electronics**, The Open University OpenLearn. Completed a 10-hour course on 21 May 2024.

**May 2024: IT: Device to Device Communication**, The Open University OpenLearn. Completed a 20-hour course on 19 May 2024.

**Mar 2024 - May 2024: College Copilot Bootcamp (CABOOT)**. Completed six sessions, 20 March - 4 May 2024.

**Nov 2020 - Feb 2021: KSN-K Geography Preparation**. Participant in the 8 November 2020 - 7 February 2021 training program.

**Date not recorded: ML/AI Fundamentals: How Machine Learning Is Shaping the Oil & Gas Industry**, SPE Java Section.

## **ADDITIONAL RECOGNITION**

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**May 2024: 100 Design Achievement Badge**, Canva.

**2019: Try Out Akbar Winner**, Penerbit Erlangga. Score: 100, SMP/MTs category, Jakarta. SMP Angkasa Halim Perdanakusuma.