# Khush Garg

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# Electrical Engineer | Power Systems, Data Analysis & Automation

# **Professional Summary**

Professional Power Management Researcher at MNIT Jaipur with experience in data-driven energy solutions, MATLAB/Python programming, and power system analysis. Known for a strong work ethic and problem-solving in renewable integration and smart grid technologies. Currently working on Cyber Security of Power System, Attack detection and prevention.

Keen on continuous learning, especially in automation and emerging energy technologies. Interested in smart control, data analytics, and modern energy management to improve efficiency and sustainability.

#### Education

## Malaviya National Institute of Technology Jaipur

Aug 2024 - Current

M. Tech in Power Systems Management

o CGPA: 7.86

 Coursework: Power Flow Study, Power System Economics, Power Market and Regulations, Demand Side Management, Risk Management, Smart Grid, Machine Learning

### Vardhmaan Mahaveer Open University Kota

July 2021 - June 2023

 $M.Sc\ in\ Mathematics$ 

o CGPA: 6

• Coursework: Advanced Alegbra, Real Analysis and Topology, Intergral Transform and Integral Equation, Differential Equations, Mechanics, Optimization Techniques

#### Rajasthan Technical University Kota

Aug 2016 - Nov 2020

B. Tech in Electrical Engineering

• CGPA: 7.64

## Board of Secondary Education Rajasthan, Ajmer

2016

 $Senior\ Secondary$ 

• Percentage: 86.60 %

#### Board of Secondary Education Rajasthan, Ajmer

2014

Secondary

o Percentage: 77. 83 % (100% in mathematics)

#### Experience

## **Electrical Engineering Trainee**

Rawan, Chattisgarh

Ultra Tech Pvt Ltd

May 2019 - July 2019

- Acquired practical knowledge on the operations of thermal power plants, focusing on power generation cycles and energy efficiency.
- Gained hands-on experience with switchgear systems, protective relays, and load management practices.
- Developed a knowledge of electrical maintenance, safety protocols, and standard operating procedures at the plant level.
- Observed integration of automation and control systems within power distribution.

#### Teaching & Mentorship

Keshoraipatan

Indian Convent Sr Sec School

2020 - 2024

- Delivered structured lessons in Mathematics, Science and Chemistry.
- o Conducted Physics and Chemistry Lab Sessions, CBSE and RBSE Board Practical Examination
- o Gained web development experience by creating school website.
- Learn skills of Great Communication, Problem Solving, Critical Thinking, Organizational Management, Mentorship, and Leadership.

#### Courses and Achievement

## Rajasthan State Certificate in Information Technology (98%)

2020

Vardhmaan Mahaveer Open University, Kota

#### Bootcamp on Android Fundamentals and App Development

Feb 2025

Department of CSE, MNIT Jaipur

• Successfully completed a five-day Bootcamp, sponsored by Information Security Education and Awareness (ISEA) - Phase III.

GATE Qualified 2024

# **Projects**

#### **HVDC** Transmission and FACTS Devices

2019 - 2020

B. Tech Seminar Project, Rajasthan Technical University, Kota

- Conducted a seminar and prepared a report on High Voltage Direct Current (HVDC) transmission systems and Flexible AC Transmission Systems (FACTS) devices.
- Explored the principles and applications of HVDC for efficient long-distance power transmission.
- Investigated the role of FACTS devices in improving the stability, controllability and power transfer capacity
  of the power system.
- Analyzed the operation of Voltage Source Converters (VSC) in FACTS devices, including their use in STATCOM and UPFC.

## Thermal Power Plant Study

2019 - 2020

B. Tech Project Presentation, Rajasthan Technical University, Kota

- Presented a comprehensive study of the operations of thermal power plants, including coal handling, water treatment, boiler systems, and power generation.
- Highlighted key components like turbines, condensers, and electrostatic precipitators.

## Skills

**Languages:** C, C++, Python, SQL

Software: MATLAB, GAMS, PLEXOS, PSS®E, MS Office (Word, Excel, Power Point), Power BI

# Volunteering

National Service Scheme (NSS)

Jan 2015 - Jan 2016

Volunteering in PIICON 2024

Dec 2024

## Languages

Hindi: Native proficiency English: Fluent proficiency French: Basic proficiency

# **Hobbies**

Reading Books, Yoga, Chess, Learning new skills