Kritika Tripathi

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B.Tech - Electronics and Communication Engineering
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EDUCATION

- **Vellore Institute of Technology, Bhopal** *Oct 2021 - Present*
  Bachelor of Technology - Electronics and Communication Engineering CGPA: 8.82
- **Govt. MLB GHSS School Satna** *2021*
  Board of Secondary Education, MP Percentage: 96.8%
- **Govt. Higher Secondary School, Khutaha (Satna)** *2019*
  Board of Secondary Education, MP Percentage: 97.4%

EXPERIENCE

- **Velankani Electronics & Automotive Private Limited, Bengaluru** *June 24 - Nov 24*
  Hardware Design Intern - R&D
  - Worked on the development of 5-port and 8-port SOHO(Gigabit) Ethernet Switch projects. emphasizing high- speed data transmission and reliability
  - Used **Cadence** software for schematic design and MS Excel for Bill of Materials (BOM) preparation
  - Selected appropriate components, chips, and **ICs** for the hardware design
  - Conducted PCB testing, including visual inspection, voltage testing, and impedance testing, using a multimeter.

PROJECTS

- **Design of SOHO Networking (Gigabit) Switch** *June 24– Nov 24*
  - Technology: OrCAD/Cadence, Allegro, Lt-spice, Excel.
  - Designed a schematic for a SOHO 5-port and 8-port 1 Gbps Ethernet switch, enabling efficient data transfer in small networks.
  - Role: Incorporated Ethernet ports, Schematic Design, DRC check, Circuit analysis, Layout analysis, BOM generation, Netlist creation
  - Result: https://github.com/kritikagithubtripathi/SOHO_Gigabit_Network_Switch
- **Spy Robot** *Dec 22– Feb 23*
  - Technology: Arduino UNO, C, ESP32 cam module.
  - Engineered a spy robot with ESP32-CAM for real-time surveillance, controlled via a web interface. Implemented live streaming and navigation using motor drivers and sensors.
  - Role: Circuit Designing and Literature survey
  - Result: https://github.com/kritikagithubtripathi/SPY-Robot-
- **Design and Building of Smart Street Light System** *July 22 – Dec 22*
  - Technology: Tinker Cad, Arduino IDE, Arduino UNO, Sensors technology
  - Developed an Arduino system with IR and LDR sensors to adjust street light intensity: off during the day, 20% at night, and full intensity when objects are detected, reducing energy consumption by 85%
  - Role: Implementation of model
  - Result: https://github.com/kritikagithubtripathi/Smart-Street-Light-System

TECHNICAL SKILLS

- **Languages :** MATLAB, JAVA, C Programming
- **Tools & Software:** LT-spice, Tinkercad, OrCAD/Cadence, Allegro/Cadence, Excel, MATLAB, Visual Studio Code
- **Certifications:**
  - PCB Design in Cadence basic to Expert Level (Udemy)
  - MATLAB Onramp, MATLAB Simulink and MATLAB fundamentals (Math Works)
  - Applied Machine Learning in Python (Coursera)

ACHIEVEMENT

- Awarded a prestigious 100% scholarship for pursuing B. Tech through “STARS SCHEME” *Oct 2021*
- Selected for INSPIRE Award by virtue of performance within top 1% in the 12th Board exam *May 2021*

ADDITIONAL INFORMATION

- **Hobbies**: Listining Music, Photography
- **Languages**: English, Hindi