



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

रासायनिक इंजीनियर

Chemical engineers design the processes and plants that turn raw materials into useful products like fuel, fertiliser, medicines and plastics. They are needed from refineries to green hydrogen.



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-4607

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

Chemical engineers design the processes and plants that turn raw materials into useful products like fuel, fertiliser, medicines and plastics. They are needed from refineries to green hydrogen.

2 At a glance

Minimum qualification	12th (PCM) + B.Tech/B.E. in Chemical Engineering
Work mode	Plant and office; shift duty possible
Demand	Steady-good; in refineries, pharma and green energy
Top earning	Production/plant head: Rs 2.5-3 lakh+/month

3 What you need

INTERESTS

- Interest in chemistry and maths
- Working with numbers
- Analysing processes

ABILITIES

- Analytical and practical thinking
- Team and plant management
- Safety consciousness

KEY SKILLS

- Chemical process design
- Process simulation software (Aspen)
- Quality control
- Thermodynamics and fluid mechanics
- Plant safety and environment norms
- Problem solving and teamwork

4 How to get there

- 1 Pass 10+2 with Physics, Chemistry, Maths.
- 2 Do B.Tech/B.E. in Chemical Engineering via JEE Main/Advanced or REAP.
- 3 Do summer internships in a refinery/chemical plant.
- 4 Clear GATE for M.Tech or PSU jobs (IOCL, ONGC).
- 5 Start as a process/production engineer.

MAIN EXAMS

- JEE Main / JEE Advanced
- BITSAT
- REAP (Rajasthan)
- GATE (Chemical) - for M.Tech and PSUs

5 Where to study

GOVERNMENT INSTITUTES

- MNIT Jaipur — Jaipur, Rajasthan (<https://www.mnit.ac.in>)
- IIT Jodhpur — Jodhpur, Rajasthan (<https://iitj.ac.in>)
- Rajasthan Technical University (RTU) — Kota, Rajasthan (<https://www.rtu.ac.in>)
- IIT Bombay — Mumbai, Maharashtra

PRIVATE INSTITUTES

- BITS Pilani — Pilani, Rajasthan (<https://www.bits-pilani.ac.in>)
- Manipal University Jaipur — Jaipur, Rajasthan (<https://jaipur.manipal.edu>)
- Thapar Institute of Engineering and Technology — Patiala, Punjab

ONLINE

- NPTEL/SWAYAM (Chemical Engineering courses) — Online (<https://nptel.ac.in>)
- IGNOU (related science programmes) — Online/distance (<https://www.ignou.ac.in>)

FEES

Full B.Tech course about Rs 50,000-10 lakh; much lower in government institutes, higher in private ones.

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

Refineries, petrochemical and fertiliser plants, pharma-cement industries; in Rajasthan the Barmer refinery and Kota-Chambal belt plants.

WORK CULTURE

Often 6 days a week, 8-10 hours; shift duty in plants with strict safety rules. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|---|------------------------------|
| • IOCL / HPCL / BPCL | • HRRL Barmer refinery |
| • Chambal Fertilisers and Shriram chemicals | • Hindustan Zinc, Udaipur |
| • Pharma companies (Cipla, Sun Pharma) | • Cement and FMCG industries |

DEMAND (2026)

Demand is healthy in 2026 from refining, speciality chemicals and green hydrogen projects; the Barmer refinery has created new openings in Rajasthan.

7 Career growth

- 1 Assistant Engineer
- 2 Chemical Engineer
- 3 Senior Chemical Engineer
- 4 Process Engineer
- 5 Production Manager

EARNINGS

Starting	₹25,000-50,000
Mid level	₹60,000-1,20,000
Senior level	₹1,50,000-3,00,000+

Monthly pay, 2026 levels; higher in PSUs and big private firms, indicative.

8 The good parts · The challenges

The good parts

- Jobs across industries including PSUs
- Good pay and stable career
- Expansion into new areas like green energy

The challenges

- Plants often far from cities
- Shift duty and long hours
- Safety risks around chemicals

9 Real-life journeys

Prof. Man Mohan Sharma

Eminent chemical engineer; Fellow of the Royal Society

Born in Jodhpur, Prof. Sharma studied at UDCT Mumbai and Cambridge and became the first Indian engineer elected Fellow of the Royal Society. A Padma Vibhushan awardee, his research and students shaped India's chemical industry.

ChemEng Evolution · <https://www.chemengevolution.org/inspirational-chemical-engineers/professor-man-mohan-sharma>

Dr. N. Kalaiselvi

Director General, CSIR

Educated in a Tamil-medium school in a small Tamil Nadu town, Kalaiselvi became a leading lithium-ion battery scientist. In 2022 she became the first woman Director General of CSIR.

The Better India · <https://thebetterindia.com/293418/n-kalaiselvi-csir-first-woman-director-from-tamil-nadu-inspiring-woman-scientist/>

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.

- Civil Engineer
- Agricultural Engineer
- Aeronautical Engineer

11 Sources & further reading

1. Rajasthan Career Guidance: Chemical Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%b0%e0%a4%be%e0%a4%b8%e0%a4%be%e0%a4%af%e0%a4%a8%e0%a4%bf%e0%a4%95-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8%e0%a4%bf%e0%a4%af%e0%a4%b0chemical-engineer/>
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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