Yuvraj Singh

+91-7607398815 22ev3034@rgipt.ac.in Yuvraj Singh

SUMMARY

Pre-final year Electrical engineering (major E-Vehicle) student with experience in circuit design, simulation and testing. Proficient in MATLAB and Autocad. Highly motivated and result oriented with a strong foundation in electrical theory and circuit analysis. Eager to learn new skills.

EDUCATION

Rajiv Gandhi Institute of Petroleum Technology **2022 – 2026**
*(An **Institute of National Importance** along the lines of IITs)* *Amethi, Uttar Pradesh, India*

B. Tech in Electrical Engineering (Major : E -Vehicle)

The Jain World School **2020 – 2021**
CBSE Class 12th - **Percentage - 91.4%** *Kanpur, Uttar Pradesh, India*

The Jain World School **2018 – 2019**
CBSE Class 10th - **Percentage - 90.8%** *Kanpur, Uttar Pradesh, India*

PROJECTS

Design of DC-DC fast charger for Electric Vehicles **Sep, 2024 - Ongoing**

- Guide - Dr. Vijay Kumar Singh
- Developed comprehensive **simulation models** using MATLAB-Simulink to enhance power conversion efficiency, minimize switching losses, ensure voltage regulation and focusing on advanced **power electronics** topologies and control strategies.

Case study/review paper on charging stations **May, 2024**

- It focuses on analyzing the EV sector in India, including market study and explores the demand for EV charging stations and addresses key challenges like infrastructure, battery costs, and location selection to promote EV adoption.

Advanced control techniques for efficient power converter **Dec, 2023**

- Guide - Dr. Vijay Kumar Singh
- Implemented advanced control strategies for high-efficiency **power converters**, focusing on control algorithms. Optimized pulse-width modulation **(PWM)** techniques to minimize switching losses and improve overall system performance.
- Achieved significant improvements in converter efficiency, transient response, and steady-state accuracy across various load conditions.

VOLUNTEER EXPERIENCE

IEEE Student Branch, RGIPT
Technical Team Executive

Cisco ThingQbator, RGIPT
Operations Team Head

The Jain World School
Cultural Secretary

TECHNICAL SKILLS

Languages:
C, Python

Technologies/Frameworks:
AutoCad, SimuLink, MATLAB, HTML, CSS, Dspace

CERTIFICATIONS

- ISRO Cyberspace Competition
- Embedded Systems

COURSEWORK / SKILLS

- Control Systems
- Power Electronics
- Electrical Machines
- Network Analysis
- Analog and Digital circuit systems
- Sensors and Actuators for Electric Vehicles