HEMABALAN J

B.E. Electrical & Electronics Engineering | Transformer Testing Engineer — Intern



CONTACT

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TECHNICAL SKILLS

- Transformer Testing (IS/IEC)
- Predictive Maintenance (AI/ML)
- PLC Programming
- Embedded and IoT (Arduino, RPi)
- MATLAB & Simulink

PROGRAMMING SKILLS

- Python (Data Science)
- Basics of C++ Programming
- Basics of C Programming

CERTIFICATIONS

- Minor degree in EV Technology with CGPA 7.83
- NPTEL
  1. Python for Data Science (IIT MADRAS)
  2. Renewable Energy Engineering: Solar, Wind And Biomass Energy Systems (IIT MADRAS)
- MATLAB OnRamp & Simulink OnRamp
- Business English Certification from Cambridge BEC

LANGUAGES

Tamil
English

PROFESSIONAL SUMMARY

Final-year EEE graduate with 6 months of hands-on experience as a **Transformer Testing Engineer** at Magnetic & Controls. Skilled in transformer testing, fault diagnosis. Seeking a challenging role in core electrical & electronics engineering where I can apply my technical expertise to design, test, and optimize real-world systems. Looking to apply this experience in a core electrical role where attention to detail, practical skills, and a willingness to learn can contribute meaningfully to the team and the work.

WORK EXPERIENCE

Transformer Testing Engineer — Intern | **Magnetic & Controls Pvt. Ltd., Coimbatore** | *Dec 2025 – May 2026*

- Perform testing of transformer as per IS/IEC standards & type tests (turns ratio, insulation resistance, winding resistance, no-load/full-load losses).
- Conduct high-voltage withstand (HV) tests; analyse test data to detect insulation degradation and winding faults.
- Supported quality assurance for dispatch clearance.
- Gained exposure in core assembly, coil winding, and end-to-end manufacturing workflow.

EDUCATION

B.E. — Electrical & Electronics Engineering
Sri Ramakrishna Institute of Technology, Coimbatore | 2022–2026 | CGPA: 8.3
Specialization: EV Technology — 6 Courses, 18 Credits, CGPA 7.83

Higher Secondary (HSC)
Kamaraj Matriculation HSS, Chidambaram | 2021–2022 | 73.17%

Secondary (SSLC)
Kamaraj Matriculation School, Chidambaram | 2019–2020 | 70.2%

PROJECTS

Powered Legal Assistant — *Startup Project | Wadhwani Ignite Bootcamp 2026*

- Selected in Top 500 at Niral Thiruvizha 3.0, Wadhwani Foundation — Coimbatore Cohort.
- Built an AI chatbot providing free legal guidance in Tamil, Hindi, Telugu & 6+ regional languages via WhatsApp/mobile.
- Covers 9 legal categories including labor, land rights, consumer protection, and family law.

AI-Based Transformer Predictive Maintenance System — *Final Year Project | 2025–2026*

- IoT-enabled real-time monitoring of temperature, voltage, and load current on distribution transformers.
- ML anomaly detection (Isolation Forest) with threshold alerts to predict incipient faults before failure.
- Web dashboard for live monitoring, fault alerting, and maintenance scheduling.

Voice-Controlled Obstacle Avoidance Robot — *Academic Project | 2025*

- Integrated voice command recognition with ultrasonic sensor and RPi pico for obstacle avoidance in autonomous robotic control.

ACHIEVEMENTS

- Top 500 — Niral Thiruvizha 3.0, Wadhwani Foundation (ElectroSpark AI Legal Assistant startup)
- 1st Prize — ROBO EXPO (Line Following Robot), SRIT Tech Fest
- Autoclicker Award — RIVALS 2025 (Vehicle Handling), Karpagam Institute of Technology