

# PAVITHRA S

Electrical and Electronics Engineer

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## CAREER OBJECTIVE

To obtain a position as an engineer in a reputable organization, where I can continuously learn and utilize the opportunity to develop knowledge about new and emerging technologies, and support the company's goals through dedicated work.

## EDUCATION

### Bachelor of Engineering — Electrical and Electronics Engineering

Panimalar Engineering College, Chennai | CGPA: 8.3 (through 8th Semester)

### Higher Secondary Certificate (HSC)

NLC Girls Higher Secondary School | Percentage: 80%

2022

### Secondary School Leaving Certificate (SSLC)

NLC Girls Higher Secondary School | Percentage: 88%

2020

## INTERNSHIP

### In-Plant Trainee — NLC India Limited

Navratna — Government of India Enterprise

- Worked at NLC India Limited as a trainee and underwent In-Plant Training. Completed the In-Plant Training and gained exposure to industrial electrical systems, safety procedures, maintenance practices, technical documentation, and report preparation in a large-scale power generation environment.

## WORKSHOP

### Printed Circuit Board (PCB) Design — TVS Training and Services Ltd.

- Printed Circuit Board Design — Basic understanding of PCB design.

## ACADEMIC PROJECTS

### AI-Powered Non-Invasive Therapies for Autism and Stress Emotions

- Designed and developed an AI-powered system that detects autism-related stress and emotional states in real time using facial recognition along with physiological sensors such as GSR, temperature, and accelerometer for accurate monitoring.
- Built a hybrid, non-invasive therapy module that automatically triggers calming responses (like vibration-based feedback) during distress, ensuring continuous support even when facial data is unavailable.
- Integrated an IoT-based platform for secure data storage, real-time visualization, and long-term analysis of emotional patterns to improve therapy effectiveness and user well-being.

### RFID-Based Student Attendance System

- Developed an IoT-based ESP32-RFID student attendance system enabling automated, accurate, real-time attendance tracking. Integrated RFID tags and readers to uniquely identify students and update records instantly, providing fast and accurate automated attendance and reducing manual errors.

### Energy-Producing Roads

- Developed a prototype energy-producing road system using piezoelectric sensors to convert traffic pressure into electrical energy. When vehicles pass over the road, the mechanical stress generated by their weight is converted into electrical charge due to the piezoelectric effect, producing clean electricity from moving vehicles.

## TECHNICAL SKILLS

- Programming & Tools: Java, Python, SQL
- Engineering Software: MATLAB Onramp, Simulink Onramp
- Core Domains: PLC Fundamentals, Control Systems, Internet of Things (IoT), PCB Design

## CERTIFICATIONS & LANGUAGES

- Certifications: Java Programming | Python Programming | MATLAB Onramp | Simulink Onramp | Hindi Proficiency
- Languages Known: English, Tamil, Hindi