

# John Babu Gandikota

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**Location:** Eluru

## Summary:

Recent Electronics and Communications Engineering graduate with expertise in C/C++ and embedded systems. Proficient in microcontroller programming, real-time operating systems. Strong academic performance and a project winner at the university level. Enthusiastic about emerging technologies and a sci-fi aficionado. Multilingual in Telugu, Hindi, and English.

## Education:

- **BTech in Electronics and Communications Engineering [2019-2023]**  
Acharya Nagarjuna University, Guntur, Andhra Pradesh CGPA-8.1
- **Intermediate [2017-2019]**  
Sri Chaitanya junior college CGPA-10.0
- **SSC[2016-2017]**  
Jai Akshara Sri Bharathi Public school CGPA-10.0

## Course and Certifications:

Pursuing Embedded Systems course in Vector India Hyderabad.

## Projects:

### Vector Projects:

#### 1. Multi Purpose E-card System using LPC2129.

The Multi-Purpose eCard System integrates EEPROM (AT24C256) for secure data storage, RFID reader for authentication, and RTC for validity checking. Stored data includes Aadhar, PAN, license, and voter ID, accessible only with the correct password. RFID authentication ensures card legitimacy, while real-time validity checking denies access to expired cards. Hardware components communicate seamlessly, employing SPI for EEPROM and UART for RFID. With encryption and strict access controls, the system guarantees confidentiality and integrity of stored data. This versatile solution caters to identity management needs, offering security, efficiency, and ease of use in accessing personal identification information.

#### 2. Arithmetic Calculator Project using 8051

Designed and implemented an Arithmetic Calculator utilizing the AT89C51 microcontroller. The project features a user-friendly interface with a 16x2 LCD display and keypad for basic arithmetic operations, including addition, subtraction, multiplication, and division. Leveraged efficient memory management for operand storage and incorporated real-time capabilities for instant calculation and display of results. The project showcases error-handling mechanisms to ensure accurate calculations and operates with low power consumption, making it suitable for educational purposes and as a practical learning tool for embedded systems development.

## Academic Project

### 3. Carrom Board Shaped Antenna Design Using Ansys HFSS Software:

Designed using ANSYS HFSS software, the Carrom Board Shaped Patch Antenna is tailored for K-band applications, exhibiting a gain of -13dB. Its unique rectangular design, reminiscent of a carrom board,

optimizes RF performance. Simulations ensured efficient radiation patterns and impedance matching. Compact yet powerful, the antenna's broadband capabilities enable seamless communication across K-band frequencies. Ideal for satellite links, radar, and wireless networks, it offers reliable connectivity in diverse environments. This project underscores expertise in RF antenna design, ANSYS simulation, and high frequency communication systems, positioning me as a skilled professional in RF engineering and telecommunications.

### **Internship:**

Home Automation Intern (Remote)

-Designed a Home Automation Project using Arduino, WIFI module and Blynk app. Simulated using Pcsimulator conducted by Emertxe Information Technologies .

### **Skills:**

- **Programming Languages:** C,C++,Embedded C, Data Structures,OOPS concept
- **Microcontrollers:** ATmega32, 8051,LPC2129
- **Operating Systems:**Linux,Windows
- **Communication Protocols:** UART, SPI, I2C ,CAN
- **Schematic Capture and Debugging:** Proteus, keil u vision,PSPICE
- **Version Control:**GitHub.

### **Certifications:**

- Introduction to Embedded Systems Software Development by University of COLORADO BOULDER by Coursera
- Linux : The Command Line Interface by Dartmouth College and Institute Mines-Telecom by coursera
- Wireless Communication for Everybody by YONSEI University by coursera

### **Achievements:**

-Secured first prize in University level Tech fest (ANUSODHANA) for the implementation of the project "Rain Protected Grain".

### **Hobbies:**

- Browsing about Latest technologies in internet.
- Interested to watch Sci-fi movies

### **Languages:**

Telugu, Hindi and English