

RAVI VERMA

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GitHub: <https://github.com/Ravi21181>

Portfolio : https://ravi21181.github.io/MY_PORTFOLIO/

SUMMARY

A passionate and driven engineering professional with a strong foundation in Electrical Engineering. I have experience in hybrid Electric Vehicle, MATLAB Simulink, AI, Python Programming. I am eager to contribute to dynamic teams, learn continuously, and grow into a professional who can bridge technology with real-world applications.

SKILL

TECHNICAL: AI, Electric Vehicle, Circuit design, Python programming, Cyber Security, MATLAB Simulink

POWER SKILLS: Critical Thinking, Creative, Collaborative, Problem Solving, Project Management

INTERNSHIP

Hybrid Electric Vehicle | Acmegrade (Virtual):

FEB 2025

- Understand the Fundamentals of HEVs
- Understand powertrain components: engine, electric motor, generator, battery, inverter, and control
- Identify different HEV configurations: series, parallel, and series-parallel.
- Develop simulation models for performance, energy efficiency, and fuel consumption.
- Analyze battery performance, SoC (State of Charge), and thermal management.

Artificial Intelligence and Data Analytics | AICTE (Virtual)

- Completed a 4-week internship under the Skills4Future program.
- Gained hands-on experience in Artificial Intelligence, Data Analytics, and sustainable (green) technology applications.
- Worked on analyzing datasets and applying AI techniques to promote green and sustainable solutions.

Robotics & Controls Job Simulation | Johnson and Johnson, (Virtual):

JULY 2025

- Debug and tune code controlling a robotic surgical arm's actuators and sensors, focusing on precision and latency.
- Use Python plus libraries (e.g. NumPy, Matplotlib) to model and test control behavior across various scenarios and drive improvements
- Practice real-world issues like lag, jitter, or overshoot in robotic commands.

PROJECTS

TRANSMISSION LINE FAULT DETECTION:

Oct' 24 - Dec' 24

- Designed and implemented a system to continuously monitor transmission lines using advanced sensors for detecting abnormal conditions.
- Developed fault classification algorithms to identify issues such as short circuits and line-to-ground faults.
- Integrated automated isolation mechanisms to minimize damage and downtime by isolating affected sections.
- The system generates reports for maintenance teams, helping improve grid reliability and prevent future faults.

WATER LEVEL INDICATOR AND AUTOMATIC CONTROL SYSTEM:

Sep' 23 - Nov' 23

- Designed and developed a system to monitor and manage water levels in tanks using sensors and automated controls.
- Implemented sensors to detect real-time water levels and indicators to display status effectively.
- Developed an automated control mechanism to operate pumps, preventing overflows and water shortages.
- Optimized the system for efficient water usage and enhanced safety. Contributed to resource conservation and operational reliability through automation.

CERTIFICATIONS

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| • HYBRID ELECTRIC VEHICLE ACMEGRADE, (Virtual) | <i>FEB 2025</i> |
| • ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS EDUNET FOUNDATION (Virtual) | <i>SEP 2025</i> |
| • ROBOTICS AND CONTROL JOB SIMULATION JOHNSON & JOHNSON (Virtual) | <i>JULY 2025</i> |

EDUCATION

Kashi Institute Of Technology, Varanasi, India	B.Tech in Electrical and Electronics Engineering	2022 -2026
Dalimss Sunbeam, Rohania, Varanasi, India	Senior Secondary Education	2021 - 2022
Kendriya Vidyalaya, Meerut Cantt, Meerut, India	Secondary Education	2019 - 2020

