

# Gokul J

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## OBJECTIVE

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Aspiring Electronics and Communication Engineer with a strong foundation in Circuit design, Embedded systems, Signal Processing, Microcontroller programming and AI. Seeking opportunities to leverage technical and leadership skills in innovative projects.

## EDUCATION

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**Bachelor of Technology - Electronics And Communication Engineering** (Expected 2026)

Karunya Institute Of Technology And Sciences

*CGPA: 9.11*

**Higher Secondary School** (2020-2022)

Evangeline Matriculation Higher Secondary School

*Percentage: 92.33*

## SKILLS

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<b>Technical Skills:</b>	Circuit Design, PCB, Embedded System, Machine Learning, Deep Learning, Docker, Linux
<b>Software Tools:</b>	Matlab, Vivado, Keil uVision, Tina, Proteus, LTSpice, CADFeko
<b>Programming Languages:</b>	Python, C, C++, Embedded C
<b>Soft Skills:</b>	Public Speaking, Team Work, Leadership

## PROJECTS

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### Pedometer

- Built a tool to count the number of steps taken by athletes.
- **Tech Stack:** Arduino Nano, PCB board, ADXL 335 Accelerometer, LCD display, I2C communication module

### Gas Leakage Alarm

- Built a tool to detect gas leakage in households and alert the people.
- **Tech Stack:** NodeMCU, Buzzer, LCD Display, MQ2 Gas Sensor, IFTTT, Adafruit

### Automatic Fire Extinguisher

- Built a tool to extinguish fire automatically through the control of water pump.
- **Tech Stack:** LM 741 op amp, Thermistor, Transistor, potentiometer, Resistors, Water pump

### Voice Translation With Cloning

- Built a tool which can convert the spoken audio from other languages to English with user voice replication.
- **Tech Stack:** Python, OpenAI's Whisper Model, Gradio Interface

## Digital Tachometer

- Built a tool to count the number of rotations a motor or wheel makes and display the RPM value.
- **Tech Stack:** Embedded C, IR sensor, Arduino, Arduino IDE

## ZCZ Based CDMA System Simulation Over AWGN Channels

- Developed a Simulink model and Verilog code to transmit and receive data thorough ZCZ based CDMA.
- **Tech Stack:** Matlab Simulink, Verilog

## ACHIEVEMENTS

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- Secured Elite rank in Nptel Exam in the course, "Technical English for Engineers" (October'23)
- Received Academic Achiever's Award for Securing high SGPA in the ECE department during the third, fourth and fifth semesters.
- Secured Second place in TN Police Hackathon with a cash award of Rs.75000 (February'25)

## PARTICIPATIONS

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- Participated in Introduction to chip design Ecosystem Webinar (October'22)
- Participated in AR Filters Workshop (February'23)
- Participated in Artificial Intelligence Virtual program by Cognizant (June'23)
- Led a team of 6 and got selected in internal hackathon of SIH 2024
- Pariticipated in Anveshan student research convention 2025 in South Zone (February'25)

## COURSE COMPLETIONS

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- Technical English for Engineers by Nptel (October'23)
- Getting Started with AI on Jetson Nano by Nvidia DLI (January'24)
- Building Video AI Applications at the Edge on Jetson Nano by Nvidia DLI (January'24)
- Introduction to Machine Learning by Nptel (April'24)

## EXPERIENCE/INTERNSHIPS

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- **IOT Intern**, Techvolt Software, Coimbatore (June 2023)
  - Developed IoT applications using Arduino and Nodemcu
  - Worked on integrating sensors and actuators for smart home projects
- **AI Club Member**, Karunya Hacks (September 2023 - July 2024)
  - Participated in hackathons and coding challenges
  - Collaborated with team members on AI and ML projects
- **Intern**, 5BRD Sulur, Coimbatore (May 2024 - July 2024)
  - Done Reverse Engineering on PCBs of LRUs of Aircraft System
  - Presented a concept paper on Reverse Engineering of Radio Altimeter Indicator of Dornier Aircraft
- **Intern**, Samsung Prism (January 2025 - Present)
  - Working on a GenAI-based model to generate heatmaps of Wi-Fi/Zigbee signal strengths