



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

इलेक्ट्रिकल और इलेक्ट्रॉनिक्स इंजीनियर

Electrical and electronics (EEE) engineers work on power generation, transmission, motors, devices and smart grids.

In the era of solar energy and electric vehicles it is an evergreen branch.



Scan for everything on this career

Salary, exams, colleges, the routes in and the steps after — all on the portal.

career.gsssjethantri.in/#/career/eng-4612

राजकीय उच्च माध्यमिक विद्यालय, जेठन्तरी

Govt. Sr. Sec. School, Jethantri · ब्लॉक समदड़ी · बालोतरा (Block Samdari · Balotra)

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सुशील कुमार शर्मा

प्रधानाचार्य, रा.उ.मा.वि. जेठन्तरी · मास्टर ट्रेनर
Principal, GSSS Jethantri · Master Trainer



श्री चेनाराम चौधरी

प्रधानाचार्य, डाइट बाड़मेर
Principal, DIET Barmer



श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
Sr. Lecturer, DIET Barmer (Support)



भरत चौधरी

अभिकल्पना व विकास · व्याख्याता (इतिहास)
Designed & developed · Lecturer (History)

विशेष धन्यवाद · SPECIAL THANKS



सुरेन्द्र सिंह राठौड़

व्याख्याता (इतिहास) · रा.उ.मा.वि. कानाना



सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

व्याख्याता (इतिहास) · रा.उ.मा.वि. रामसीन मूंगड़ा



कमलेश चौधरी

व्याख्याता (राजनीति विज्ञान) · रा.उ.मा.वि. टापरा

करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

Electrical and electronics (EEE) engineers work on power generation, transmission, motors, devices and smart grids. In the era of solar energy and electric vehicles it is an evergreen branch.

2 At a glance

Minimum qualification	12th PCM + B.Tech/B.E. or diploma
Work mode	Plant, site and office; travel possible
Demand	Steadily high - from solar, EV and grid expansion
Top earning	Project manager/chief engineer: Rs 1.5-2.5 lakh+/month

3 What you need

INTERESTS

- Interest in electricity and machines
- Solving practical problems
- Liking for science subjects

ABILITIES

- Analytical thinking
- Ability to lead a team
- Safety consciousness

KEY SKILLS

- Electrical machines and power systems
- PLC/SCADA automation
- Electrical drawings and AutoCAD
- Circuits and control systems
- Solar and renewable energy technology
- Maintenance and troubleshooting

4 How to get there

- 1 Pass 10+2 with Physics, Chemistry, Maths.
- 2 Do B.Tech/B.E. (EEE) via JEE Main/Advanced or REAP, or take a polytechnic diploma after 10th.
- 3 Do internship/apprenticeship at a power plant, discom or factory.
- 4 Take GATE for PSUs like NTPC-PowerGrid or M.Tech.
- 5 Also attempt RVUNL/discom JEn-AEn recruitment exams.

MAIN EXAMS

- JEE Main / JEE Advanced
- GATE (EE)
- SSC JE
- REAP (Rajasthan)
- Rajasthan JEn/AEn (power department) exams

5 Where to study

GOVERNMENT INSTITUTES

- MNIT Jaipur — Jaipur, Rajasthan (<https://www.mnit.ac.in>)
- MBM University — Jodhpur, Rajasthan
- CTAE (MPUAT) — Udaipur, Rajasthan
- Rajasthan Technical University (RTU) — Kota, Rajasthan
- Govt Polytechnic Colleges (Diploma) — Jaipur and other districts, Rajasthan
- IIT Jodhpur (Electrical) — Jodhpur, Rajasthan (<https://iitj.ac.in>)

PRIVATE INSTITUTES

- BITS Pilani — Pilani, Rajasthan
- Manipal University Jaipur — Jaipur, Rajasthan
- BIT Mesra — Ranchi, Jharkhand

ONLINE

- NPTEL/SWAYAM (Electrical Engineering courses) — Online (<https://nptel.ac.in>)

FEES

Full course about Rs 1-4 lakh in government institutes; Rs 4-15 lakh in private. Polytechnic diploma Rs 20,000-1 lakh; varies by institute.

