

# Khush Garg

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**Electrical Engineer | Power Systems Management & Energy Data Analyst**

## Professional Summary

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Power Systems Management Researcher at MNIT Jaipur with experience in data-driven energy solutions, MATLAB/Python programming, and power system analysis. expertise in renewable integration and smart grid technologies, Power Market Regulations, RPO, PPA etc. Worked on Open Access, Cyber Security of Power System, Attack detection and prevention. Currently, Focusing on the production of Green Hydrogen in India.

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

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**M.Tech in Power Systems Management** *Aug 2024 – Current*  
*Malaviya National Institute of Technology Jaipur*

- CGPA: 8.39
- **Coursework:** Power Flow Study, Power System Economics, Power Market and Regulations, Open Access, Demand Side Management, Smart Grid, Machine Learning, Demand Estimation, Risk Management

**M.Sc in Mathematics** *July 2021 – June 2023*  
*Vardhmaan Mahaveer Open University Kota*

- CGPA: 6.2
- **Coursework:** Advanced Algebra, Real Analysis and Topology, Integral Transform and Integral Equation, Differential Equations, Mechanics, Optimisation Techniques

**B.Tech in Electrical Engineering** *Aug 2016 – Nov 2020*  
*Rajasthan Technical University Kota*

- CGPA: 7.64

**Senior Secondary** *2016*  
*Board of Secondary Education Rajasthan, Ajmer*

- Percentage: 86.60 %

**Secondary** *2014*  
*Board of Secondary Education Rajasthan, Ajmer*

- Percentage: 77.83 % (100% in Mathematics)

## Experience

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**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.
- Promoted safety by upholding maintenance protocols and SOPs.
- 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.
- Conducted Physics and Chemistry Lab Sessions, CBSE and RBSE Board Practical Examination

## Courses and Achievement

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**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

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### Green Hydrogen Infrastructure assessment & LCOH Analysis

2024 - Present

M.Tech Dissertation, MNIT Jaipur

- Calculated Levelized Cost of Hydrogen (LCOH) considering Indian regulatory frameworks and renewable energy mix.
- Projected future Green Hydrogen demand and Performed infrastructure assessment simulation using PyPSA and GAMSpy.

### MNIT Resale - Student Marketplace

2025

Marketplace for New and Ideal Things within Campus | Website: <https://mmitresale.shop>

- Developed and launched a free, no-mediator campus marketplace; benefited 1,500+ students to date.
- Reduced waste and improved affordability through peer-to-peer reuse on campus.

### HVDC Transmission and FACTS Devices

2019 - 2020

B.Tech Seminar Project, Rajasthan Technical University, Kota

- Analyzed HVDC principles for efficient long-distance transmission and FACTS devices for grid stability enhancement.
- Investigated improvements in power transfer capacity and voltage controllability within transmission networks.

### 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

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**Languages:** C, C++, Python, SQL, HTML, CSS, JavaScript

**Software:** MATLAB, GAMS, PLEXOS, PSS@E, PyPSA, LEAP, MS Office, Power BI, LaTeX

## Volunteering

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National Service Scheme (NSS)

Jan 2015 - Jan 2016

Secretary, IEEE PES SBC MNIT Jaipur

Sept 2024 - current

Secretary, IEEE IAS SBC MNIT Jaipur

March 2025 - current

Volunteering in PIICON 2024

Dec 2024

Volunteering in SEFET 2025

July 2025

## Languages

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Hindi, English, French (Basic)

## Hobbies

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Yoga, Chess, Badminton, Learning new skills

## Personal Portfolio

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**Website:** <https://khushgarg.tech>