Pratyansh Sai Shaw

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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)

Delhi Public School **2021 – 2022**
CBSE Class 12th - **Percentage - 89.2%** *Meerut, Uttar Pradesh, India*

Delhi Public School **2019 – 2020**
CBSE Class 10th - **Percentage - 95.2%** *Meerut, Uttar Pradesh, India*

EXPERIENCE

Solar Complete Firm **Jan, 2024 – April, 2024**
Project Intern

- Gained proficiency in **PVsyst** software for photovoltaic system design and simulation. Mastered importing **ASCII** meteorological data and analyzing solar elevation angles and irradiance patterns. Studied various weather parameters impacting solar performance. Explored diverse solar panel technologies and inverter types.
- Developed skills in optimizing PV system configurations and data-driven decision-making for optimal solar installations.

PROJECTS

Development of DC to DC fast charger for Electric Vehicles **September, 2024 - Ongoing**

- Guide - Dr. Vijay Kumar Singh
- Created comprehensive **simulation models** using MATLAB-Simulink to optimize power conversion efficiency, minimize switching losses, ensure seamless voltage regulation and focusing on advanced **power electronics** topologies and control strategies.
- Currently **transitioning** from simulation to hardware prototyping, implementing wide-bandgap **semiconductors (SiC/GaN)** and advanced thermal management techniques to achieve faster charging capabilities.

Development of Tactile Sensor Prototype and Electrochromic Device **August, 2023 - Dec, 2023**

- Guide - Dr. Vipin Amoli
- Engineered a flexible triboelectric tactile sensor leveraging **piezoelectric principles**, utilized **fabrication techniques** to create a highly sensitive and durable sensor array with optimized electrode configurations. Implemented charge separation mechanisms to enhance the **triboelectric effect**, resulting in improved voltage generation capabilities.
- Successfully made a flexible triboelectric **tactile sensor** capable of generating up to **12 volts**, demonstrating high sensitivity and potential for energy harvesting in wearable electronics applications.

VOLUNTEER EXPERIENCE

Department of Undergraduate Committee (DUGC), RGIPT **Dec, 2023 - Ongoing**
Student Representative

Training and Placement Cell, RGIPT **August, 2023 - March, 2024**
Student Member

IEEE Student Branch, RGIPT
Audit and Reporting Coordinator

TECHNICAL SKILLS

Languages:
C, C++, Python
Technologies/Frameworks:
Linux, GitHub, MATLAB, Simulink, AutoCad, Dspace

Achievements

- Winner in Wall Maze Solver Event held at Urjotsav 2023, RGIPT
- Qualified for JEE Advanced, 2022