SCHOLARSHIPS

- National Scholarship Portal (<https://scholarships.gov.in>)
- Vidya Lakshmi Education Loan Portal (<https://www.vidyalakshmi.co.in>)
- Buddy4Study (<https://www.buddy4study.com>)

6 What the work is like

WHERE YOU WORK

Power generation-transmission companies, solar-wind plants, factories, railways-metro, construction projects and the armed forces.

WORK CULTURE

Around 8 hours daily or more; site travel and team leadership are common. Shift duty in plants. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|--|-----------------------------------|
| • Rajasthan discoms and RVUNL | • NTPC / PowerGrid / NHPC |
| • BHEL / Railways / Metro | • Siemens / ABB / Schneider / L&T |
| • Solar firms (Adani, ReNew - Rajasthan's solar parks) | • EV and battery companies |

DEMAND (2026)

In 2026, solar parks like Bhadla, grid modernisation and EV charging networks keep EEE demand steadily high in Rajasthan.

7 Career growth

- 1 Technician / junior engineer
- 2 Electrical engineer
- 3 Supervisor / assistant engineer
- 4 Project manager
- 5 Chief engineer / general manager

EARNINGS

Starting	₹20,000-40,000
Mid level	₹50,000-1,00,000
Senior level	₹1,20,000-2,50,000

Monthly pay; allowances extra in PSUs and government departments. 2026 levels, indicative.

8 The good parts · The challenges

The good parts

- Evergreen demand - electricity is needed everywhere
- Strong PSU and government job options
- New opportunities from the solar-EV revolution

The challenges

- Physically demanding, risky site/plant work
- Postings at remote project locations
- Possible long wait in government recruitment

9 Real-life journeys

F. C. Kohli

Electrical engineer; first CEO of TCS, father of the Indian IT industry

After electrical engineering at MIT, F.C. Kohli ran power systems at Tata Electric and pioneered computer control of Mumbai-Pune power lines. That experience led him to build TCS, earning the Padma Bhushan.

Wikipedia · https://en.wikipedia.org/wiki/Fakir_Chand_Kohli

Dr. V. R. Lalithambika

Electrical engineer; former Director, ISRO Human Spaceflight Programme (Gaganyaan)

An electrical engineering graduate from the government engineering college in Thiruvananthapuram, Lalithambika built rocket control and guidance systems at ISRO. She directed the Gaganyaan programme and received France's Legion of Honour.

Wikipedia · https://en.wikipedia.org/wiki/V._R._Lalithambika

10 If this route does not work out

One exam or one attempt does not close the door. The same subjects also open these routes — entry is usually easier, and you can return to this field later.

- Mechanical Engineer
- Civil Engineer
- Electronics and Communication Engineer

11 Sources & further reading

1. Rajasthan Career Guidance: Electrical and Electronics Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%87%e0%a4%b2%e0%a5%87%e0%a4%95%e0%a5%8d%e0%a4%9f%e0%a5%8d%e0%a4%b0%e0%a4%bf%e0%a4%95%e0%a4%b2%e0%a4%94%e0%a4%b0-%e0%a4%87%e0%a4%b2%e0%a5%87%e0%a4%95%e0%a5%8d%e0%a4%9f%e0%a5%8d%e0%a4%b0%e0%a5%89/>
2. AICTE — <https://www.aicte-india.org>
3. NPTEL (free online courses) — <https://nptel.ac.in>
4. National Career Service (NCS) — <https://www.ncs.gov.in>



And 770+ more careers — the whole portal

Interest and aptitude tests, government jobs, skill courses and a CV builder — free, no login, and it works offline.

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