# G Yashwanth Kumar

(+91)7386002672 yashwanthyash0110@gmail.com G Yashwanth Kumar yashyash0110

## Education

**National Institute of Technology Surathkal** — **Mangalore, Karnataka**
*Bachelor of Technology in Electronics and Communication Engineering* | ***Current CGPA*** : *8.48* — *Dec. 2021 – 2025*
*Minor in Artificial Intelligence* | **Current CGPA** : *9.5* — *Oct. 2022 – 2025*

**Narayana Junior College, Poranki** — **Vijayawada,Andhra Pradesh**
*Higher Secondary School* | ***Obtained Marks*** : *976/1000* — *Jun. 2019 – May 2021*

**Narayana High School, Lawyer Pet** — **Ongole,Andhra Pradesh**
*Secondary School* | ***Obtained CGPA*** : *10/10* — *Jun. 2018 – Apr 2019*

## Course Work

**Major**: Digital Electronics, Analog Electronics, Microprocessors, Signals and Systems, Verilog and VHDL, Computer Organisation and Architecture
**Minor**: Data Structures and Algorithms, Artificial Intelligence

## Projects

For **Verilog** projects : The design was first checked at the architectural level and later implemented at the gate level in Logisim. On completing this verification, the Verilog codes were written.

**AMUSEMENT PARK WATER RIDES** — **Jan 2023 – Feb 2023**

- **Tools**:*Verilog, Logisim*
- There are two sequences, 101 and 111, that this FSM is detecting.
- If the tourist enters 101, the tourist shall be taken to the Deluxe ride; if 111 is entered, the classic ride will be opened for the tourist.
- Along with the rides, there's a special pattern in which water sprinklers surprise you.

**AQUA BOT** — **Feb 2023 – Mar 2023**

- **Tools**:*Logisim, Verilog*
- Automatically turns the pump on and off, showing the residents the percentage of water still left in the tank.
- There is also a "Tap" option, which will show water usage in the household.
- Whenever the water level is below 20 percent, the "Pump" will automatically turn on based on whether the water is coming from "Reservoir."
- Displays the "Percentage" of water still in the tank.

**SOLAR POWER TRACKING SYSTEM** — **Mar 2023 – Apr 2023**

- **Tools**:*Ardiuno Mega, Solar Panel, Light Sensors, Servo Motors*
- The primary operation of the system is to collect the solar power from the panel and store the power on the battery charge controllers and microcontroller.
- Rotating according to sun direction is a secondary operation of the system.
- When the sensor detects more intensity of light, then the microcontroller sends the signal to the motor to rotate the panel using a gear mechanism.

**AUTOMATED WINDOW CONTROL SYSTEM** — **Aug 2023 – Present**

- **Tools**:*Raspberry Pi, Temperature Sensor,...*
- Developing an innovative system that automates window operations based on real-time temperature data.
- This approach ensures optimal indoor conditions by seamlessly adapting window status to external temperature changes.
- By combining temperature data and automation, the system creates a harmonious transition between indoor and outdoor conditions, making spaces more comfortable.

## Technical Skills

**Languages**: Python, C/C++, Verilog, ARM7TDMI

**Developer Tools**: VS Code, Vivado, Logisim, LTSpice, KeilVision, Jupyter

**Libraries**: Pandas, NumPy, Matplotlib

**Operating Systems**: Windows

## Extracurricular Activities and Achivements

- Ranked 5586 in JEE Main and 12931 in JEE Adv.
- An active member of Music Club.