# Adhyan Pranil Agrawal

Graduate Electrical Engineer

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Dedicated and motivated Electrical Engineering graduate student with a strong foundation in assembly, installation, maintenance, testing & fault diagnosis of electrical systems and circuit design. Demonstrates a solid understanding of both theoretical principles and practical applications through academic coursework and hands-on projects. Skilled in using industry-standard tools and software for simulation and analysis. Possesses excellent problem-solving abilities, strong analytical skills, and effective communication capabilities. Eager to contribute to innovative projects and advance in the field of electrical engineering.

## Work Experience

### Trainee Engineer

Feb 2023 - Feb 2023

*Static Electricals* | *Pune, Maharashtra*

As a trainee engineer in a transformer manufacturing company should possess a strong foundation in electrical engineering, along with knowledge of transformer design, testing, and quality control. Proficiency in understanding of electrical circuits, adherence to safety regulations, and effective communication skills are also crucial for success in this role.

## Projects

### Interplay of Mechanical and Electrical Parameters in Design and Development of E-Vehicle

Apr 2023 - Apr 2024

An interesting project that blends technical concepts with creativity for sustainable transportation is designing and modelling an electric vehicle (EV). Typically, it entails the following:

● Powertrain Modelling: This is the process of putting the battery, electric motor, and power electronics of an electric vehicle into a mathematical model. The performance, range, and energy efficiency of the EV are predicted and simulated with the aid of this model.

● Vehicle Design: This concentrates on the aerodynamics, battery location, motor choice, and overall passenger and cargo space of the EV.

### Underground Cable Fault Detector

Jul 2022 - Dec 2022

Detecting fault source in Underground Cable is difficult and entire line is to be dug in order to check entire line and fix faults. So here we propose a cable fault detection over IOT that detects the exact fault position over IOT that makes repairing work very easy. The potential of your project is broken down as follows:

● Real-time Monitoring: By integrating IoT into your system, you can keep an eye on the health of your cables from a distance. Preventive maintenance and early identification of any problems are made possible by this, which lowers the possibility of unplanned outages.

● Increased Efficiency: You can drastically cut down on the amount of excavation space required for repair by precisely locating the fault. This results in cheaper prices and quicker repair times.

## Core Skills

Power System, MATLAB, AutoCAD, Circuit Design, Microsoft Office, Preventive Maintenance, Project Management, Load Calculation, Innovative, Communication Skills, Teamwork, Organizational Skills

## Education

### Dr. D. Y. Patil Institute of Technology, Pimpri, Pune

May 2020 - Jun 2024

**Bachelor of Engineering** Electrical Engineering
GPA 8.62 CGPA

### Zulal Bhilajirao Patil College

Mar 2019 - Apr 2020

**MSBSHSC** Class XII
GPA 70%

### North Point School

Mar 2017 - Apr 2018

**ICSE** Class X
GPA 73%

## Certificates

### Advance in UHV Transmission and Distribution

Oct 2023

*NPTEL Online Certification*

## Publications

### Research Paper Topic: Integrating Mechanical and Electrical Engineering in Electric Vehicle Design and Development

May 2024

*International Journal Of Multidisciplinary Research In Science, Engineering and Technology (IJMRSET)*

The design of an electric power train-based vehicle
was covered in this article, along with consideration for the battery pack, motor, and chassis choices. By outlining the main parts of an electric vehicle system, such as the control unit, power electronics, energy storage system (battery), and electric motor. These constituents provide the fundamental structure of the electric vehicle (EV), facilitating its propulsion, energy storage, and general functionality. A universal charging system that can safely and efficiently charge the majority of EVs in a variety of exterior conditions is necessary due to the rise in EV usage.