Mohan Kumar L

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CAREER OBJECTIVE

Enthusiastic EEE student passionate about IoT and Embedded Systems. Enjoys solving problems, building smart agricultural projects, and learning new skills through teamwork and real-world engineering experiences.

EDUCATION

BE, Electrical and Electronics Engineering   2022 - 2026
Vidyavardhaka College Of Engineering

CGPA: 9.02/10

Senior Secondary (XII), Karantaka State Board   2021
Science

Sadvidya Composite Pu College

Percentage: 90.84%

Secondary (X), Karantaka State Board   2019
Govt Adarsha Vidyalaya Sosale

Percentage: 91.84%

TRAININGS / CERTIFICATIONS

C And Python Competitive Training   **Circuit Simulink On Ramp**
Mar 2025   May 2024

Vidyavardhaka College Of Engineering, Mysuru   Matlab, Virtual

CREAT-A-THON   **Leadership Skills Training**
Feb 2024   Dec 2023

Dayanand Sagar College Of Engineering, Bengaluru Vidyavardhaka College Of Engineering, Mysuru

Participated in 24 hour National Level Hardware Hackathon

Build Your Own Robot
Jun 2023 - Aug 2023

Vidyavardhaka College Of Engineering, Mysuru, Mysuru

PROJECTS

Automatic Irrigation System using ESP32 and IoT   **Audio Amplifier Circuit with PCB**
Feb 2024 - Apr 2025   Feb 2024 - Apr 2025

Built an IoT-based system to monitor soil moisture, temperature, and water level. Automated irrigation based on real-time sensor data. Enabled remote control and monitoring via IoT platform.

Developed an audio amplifier circuit that amplifies input signals up to 20 times with low noise interference. Designed and fabricated a custom PCB layout to ensure compact and efficient circuit assembly.

IoT-Based Smart Water Management System   **Opto-dielectric Properties of $Ce^{3+}:Si_3Al_2Si_3O_{12}$ Nanocomposites for Energy and Security Applications**
Mar 2025 - Apr 2025   Aug 2024 - Apr 2025

Implemented a smart water level monitoring system that uses an ultrasonic sensor and ESP32 to track water levels in real-time. Integrated with Blynk IoT, the system automatically controls a pump to prevent overflow or depletion, promoting efficient water usage.

Journal: Journal of Alloys & Compounds (Q1 Journal) Published research focusing on material science innovations targeting energy-efficient applications. Explored opto-dielectric properties of nanocomposites for multi-functional uses including lighting, security, and sensing technologies.

IoT-Based Battery Management System

Jul 2024 - Aug 2024

Created a real-time battery monitoring system that collects and displays voltage, current, and temperature data through a mobile app. The system uses ESP32 and Blynk IoT to help users monitor battery health and performance more effectively.

Remote-Controlled Agriculture Bot using ESP32

Mar 2025 - Present

Designed a robot with remote-controlled ploughing, seed sowing, and soil moisture monitoring. Automated key farming tasks to reduce manual labor and boost efficiency. Recognized for innovation in smart farming solutions.

Anti-Sleep Alarm System for Drivers

Jul 2023 - Aug 2023

Developed a driver safety system that monitors eye activity to detect drowsiness using an eye blink sensor. When signs of sleepiness are detected, the system alerts the driver through a buzzer, helping prevent accidents due to fatigue.

SKILLS

- Arduino
- Proteus Design Suite
- Embedded C
- ESP32
- Electrical Machines
- Circuit Design
- BMS modelling & simulation
- Problem Solving
- MATLAB
- PCB Design
- Internet of Things (IoT)
- C Programming
- Embedded Systems

EXTRA CURRICULAR ACTIVITIES

- Volunteer:
    1. 7-day NSS Camp , Ramanahalli -2024.
    2. National Level NSS Hackathon "Haxerve 2.0"-2025.
    3. 7-day "Faculty Development Program" - 2024 & 2025.
    4. State level Hackathon "Sustainable Solutions For Smart Campus"-2024
- Active Member in VVCE-BAJA (Electrical Powertrain group 2025)
- Active Member in IEEE PES and PELS Society (2024-2026)
- Mentor :
    1. 1.Embedded System Simulation Workshop VVCE (May 2024)
    2. 2.Basic Electrical Workshop for first year students (2024)
    3. 3.Handson Workshop on PCB design through Ki-kad (2023)
    4. 4.'Build Your Own Robot' Workshop (2024)

ADDITIONAL DETAILS

- Secured 1st Rank in 4th semester with a SGPA of 9.6.
- Secured 4th Rank in 3rd semester with an SGPA of 8.80.
- Won 1st Prize in the state-level project competition "Vriddheee"(Mini Project category).
- Awarded Best Student for Co-Curricular Activities, 2025.