



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

अभियंता (इंजीनियर)

Engineers use science and maths to design and build machines, buildings, software and solutions. Branches include mechanical, civil, electrical, computer and electronics. You can enter via a diploma or a B.Tech/B.E degree.



Scan for everything on this career

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

career.gsssjethantri.in/#/career/engineer

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

Engineers use science and maths to design and build machines, buildings, software and solutions. Branches include mechanical, civil, electrical, computer and electronics. You can enter via a diploma or a B.Tech/B.E degree.

2 At a glance

Min qualification	Diploma (after Class 10) or 12th PCM + B.Tech/B.E
Work mode	Office, factory, site or remote (varies by branch)
Demand (2026)	High — especially IT, computer and core sectors
Top earning	₹25–60 lakh+/year (top firms/abroad)

3 What you need

INTERESTS

- Curiosity about how machines and technology work
- Solving problems and building new things
- Interest in maths, science and design

ABILITIES

- Logical and analytical thinking
- Mathematical and spatial ability
- Attention to detail and precision

KEY SKILLS

- Strong maths and physics foundation
- Problem-solving and analysis
- CAD/design or coding tools
- Project and teamwork management
- Communication and technical writing
- Habit of continuous learning

4 How to get there

- 1 After Class 10, do a 3-year diploma via polytechnic (Rajasthan Polytechnic)
- 2 Or take Class 11-12 Science with PCM (Physics, Chemistry, Maths)
- 3 After 12th, enter B.Tech/B.E via JEE Main/Advanced or REAP
- 4 Diploma holders can enter B.Tech 2nd year directly via lateral entry
- 5 Pick a branch by interest — mechanical, civil, computer, etc.
- 6 Later, GATE for M.Tech/PSU jobs, or work in core/IT companies

MAIN EXAMS

- JEE Main — national exam for NITs, IIITs and B.Tech colleges
- REAP — admission counselling for Rajasthan engineering colleges
- GATE — for M.Tech and PSU (IOCL, ONGC, BHEL) jobs
- JEE Advanced — for IIT admission (after clearing JEE Main)
- Rajasthan Polytechnic admission — for diploma after Class 10

5 Where to study

GOVERNMENT INSTITUTES

- MNIT Jaipur (NIT) — Jaipur, Rajasthan (<https://mnit.ac.in/>)
- MBM University — Jodhpur, Rajasthan (<https://mbm.ac.in/>)
- Rajasthan Technical University (RTU) — Kota, Rajasthan
- Govt Polytechnic Colleges — Across Rajasthan (<https://kdhte.rajasthan.gov.in/>)
- IITs & NITs — Across India

PRIVATE INSTITUTES

- Manipal University Jaipur — Jaipur, Rajasthan
- JECRC University — Jaipur, Rajasthan
- BITS Pilani — Pilani, Rajasthan

ONLINE

- NPTEL / SWAYAM — Online courses (<https://nptel.ac.in/>)
- IIT Madras BS in Data Science — Online degree (<https://study.iitm.ac.in/ds/>)

FEES

Govt polytechnic diploma is often ₹5,000–15,000/year; govt B.Tech (MNIT/RTU) ₹1–1.5 lakh/year; private colleges ₹1.5–4 lakh/year. Scholarships are available for SC/ST/OBC and economically weaker students.

SCHOLARSHIPS

- National Scholarship Portal (NSP) (<https://scholarships.gov.in/>)
- Rajasthan SSO Scholarship Portal (<https://sso.rajasthan.gov.in/>)
- AICTE Pragati Scholarship for Girls

6 What the work is like

WHERE YOU WORK

Engineers work in offices, factories, construction sites, power/water plants, IT companies and research labs.

WORK CULTURE

Teamwork, project-based deadlines and constantly learning new technology are common. Core branches also involve field work.

WHO HIRES

- Core and construction firms like L&T, Tata, Adani
- PSUs — IOCL, ONGC, BHEL, NTPC, Railways
- Automobile — Maruti, Tata Motors, Mahindra
- Research and defence bodies like ISRO, DRDO
- IT firms — TCS, Infosys, Wipro, Google
- Startups and own ventures

DEMAND (2026)

Demand for engineers is high in 2026, especially in computer/IT, AI, electronics and renewable energy. Core branches also see rising opportunities from infrastructure growth.

7 Career growth

- 1 Trainee/Junior Engineer (after diploma/degree)
- 2 Engineer / Software Engineer
- 3 Senior Engineer / Team Lead

4 Manager / Project Head / Principal Engineer

EARNINGS

Starting	₹3-6 लाख/वर्ष
Mid level	₹8-15 लाख/वर्ष
Senior level	₹20-50 लाख/वर्ष

IT/computer engineers often start higher than core branches. PSU engineers selected via GATE earn roughly ₹60,000–80,000/month with government benefits.

8 The good parts · The challenges

The good parts

- Good pay and wide opportunities in India and abroad
- Many branches — freedom to pick a field by interest
- Satisfaction of building real solutions for society

The challenges

- Entrance exams (JEE) are tough and competitive
- Technology changes fast, constant learning is needed
- Some jobs have long hours and deadline pressure

9 Real-life journeys

Inderjeet

Student at IIT Roorkee (Data Science)

Inderjeet, an e-rickshaw driver's son from Pathanwala village in Sri Ganganagar, cracked JEE Advanced 2026. With unreliable power at home, he studied using free internet at a nearby village library and affordable online classes, becoming his village's first IITian.

The Logical Indian · <https://thelogicalindian.com/rajasthan-village-to-get-first-iitian-as-e-rickshaw-drivers-son-clears-jee-advanced-2026/>

Korsa Lakshmi**Electrical engineering student at IIT Patna**

Korsa Lakshmi, a tribal girl from a Telangana village whose father sells ice cream and whose parents are illiterate, cracked JEE Advanced and joined IIT Patna for electrical engineering. Her story shows that with hard work, goals are within reach whatever the circumstances.

DNA India · <https://www.dnaindia.com/education/report-meet-korsa-lakshmi-daughter-of-ice-cream-seller-who-cracked-iit-jee-telangana-tribal-woman-inspiring-story-3056271>

10 Sources & further reading

1. REAP Rajasthan 2026 counselling — <https://reap2026.in/>
2. MNIT Jaipur official website — <https://mnit.ac.in/>
3. Rajasthan Dept of Technical Education (polytechnic) — <https://kdhte.rajasthan.gov.in/>
4. JEE Main (NTA) — <https://jeemain.nta.nic.in/>
5. GATE official information — <https://gate2026.iitg.ac.in/>

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

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