

Balaji S

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[GitHub](#)

Jayanagar 4th Block, Bangalore- 560041

CAREER OBJECTIVE

Seeking an opportunity to join a dynamic team of engineers as an embedded engineer where I can use my knowledge in firmware programming, software debugging as well as hardware debugging. Main objective is to utilize my proven ability to develop innovative solutions for complex engineering challenges.

EDUCATION

	B. E in Electronics and Communication <ul style="list-style-type: none">• CGPA: 7.8	PMC College of Engineering Hour, Tamil Nadu, India	2019- 2023
	INTERMEDIATE(12th) <ul style="list-style-type: none">• CGPA: 6.1	GOVT Boys Higher Secondary School Bagalur, Tamil Nadu, India	2018-2019
	SSLC (X) <ul style="list-style-type: none">• CGPA: 8.4	GOVT Boys Higher Secondary School Bagalur, Tamil Nadu, India	2016-2017

PROFESSIONAL TRAINING

EMBEDDED SYSTEMS DEVELOPMENT

Vector India – Bengaluru | Duration: 6 Months (May 2024 – Present)

- Completed an intensive 6 months professional training mainly focused on C, C++, ARM. Developed a major project Vehicle Control System using CAN protocol and many mini projects.

PROJECTS

DASHBOARD IMPLEMENTATION USING CAN PROTOCOL

- Developed a real-time vehicle dashboard using two LPC2129 microcontrollers to simulate communication between ECUs via the CAN protocol.
- The system primarily displayed the status of headlights and turn indicators, along with key vehicle parameters such as battery percentage and engine temperature, measured using on board ADC.
- All data was shown on a 16 X 2 LCD, demonstrating efficient data transfer and integration between ECUs for vehicle status monitoring.

MINI PROJECTS

AUTOMATION LIGHTS USING SPI PROTOCOL

- PROJECT OVERVIEW: Developed an automatic street lighting system using SPI Protocol.
- HARDWARE SETUP: Used LPC2129 (Master) and 8051 with LDR sensor(Slave), Connected via SPI with MOSI, MISO, CLK, CS PINS Configured.
- SOFTWARE IMPLEMENTATION: Wrote Embedded C Handle SPI communication, enabling the master to read LDR sensor data and control street lights accordingly.
- FUNCTIONALITY: The master receives data from the LDR sensor via SPI, Processes it, And automatically turns streetlights ON in darkness and OFF in daylight.

VEHICLE CONTROL SYSTEM USING CAN PROTOCOL

- Utilizing two LPC2129 microcontrollers as ECUs to demonstrate communication via CAN.
- One ECU sends signals to control vehicle functions like headlights and indicators, while the other ECU displays the status by blinking LEDs, showcasing real-time control and communication between the units.

SMART HOME APPLIANCES USING LPC2129

- Using a mobile phone user can control the home appliances and it is connected with LPC2129 MC

TECHNICAL SKILLS

- **Languages** : C, C++, Embedded C
- **Data Structures & Algorithms:** Arrays, Linked lists
- **Controllers** : LPC2129 (ARM-7)
- **Protocols** : UART, SPI, I2C, CAN
- **Operating systems** : Linux, Windows
- **Compilers** : GCC (Ubuntu)

PERSONAL SKILLS

- Self motivation
- Communication skills
- Team work
- Adaptability

PERSONAL DETAILS

Date of Birth : 20th APR, 2002
Permanent Address: 2/47, Teachers Colony, Bagalur, Hosur, Tamil Nadu - 635124.
Present Address : Bengaluru.
Languages Known : Telugu, English, Tamil and Kannada.
Strengths : Dedicated, Hardworking.

DECLARATION

I here declare that all the details furnished above are true to the best of my knowledge and belief.

Balaji .S
SIGNATURE