PRASHANT KUMAR

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SUMMARY

Electrical and Electronics Engineering graduate seeking an entry-level position to leverage my strong analytical skills and technical skills in a dynamic engineering environment.My long-term goal is to develop into a proficient engineer,ultimately leading projects that drive efficiency and innovation in the industry.

Education

National Institute of Technology Andhra Pradesh **Nov 2022 – May 2026**

Bachelor of Technology in Electrical & Electronics Engineering,CGPA : 7.97/10 *Tadepalligudem, Andhra Pradesh*

Relevant Coursework

- Electrical Machine
- Power Systems
- Embedded Systems
- Control systems
- Renewable energy
- Power Electronics
- Python
- DSA

Experience

Grid Controller Of India Limited **June 2025 – July 2025**

Electrical Engineer Intern *Kolkata, West Bengal*

- Analyzed India's renewable energy (RE) expansion plans and assessed the challenges in integrating 500 GW RE capacity (solar, wind) by 2030 into the national grid..
- Studied technical challenges such as grid stability, variability of renewables, frequency control, and reactive power management and Proposed solutions including battery energy storage systems (BESS), demand-side management (DSM), flexible thermal generation, and grid digitalization.

Ircon International Limited **June 2024 – July 2024**

Summer Intern *Patna, Bihar*

- Gained hands-on experience in Power Substation operations, maintenance, and safety protocols.
- Learned about high-voltage power transmission, distribution systems,transformer operations, circuit breakers, and protection mechanisms. Assisted in monitoring and troubleshooting electrical equipment, ensuring efficient power flow and system reliability.

Projects

On board EV Charger | *MATLAB, Arduino, PCB Design* **April 2025**

- Designed and simulate a high-efficiency, buck converter based on-board electric vehicle charger with adaptive Constant Current–Constant Voltage (CC-CV) control. The project aims to ensure reliable, safe, and sustainable battery charging.
- Tools & Technologies:DC-DC converter, Battery Management Systems,Power Electronics,Microcontroller (Arduino/Raspberry Pi), MATLAB (for simulation), Embedded Systems.

Segmentation & classification of vegetation from satelite images | *Numpy, python* **March 2025**

- Built a machine learning model to classified vegetation areas from satelite images with high visual accuracy.
- Technologies Used: Python, Pandas, Numpy, Matplotlib.

3D Sonar Surveillance | *MATLAB, Arduino, Ultrasonic Sensor* **April 2024**

- Developed a 3D Sonar Surveillance System that utilizes sonar technology to detect Object, map, and visualize underwater objects in real-time.
- Designed the system for applications in marine security, navigation, and underwater exploration.Integrated hardware components with software algorithms for efficient data acquisition and visualization.

Portfolio | *HTML,CSS,Javascript* **March 2025**

- Developed a responsive single-page portfolio using HTML, CSS, JavaScript, optimized for various devices.
- Integrated dynamic content rendering and interactive UI features using JavaScript, enhancing user experience and engagement

Technical Skills

Programming Languages: Python, C++, HTML,CSS, JavaScript, Numpy,MySQL
Developer Tools: VS Code, Matlab, Matlab Simulink,Arduino, PCB Design, Verilog,Git,Github
Languages: English, Hindi

Leadership / Extracurricular

- Gained certificate on "NPTEL-System Design Through Verilog"(88%), & Hands-On Programming and Microcontroller Interfacing .
- Joint Secretary at Brindavanam Club(Aug 2024-Present).
- Volunteer at Vriksh Be The Change(Aug 2020-Present).