

Siddhi Tiwari

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EDUCATION

Ramaiah University Of Applied Sciences

- Bachelor of Technology - Electrical and Electronics ; GPA: 8.3

Karnataka, India

September 2023 - July 2027

Courses: Signals and Systems, Microprocessors and Microcontrollers, Measurement and Instrumentation, Electromagnetic Theory, Digital Logic Design, Linear Integrated Circuits, Electric Vehicles

SKILLS SUMMARY

- Languages:** Python, Java(basics), C, JavaScript(basics), HTML/CSS
- Tools:** VS Code, Google Colab, MATLAB, Simulink, Tinkercad, MultiSim
- Platforms:** MacOs, Windows, Arduino, Raspberry
- Soft Skills:** Leadership, Critical Thinking, Adaptability, Time Management, Teamwork

PROJECTS

- Smart Health Monitoring System (Ongoing)** Developed a microcontroller-based system using Esp32 S3 to monitor vital parameters such as pulse, SpO2, air quality, fall detection and temperature. Integrated sensors with efficient power consumption and secure access using a fingerprint sensor.
- E-Commerce Cart System with a secure login feature that uses password validation(C Programming) (2025)** A console-based shopping app with password-protected access, built using C. Features include: User authentication with strong password validation, Product management (add/view items), Clean, interactive menus with colors and loading animations, Execution of standalone.exe with Windows API for an app-like experience.
- MindJumper (2025)** Built a web-based interactive experience where users explore fictional parallel universes based on emotions. Integrated mood-based animations, soundscapes, and dynamic quiz flow. Focused on frontend development (using javascript, html and css), emotional mapping, and immersive design.
- Smart Attendance System using Raspberry Pi (2025)** Designed a face recognition and biometric attendance system using Raspberry Pi + sensors for educational environments.
- Home Automation System (2024)** Developed a Bluetooth-based home automation system to remotely control lights and appliances using the smartphone (app). Used Arduino Uno + sensors and app-based commands for switching with real-time feedback. Emphasized energy efficiency, safety, and ease of use for basic smart home control.
- Smart Traffic Management System (2024)** Designed a Smart Traffic Management System using Arduino and IR sensors to detect vehicle density and dynamically control signal timing. Implemented emergency vehicle prioritization and basic pedestrian crosswalk logic. Optimized traffic flow simulation using LEDs, buzzer alerts, and real-time sensor data. Focused on modular hardware setup and scalable design for future smart city applications.

CERTIFICATIONS AND TRAININGS

- CMOS Digital VLSI Design:** IIT Roorkee (NPTEL)
- Digital Design with Verilog:** IIT Guwahati (NPTEL)
- Faculty Development Program (FDP) on FPGA:** Attended at M.S.Ramaiah University Of Applied Sciences

RELEVANT COURSEWORK

- Digital Electronics (College Curriculum)
- Embedded System Design (Relevant to Arduino Projects and NPTEL Courses)
- Microcontrollers and Applications (Worked with Arduino and Bluetooth Modules)
- JavaScript/HTML/CSS (Relevant to MindJumper)
- Wireless Communication (Relevant to Home Automation Project)

EXTRACURRICULAR AND VOLUNTEERING

- Menstrual Hygiene Awareness:** Conducted webinars to educate and spread awareness.
- French Language Proficiency:** Basic proficiency in French (A1 Level).
- Community Service:** Participated in community service programs and awareness campaigns.