

PROFESSIONAL SUMMARY

B.Tech Electronics & Communication Engineering student with project-based experience in embedded systems and IoT using ESP8266/ESP32. Proficient in microcontroller programming (AVR, PIC, ARM), PCB layout, and circuit simulation. Completed multiple automation and monitoring systems using Blynk, PLX-DAQ, and ThinkSpeak. Seeking an entry-level role in Embedded Systems or IoT development to apply hands-on skills in microcontroller integration and real-time data processing.

EDUCATION

- **B. Tech in Electronics & Communication Engineering**
Guru Jambheshwar University of Science & Technology (GJUS&T), Hisar
Expected Graduation: June 2026
 - **HS-CIT Certification in Information Technology**
Haryana Board of School Education & HKCL
Awarded July 2019 – Score: 91.15%
 - **Class 12th CBSE (April 2020 – March 2021)**
Montessori Convent Sr. Sec. School, Satnali
 - **Class 10th CBSE (April 2018 – March 2019)**
Montessori Convent Sr. Sec. School, Satnali
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TECHNICAL SKILLS

- **Microcontrollers:** Arduino UNO, ATmega8, ESP8266, ESP32, PIC16F877A, ARM Cortex-M4, ARM7
 - **Tools & IDEs:** MPLAB X, Arduino IDE, Proteus, LTSpice, ExpressPCB, Keil, PSpice, Visual Studio
 - **Programming:** C, Embedded C, Assembly, Verilog
 - **Concepts:** Embedded Systems, IoT, PCB Design, Circuit Design, Signal Processing, UART, SPI, I2C
 - **Soft Skills:** Technical presentation, Teamwork, Documentation
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PROJECTS

1. **Health Monitoring System using ESP32 & Firebase**
 - Engineered a real-time health monitoring prototype leveraging ESP32 & Firebase, which was tested with 5 beta users, while also decreasing data synchronisation latency to below 2 seconds.
2. **Home Automation System using ESP8266 & Blynk**
 - Modelled a Wi-Fi-based automation system to control 4 household appliances via smartphone using the Blynk app and ESP8266, improving user convenience by 90%.
3. **Smart Notice Board using ESP32 & Firebase**
 - Developed a cloud-enabled notice board with real-time updates accessible worldwide, enabling remote posting of notices
4. **Temperature Monitoring System with ThinkSpeak**
 - Built a real-time temperature logger using a DHT11 sensor and ThinkSpeak, updating data every 15 seconds for continuous monitoring.
5. **UART Communication Between Two ESP8266 Modules**
 - Implemented reliable UART communication with 9600 baud rates between 2 ESP8266 modules to exchange sensor data with <1% packet loss.
6. **Weather Monitoring with Arduino Uno**
 - Integrated 3 environmental sensors (DHT11, LDR, BMP180) to display temperature, light, and pressure with $\pm 2^{\circ}\text{C}$ accuracy.

7. **RFID-Based Automatic Attendance System with PLX-DAQ**
 - Automated attendance logging for **30+ users** using RFID and PLX-DAQ Excel, reducing manual effort by **90%**.
 8. **AC to DC Power Supply – PCB Design**
 - Designed and fabricated a PCB-based **220V AC to 5V DC converter**, achieving stable output with **<2% ripple**.
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PATENTS & RESEARCH PAPERS

- **Patent – Published in Indian Patent Journal (Issue 38/2025)**
 - **Title:** Semiconductor Integrated Circuit Layout Design Embodied in a Microcontroller-Based Embedded System for Home Automation.
 - **Inventors:** Vinit Sharma, Sahil Kumar, Dr Sardul Singh Dhayal, Mrs. Suman Dahiya
 - **Status:** Published in the Official Journal of The Patent Office, India
 - **Conference Paper (Accepted – Oct 2025)**
 - **Title:** IoT-Based Portable Health Monitoring System Using ESP32 with Firebase Integration
 - **Conference:** TEMSMET NIT DELHI, 8th October 2025 to 10th October 2025
 - **Status:** Accepted for presentation (Proceedings under process)
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TRAININGS

- **IoT Internship – Health Monitoring Project** – NIT Delhi | October 2025
Developed a real-time health monitoring system using ESP32 & Firebase, enabling 24x7 cloud-based logging of 3 vital parameters.
 - **Embedded System Design with ATmega8** – Sofkon India Pvt. Ltd, New Delhi | June – August 2024
Completed 40+ hours of ATmega8 training with Proteus & MPLAB X, designing 3+ embedded mini-projects.
 - **Embedded Systems Fundamentals** – Pantech AI, Online | March – April 2024
Interfaced PIC, ARM Cortex, and ESP8266 microcontrollers through 5+ practical circuits.
 - **Arduino and Arduino IDE** – Internshala | February – March 2024
Built 3+ real-time automation projects using Arduino UNO and sensors with >95% accuracy.
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CERTIFICATIONS

- HS-CIT (Haryana State Certificate in Information Technology)
 - Embedded System Design (Sofkon India Pvt. Ltd)
 - Embedded Systems (Pantech AI)
 - Arduino & Embedded Systems (Internshala)
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ACTIVITIES & WORKSHOPS

- **EV Workshop Participant** – Autokriti, NIT Kurukshetra, October 2025
 - **IoT Workshop Participant** – GJUS&T, March 2025
 - **Project Exhibition Participant** – GJUS&T, September 2024
 - **Anti-Ragging Awareness Event Volunteer** – GJUS&T, October 2024
 - **Founder & Manager** – Paper Curls (Educational Platform), July 2023
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LANGUAGES

- Hindi: Native
- English: Working Proficiency