

SANDHIYA T

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Education

Bachelor of Engineering – Electrical and Electronics Engineering	2022 – Present
<i>Easwari Engineering College, Ramapuram, Chennai</i>	CGPA: 8.26 <i>Honors: Renewable Energy Systems</i>
Higher Secondary Certificate (Class XII)	2021 – 2022
<i>Barathi Matriculation Higher Secondary School, Chennai</i>	76.5%
Secondary School Certificate (Class X)	2019 – 2020
<i>Barathi Matriculation Higher Secondary School, Chennai</i>	88.6%

Experience

Intern – Electrical Engineering	2024
<i>Larsen & Toubro</i>	15 th feb to 4 th march
- Analyzed power distribution networks and substation operations, identifying key performance metrics to support system reliability and uptime. - Collaborated with senior engineers to review electrical layouts, ensuring compliance with safety standards during transformer and switchgear installations.	

Projects

11-Level Switched Self-Balanced Capacitance-Based Inverter with 5x Voltage Gain
- Designed and prototyped an 11-level switched, self-balanced, capacitance-based inverter achieving 5x voltage gain. - Validated circuit design and optimized power efficiency through comprehensive MATLAB/Simulink performance simulations.
Transistor-Based Inverter for Electric Vehicles
Developed a transistor-based inverter to efficiently convert DC battery power to AC for motor drive applications in EVs.
Dual-Axis Solar Tracking System
- Engineered a dual-axis solar tracking system using LDRs and Arduino to maximize solar energy capture. - Automated panel orientation via servo motors, improving energy yield compared to fixed-panel installations.

Skills

Simulation & Tools:	MATLAB/Simulink, AutoCAD, MS Office
Electrical:	Power Electronics, Electrical Machines, HVAC Basics, Circuit Design
Embedded & IoT:	Arduino, Embedded Systems, IoT-based Applications
Programming:	C ,python
Other:	Soldering, PCB Design, Electrical Equipment Testing

Certifications

- Operation and Planning of Power Distribution Systems – NPTEL
- Smart Grid: Basics to Advanced Technologies – NPTEL
- Electronic System Design: Hands-On Circuits and PCB Design with CAD Software – NPTEL
- Wind Energy – NPTEL