PRIYANSHU YADAV

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EDUCATION

Ajay Kumar Garg Engineering College **Ghaziabad, IN**
Bachelor of Technology - Electronics and Communication Engineering 2023-2027

LEADERSHIP & EXPERIENCE

Phoenix — Ghaziabad, IN *Electronics Domain, Member* March 2025 – Present

- Participated in **5+ inter-college bot racing competitions**, contributing to the development of high-speed RC bots with improved traction, power efficiency, and control precision.
- Conducted **3+ hands-on robotics workshops**, training over **80 students** on topics like motor driver interfacing, Bluetooth communication, and Arduino-based bot development.
- Led the electronics subsystem **for 4 project teams**, designing effective PCB layouts and streamlined wiring schemes that **reduced system errors by 40%** and **increased response efficiency by 25%.**

Society of Automative Engineers — SAE **Ghaziabad, IN** *Electronics Domain, Member* December 2024 - Present

- Spearheaded integration of advanced driver interface systems in an **IC Formula Student car,** including digital dashboards, pedal shifters, kill switches, and sensor-actuator wiring; collaborated with a **30-member** multidisciplinary team to ensure seamless electronics–mechanical coordination.
- Facilitated hands-on training sessions for **20+ junior SAE members**, focusing on vehicle wiring techniques, connector protocols, and electronic control systems; enhanced dashboard display speed and **improved sensor data responsiveness by 40%.**

TECHNICAL SKILLS

Languages: Python, C, C++, Python, HTML/CSS, JavaScript, Embedded C
Technologies: Microcontrollers/Microprocessor, Motor Drivers, Communication Modules, Sensors **Tools:**
VS Code, SolidWorks, Eagle, MATLAB, Arduino IDE

CERTIFICATIONS

• Diploma in Computer Application **– NIELIT Certified Institute, 2023**

- Completed 90+ hours of training **based on the CCC syllabus covering computer fundamentals, MS Office tools, internet operations, and email communication.**

- Practiced over 200+ accounting entries and data records using Tally ERP 9 **for real-world scenarios such as invoice generation and ledger maintenance.**

- Enhanced documentation accuracy by 30% in academic projects **through structured use of Excel, Word, and data templates.**

- Acquired hands-on experience in file systems, database navigation, and digital accounting workflows relevant to industry data entry roles.

HARDWARE PROJECTS

BluCarX – ESP32-Based RC Racing Bot May **2025**

- Developed **BluCarX**, a Bluetooth-controlled RC car using **ESP32** and **L298N motor driver**, powered by a **12V 2200mAh Li-ion battery**, delivering **up to 2.5 kg-cm torque** per motor.
- Controlled via a custom-built Android app with a **15-meter Bluetooth range**, achieving real-time response within **150 ms** latency.
- Designed for competitive obstacle-based racing; ensured **95% control reliability** and optimized power distribution to improve race maneuverability by **30%**.

TriBotX – Arduino-Based 3WD RC Vehicle April **2025**

- Built a **3-wheel drive RC car** using **Arduino Uno**, **L293D motor driver**, and **HC-05 Bluetooth module**, achieving real-time control with a latency of under **200 ms**.
- Enabled mobile-based operation with a custom UI, covering a **10-meter Bluetooth range** and achieving speeds up to **1.2 m/s**.
- Refined PWM control logic to achieve a **30% smoother turning radius** and **greater power efficiency** during manoeuvring.

ACHIEVEMENTS & LEADERSHIP

Technical Workshop Facilitator & Competitive Coder

- Contributed to the development of a **Formula Student IC car** under SAE, designing and integrating key electronic subsystems including **digital dashboard, pedal shifters, and kill switches** with full vehicle wiring.
- Secured **top 3 positions** in **multiple RC bot races**, showcasing expertise in high-speed control systems and embedded hardware design.
- Conducted a **campus-wide IoT workshop** under Phoenix Robotics Society, training over **50 students** in Arduino based automation and sensor communication.
- **Mentored 30+ juniors** in embedded systems and robotics, guiding them through hands-on projects involving motor drivers, Bluetooth modules, and PCB design.
- Collaborated with a **30+ member interdisciplinary team** in both SAE and Phoenix societies, ensuring efficient electronics–mechanical integration and system-level testing.