Makam Yugendra
Aspiring RTL Design Engineer
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Professional Summary:

- Electronics student in 2nd year B.Tech and diploma project team lead (1st prize winner). Built working prototypes with Arduino, sensors, and relays. Basics in C coding and now focusing on Verilog for VLSI careers
- **Aspiring RTL Design Engineer** with hands-on embedded systems experience from award-winning diploma leadership project (1st Prize: ₹7500).
- Currently mastering Digital Electronics concepts and Verilog.

Skills & Tools:

Category	Skills & Tools
Core Electronics	Digital Electronics (logic gates, Counters), Analog/Digital Communications, Sensor Interfacing (potentiometer, IR/proximity), Circuit Prototyping (relays, buzzers, LCD)
Programming	Basic Embedded C/Arduino, Verilog basics (learning)
Design Tools	KiCAD (PCB basics), AI tools (research + simulations), Microsoft Office (Excel, PowerPoint & Word), Tinkercad (designing & testing)
Projects Proven	98% curve detection accuracy, 35% energy savings, 95% drunk driving threshold detection
Leadership	Team Lead (3 members) Team Lead (7 members), 1st Prize Winner (₹7500 diploma tech fest)

Education:

Santhiram Engineering College, Nandyala, India — **2025- Present**
Bachelor of Technology in Electronics & Communication Engineering

Sree Vidyanikethan Engineering College, Tirupati, India — **2022-2025**
Diploma in Electronics & Communication Engineering

Mother Model English Medium School, Nandyala, India — **2022**
State Board of Secondary Education

Academic Projects:

Drunk-Driving Accident Prevention System with Potentiometer-Controlled Alcohol Simulation | Audrino Uno

- Designed and developed a **microcontroller-based** drunk-driving prevention prototype using a potentiometer to simulate variable alcohol levels, enabling precise threshold testing and engine ignition control.
- LCD display updated alcohol levels in **real-time (<100ms refresh)** with 3-color status indicators (green: safe, yellow: warning, red: cutoff) for clear driver feedback.
- Sequential warning system validated: buzzer activated at 30% threshold (3-sec alert), relay ignition lock at 40%—preventing "drunk start" in all simulated scenarios.

Automatic Street Light Control & Accident Prevention in Curves |IR Sensor

- Built an automatic street light system that activates lighting only upon vehicle movement to reduce energy wastage.
- Implemented IR sensor–based vehicle detection on road curves.
- Designed a warning mechanism where detection on one side triggers LED indication and buzzer alert on the opposite side.

Academic Activities:

AI Humanoid Robot Design Workshop Santhiram Engineering College, Nandyal | 2 Days

- Hands-on exposure to semi-humanoid robots with different Degrees of Freedom (DOF)
- Executed and debugged Python programs to control different level movements
- Observed human robot interaction, speech recognition behavior, and mobile-based control

Hobbies:

- Researching real-world problems solvable through electronics and technology.
- Designing and testing electronics prototypes using Tinkercad.
- Working on new tools which actually makes productive time.

Certifications

- Verilog HDL – Hands On
- Ethics in the Age of Generative AI

Achievements:

- Scored **89% overall** in Diploma Electronics and Communication Engineering
- **Team Leader & 1st Prize Winner (₹7500)**: Directed 7-member diploma team to develop curve accident prevention system and automatic streetlight conservation, earning top honors at college tech fest.
- Used AI tools to research + simulate drunk driving prevention prototype before building, verified relay logic and thresholds worked.