

# MUNACHIMSO BEJOY HENRY

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## EDUCATION

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### Covenant University

B.Eng. in Electrical and Electronics Engineering

Ogun, Nigeria

Sept 2023 – Aug 2028

Relevant coursework: Circuit Theory, Signals & Systems, Embedded Systems, Digital Electronics, Engineering Statics.

Honors: Silver Medalist, National Physics Olympiad · SAT 1500 (Math 800, Verbal 700).

## TECHNICAL SKILLS

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- Programming & Tools: C/C++, Arduino IDE, MATLAB/Simulink, Python (data visualization), Multisim, PSpice.
- Hardware: Arduino, STM32, HC-05 Bluetooth, DHT11, TFT LCD, sensors (ultrasonic, flame, IR), SG90 Servo.
- Electronics: Circuit design, prototyping, voltage regulation, power electronics basics.
- PCB Design: KiCad (beginner, designing first prototype PCB).

## PROJECTS

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### [AtmosLog](#) – Environmental Data Logger (2025)

- Built a portable system integrating DHT11, HC-SR04 ultrasonic sensor, TFT LCD, and SD card module.
- Logged temperature & humidity to SD card, displayed on TFT, and streamed via Bluetooth.
- Developed a Python-based live graphing system for real-time monitoring.
- Submitted prototype for IEEE/International Conference on Applied Electronics.

### [ATLAS](#) – Laser Security System (2025)

- Designed a system using laser diode, photoresistors, IR Remote and sensor, LCD screen and servo.
- Laser was configured to align with the photoresistor set to appropriate threshold. Passing of an obstacle breaks the link triggering the security alert system.
- IR Remote controlled override state of entire system.

### [PyroSafe Monitoring System](#) – Fire Detection (2024)

- Integrated flame sensor, buzzer, and LEDs with HC-05 Bluetooth module.
- Real-time fire alerts transmitted to paired devices; stable-state feedback when safe.
- Applied voltage divider to protect module from 5V logic, ensuring long-term safety.

Additional Projects: [Auto Waste Bin](#) · [Smart Toll Gate](#).

## RESEARCH SUBMISSIONS

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- M. Henry, [AtmosLog: A Low-Cost, Portable Environmental Monitoring System with Real-Time Data Logging and Wireless Communication](#). - submitted to the International Conference on Applied Electronics (2025).

## CERTIFICATIONS

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KiCad Like a Pro: PCB Design – Udemy (Issued Aug 2025)  
Circuit Simulation – MathWorks (Issued Aug 2025)  
Cisco Certified Network Associate (CCNA) – Cisco (Issued Jul 2025)

Autodesk Certified Professional: AutoCAD – Autodesk (Issued Jun 2025, Expires 2030)

Computer-Aided Design & Manufacture with AutoCAD & Fusion 360 – Autodesk (Issued Jun 2030, Expires 2030)

## TEACHING EXPERIENCE

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Engineering Tutorial Channel	Online
- Creator of a YouTube channel focused on freshman engineering courses, producing tutorials that simplify complex concepts for first year students	Aug 2025 - Present
Peer Tutorials	Ogun, Nigeria
- Led tutorial classes for course mates in core engineering subjects, reinforcing understanding through problem-solving and applied examples	Jan 2024 - Present
Private Summer Tutor	Online
- Taught high school students Mathematics, Physics and Chemistry, improving their academic performance and preparing them for standardized exams	Jul 2023 - Present
Community Outreach Teacher	Abuja, Nigeria
- Volunteered to teach Mathematics, English, and Science to neighborhood children. Progressed from assistant to class teacher, taking responsibility for curriculum planning, lesson delivery and student engagement.	Jan 2021 – Jul 2023

## LEADERSHIP & MEMBERSHIPS

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- IEEE Student Member (2024–present) – Member, IEEE Sensors Council.
- Google Developer Student Club (2024–present).
- Summer Science Tutoring Program Lead (2023-)

## EXTRAS

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- Strong communication, problem-solving, and adaptability skills.
- Interested in semiconductors, embedded systems, and applied electronics.