Aziz Bagas

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SUMMARY

First Class **Electrical & Electronics Engineering** graduate (Power Systems) from **Universiti Teknologi PETRONAS**, named **Best International Student 2026**. Eight months on a **29.99 MWac** utility-scale solar project, supporting electrical design, construction coordination and site inspections. Hands-on with **electric machines, drives, solar PV and automation**, from design and simulation to prototype testing, with an IEEE conference paper accepted. Seeking engineering roles in the energy and oil and gas industries.

EDUCATION

Bachelor of Electrical & Electronics Engineering with Honours – First Class Honours — Sept 2022 – Nov 2026
Universiti Teknologi PETRONAS, Malaysia | Major in Power Systems — *CGPA: **3.95** / 4.0*
Dean's List in all 10 academic semesters

AWARDS & PUBLICATION

- **Best International Student Award 2026** – Universiti Teknologi PETRONAS
- **President Award: Bronze** – Universiti Teknologi PETRONAS, 2026
- **Electrical & Electronics Engineering Final Year Project Award: Gold** – Universiti Teknologi PETRONAS, 2026
- **Gold Award** – Open International Innovation Competition (OpIIC 2026)
- **Silver Award** – 7th Digitalised International Invention, Innovation & Design Competition (DIIID 2026)
- **Finalist and Consolation Prize** – BEM Young Engineering Innovation Trophy, National Engineering Convention 2026
- **Paper Published** – 2026 IEEE 9th International Conference on Electrical, Electronics, and System Engineering (ICEESE)

WORK EXPERIENCE

Project Intern — Jan – Aug 2025
Atlantic Blue Sdn Bhd (Solarvest Group), Malaysia
Worked on **Summer Solar**, a **29.99 MWac** ground-mounted and floating solar project with an 11 kV MV collection system.

- Contributed to **design and layout**, including PV layout, cable routing, cable schedules and equipment placement.
- **Coordinated** design, client and contractor teams to support construction and installation.
- **Monitored progress** and compliance with **engineering specifications and HSE standards**.
- Performed **site and quality control inspections** of electrical and mechanical equipment and installations.
- Conducted **site assessments and surveys**, and prepared **technical documentation, reports and progress updates**.
- Attended **meetings with stakeholders**, including contractors and local authorities.

Co-Founder · Operations & Finance Lead (part-time) — Jan – Aug 2026
TEKA KAYA – Food & Dessert Micro Business, Malaysia

- Co-founded a campus food business alongside a full-time degree, fulfilling **200+ orders**.
- Managed **operations, supplier purchasing and accounting**, reaching **breakeven in two working days** and growing revenue by about **10% per week**.

PROJECTS

Full write-ups, drawings and results for each project are in the Projects section of this portfolio.

- **Linear Electromagnetic Propulsion System for Smart Compounds** (Final Year Project, Gold Award) – Designed, simulated in ANSYS Maxwell and built a linear induction motor for a 200 kg logistics shuttle.
- **15.7 MWp Floating Solar PV Proposal for UTP** (Student Industrial Project) – Designed a floating solar system across 8 campus lakes, projected to generate 24.3 GWh/year.
- **3-Phase Induction Motor Overhaul** (Team Lead) – Rewound and restored a stalled 0.75 kW motor to 1495 RPM, nearly doubling its insulation resistance.
- **EZPark Autonomous Parking Vehicle** (Project Leader) – Led a 4-person team and built the Node-RED and MQTT dashboard for live monitoring and control.
- **Smart Tilting and Solar Panel Cleaner** (Project Leader) – Led a 7-member multidisciplinary team to build an automated tilting and cleaning prototype for RM290.

SKILLS

Power Systems: Electric Motors, Generators, Transformers, Inverters, Power Electronics, Utility-Scale Solar PV, Cable Sizing, Earthing and Lightning Protection, Single-Line Diagrams, Protection and Coordination, Load Flow, Short Circuit Analysis
Software: MATLAB / Simulink, AutoCAD, PVsyst, PowerWorld, ANSYS Maxwell, PSpice, LTspice, Multisim, Microsoft Office
Programming & Data: Python, C, C++, Arduino, ESP32, MQTT, Node-RED; Data Analysis, Machine Learning, Artificial Neural Networks
Site & Project: Site Inspections, Quality Control, HSE Compliance, Stakeholder Coordination, Technical Documentation
Languages: English (Fluent), Portuguese (Native)

CERTIFICATIONS

- **Maintenance and Control of Electric Motors** – Alison
- **Diploma in Solar Photovoltaics: Principles, Technologies & Materials** – Alison
- **Machine Learning Professional** – Altair University
- **Basic Electronic and Home Automation** – ABOVE

LEADERSHIP & ACTIVITIES

- **Project Director, EcoWave: Green Clean for a Sustainable Life** – Led a community beach clean-up with industry, school and council partners, collecting 298 kg of waste. 5th place, Best MPU4 Project.
- **Committee (Public Relations), Malaysia Board of Technologists UTP Student Chapter** – Feb 2024 – Sept 2025.
- **Event committees** – International Sports Carnival 2024, MBOT Power BI Workshop and PETROBOTS Maker Fair 2026.