

# UTKARSH KUMAR YADAV

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## OBJECTIVE

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Passionate about Control Engineering, Power System Engineering, and Power Electronics. Highly adaptable to diverse environments with a strong ability to learn and apply new concepts quickly. Committed to continuous learning and problem-solving in the evolving field of electrical engineering.

## EDUCATION

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**Bachelor of Engineering in Electrical and Electronics Engineering, Chandigarh** 2022 - Present  
University Institute of Engineering and Technology, Chandigarh CGPA : 7.06

**CBSE, Class XII** 2021  
Sant Atulanand convent school, Varanasi, 71.2%

**CBSE, Class X** 2019  
Sant Atulanand convent school, Varanasi, 70.4%

## SKILLS

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**MATLAB , PCB DESIGNING , PLC PROGRAMING , POWER ELECTRONICS  
POWER SYSTEM , CONTROL ENGINEERING , PYTHON , MYSQL**

## INTERSHIP EXPERIENCE

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**DIC,Panjab University** June-July (2023)

- Developed a basic understanding of Arduino microcontroller programming and its applications in embedded system.
- Designed and implemented a motion detector and counter using Arduino UNO and PIR sensor, applying logic control and digital input-output concepts.
- Gained hands-on experience with sensors, microcontroller interfacing, and real-time signal processing.

**Bharat Heavy Electricals Limited (BHEL),Varanasi** June-July (2024)

- Analyzed 33kV power distribution systems at HERP, including XLPE cables, bus bars, metering units, and interpreted single-line diagrams for fault analysis, load sharing, and system monitoring.
- Gained practical exposure to Vacuum Circuit Breakers (VCBs) and Air Circuit Breakers (ACBs), studied ONAN and AN transformers with interlocking schemes, and worked on CT/PT-based current measurement.
- Studied power factor correction systems using 12-stage capacitor banks and APFC panels, and understood emergency backup systems through 500kVA 750kVA diesel generators, focusing on alternators, control panels, and cooling mechanisms.

**North Eastern Railway, Gorakhpur U.P** June-July (2025-Ongoing)

- Studied lighting systems in LHB coaches, focusing on AC/DC power supply, load distribution, and emergency backup systems.
- Analyzed circuit diagrams of coach lighting, including LED lights, battery charging units, rectifiers, and relay controls.
- Gained practical understanding of alternator-based power generation, lighting control mechanisms, and safety integration in coach electrical systems.

## PROJECTS

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### **SINGLE PHASE INDUCTION MOTOR WITH SMOOTH START**

NOVEMBER (2023)

- Designed a soft starter circuit using SCRs to gradually increase voltage supplied to a single-phase induction motor, preventing sudden voltage spikes and inrush current.
- Gained hands-on experience in power electronics, motor control, and AC voltage regulation, aimed at enhancing motor protection and system reliability.

### **OVERVOLTAGE AND UNDERVOLTAGE PROTECTION SYSTEM**

OCTOBER (2024)

- Designed a voltage protection system using sensing circuits and relays to automatically disconnect the load when voltage crosses predefined upper or lower limits.
- Ensured safety of electrical equipment by preventing damage from voltage fluctuations; gained practical exposure to protection circuit design and relay-based control systems.

## CERTIFICATIONS

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### **AI FOR ALL PROGRAMME BY INTEL**

DECEMBER (2022)

We had an interactive three day session by experts from INTEL and there I learned about the future scope of AI and AI integration in Electrical Engineering .

### **VIRTUAL LABS**

FEBRUARY (2025)

We had an interactive session from IIT delhi professor on virtual labs importance and how we can use different virtual lab facilities without even visiting any labs physically.

## HOBBIES

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Playing sports like basketball and volleyball .

Reading books and blog related to financial world.