Atul Tiwari

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EDUCATION

Degree/Certificate	Institute/Board	Year
B.Tech Electrical and Electronics	Birla Institute of Technology, Mesra	2022-Present
Higher Secondary Certificate	Central Academy, Bhilwara	2021
Senior Secondary Certificate	Central Academy, Bhilwara	2019

TECHNICAL SKILLS

Hardware Description Languages: Verilog HDL, VHDL.
Programming languages: C, C++, Embedded C, Python.
Software Tools: Vivado, NI Multisim, HSPICE,MATLAB, Altium Designer, Eagle, Git, Simulink.

WORK EXPERIENCE

Intern
Suavy Technologies *September 2024 - Present*

- Led the project from conceptualization to fabrication of a 2kW single-phase inverter. Successfully built and validated the prototype under various load conditions.
- Worked in a team of 5 to design and develop a battery charger circuit using a forward converter topology

Intern
Team Srijan *January 2023 - Present*

* Designed and Fabricated Low Voltage system for EV which included rule complient circuits like RTDS,TSAL,interlocks,etc..
* Participated with a team of 16 in Pi-EV competion and secured 2nd worldwide in FMEA and 5th overall.
* Worked on preparing Documents like FMEA , Procurement Report , CRMR,Team management report and much more documents for big competeions like Formula Bharat24,25 , FSG25 Tesla sponsersip.

PROJECTS

Inverter | *MATLAB, PCB Design and Fabrication,* 🌐 *September 2024 - Present*

· **Designed** and **tested** a high-precision SPWM generation board using the EG8010 IC, and precision feedback control to achieve less than 3% Total Harmonic Distortion (THD).
· add here .

Speed Synchronisation of 2 motors (EEESoc) | *Arduino MEGA, Power management* 🌐 *December 2023*

· Developed a system for speed synchronization of two DC motors using Arduino and the PID control algorithm, with speed feedback from rotary encoders
· Ensured precise motor speed control and coordination, demonstrating expertise in control systems and embedded programming.

Obstacle-avoiding robot | *Arduino UNO, Arduino IDE* 🌐 *August 2023*

· Developed an **Obstacle Avoiding Bot** using **Arduino, HC-SR04 Ultrasonic Sensor, and L298N Motor driver**, successfully programmed to navigate around obstacles utilizing echolocation principles to sense its environment.
· Acquired insights into **echolocation**, **hardware development challenges**, and **patience**, while developing technical skills in **Arduino programming**, **sensor integration**, and **motor control**.

ACHIEVEMENTS

* **Led** a team of 17 students which participated in Pi-EV Competition securing 5th Position Overall
* **Secured sponsorship** of 23 BQ-79616 chips along with 2 Evaluation module by participating in Tesla Sponsorship by FB Germany 2025.
* **Co-led** the design and testing of a **football-shooting mechanism** for BIT MESRA's **DD Robocon** 2024 team.

POSITION OF RESPONSIBILITY

* **Lead Electrical Engineer** at **Team Srijan Electric** at BIT Mesra.
* **Tresurer and Tech Coordinator (Core)** at **Electrical and Electronics Engineering Society** at BIT Mesra.