



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

प्रॉसेस इंजीनियर

Process engineers design, control and improve the processes that turn raw materials into products in factories. It is a key role in refineries, chemicals, pharma and cement industries.



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-4646

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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

Process engineers design, control and improve the processes that turn raw materials into products in factories. It is a key role in refineries, chemicals, pharma and cement industries.

2 At a glance

Minimum qualification	12th PCM + B.Tech in chemical/process engineering
Work mode	Plant + control room; shifts possible
Demand	Good - in refineries, green energy and pharma
Top earning	GM/Director: Rs 2.5 lakh+/month

3 What you need

INTERESTS

- Interest in science and maths
- Liking for experiments
- Urge to improve processes

ABILITIES

- Analysing problems and situations
- Good computer proficiency
- Team spirit and safety awareness

KEY SKILLS

- Chemical process design
- Process simulation (Aspen etc.)
- Understanding of P&ID and equipment
- Safety and environment standards
- Data analysis and quality improvement
- Project and cost management

4 How to get there

- 1 Pass 10+2 with Physics, Chemistry, Maths.
- 2 Do B.Tech in chemical/process engineering via JEE Main/Advanced or REAP.
- 3 Intern at a refinery/chemical plant.
- 4 Get placed on campus, or enter PSUs (IOCL, ONGC) via GATE.
- 5 Deepen expertise later with M.Tech/MS.

MAIN EXAMS

- JEE Main / JEE Advanced
- REAP (Rajasthan)
- BITSAT
- GATE (Chemical)

5 Where to study

GOVERNMENT INSTITUTES

- MNIT Jaipur (Chemical Engineering) — Jaipur, Rajasthan (<https://www.mnit.ac.in>)
- IIT Jodhpur — Jodhpur, Rajasthan (<https://iitj.ac.in>)
- Rajasthan Technical University (RTU) — Kota, Rajasthan
- IIT Roorkee / IIT Kanpur — Roorkee/Kanpur
- MNIT-level NITs (Trichy, Surathkal) — Various states

PRIVATE INSTITUTES

- BITS Pilani — Pilani, Rajasthan
- Manipal University Jaipur — Jaipur, Rajasthan
- UPES Dehradun — Dehradun, Uttarakhand

ONLINE

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

FEES

About Rs 50,000-4.5 lakh in government institutes and Rs 4-15 lakh in private ones (full course); varies by institute.

SCHOLARSHIPS

- National Scholarship Portal (<https://scholarships.gov.in>)
- AICTE Pragati (girls) / Saksham scholarships (<https://www.aicte-india.org>)

6 What the work is like

WHERE YOU WORK

Refineries, petrochemicals, pharma, cement, food and mining companies; projects like the Barmer refinery are adding opportunities in Rajasthan.

WORK CULTURE

5-6 days a week, 8-9 hours; shift system possible in plants. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|---------------------------------|--|
| • IOCL / HPCL (Barmer refinery) | • Reliance / Adani |
| • Shree Cement / UltraTech | • Pharma companies (Cipla, Sun Pharma) |
| • Fertiliser and chemical PSUs | • Engineering consultancies (EIL, Technip) |

DEMAND (2026)

In 2026, expansion in refining, green hydrogen, pharma and speciality chemicals keeps demand for process engineers strong.

7 Career growth

- 1 Assistant/Graduate Engineer
- 2 Process Engineer
- 3 Process Engineering Manager
- 4 General Manager
- 5 Director (Operations)

EARNINGS

Starting	₹25,000-45,000
Mid level	₹60,000-1,20,000
Senior level	₹1,50,000-2,50,000+

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

8 The good parts · The challenges

The good parts

- Stable career and good pay in core industry
- Opportunities in PSUs and abroad
- Expansion into new areas like energy-environment

The challenges

- Shifts and remote plant locations possible
- Strict safety responsibility around chemicals
- Competition for limited entry openings

9 Real-life journeys

Dr. R. A. Mashelkar

Chemical engineer; former Director General, CSIR

Rising from a very modest family, Raghunath Mashelkar studied chemical engineering in Mumbai and went on to lead CSIR's nearly 40 national labs; he is a Padma Vibhushan awardee.

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

Isabel Pazmino-Mayorga

Process engineer and researcher, University of Manchester

Educated in Ecuador, Isabel worked as a process engineer in oil refining and a cement plant before her chemical engineering PhD at the University of Manchester; AIChE published her interview.

AIChE ChEnected · <https://chenected.aiche.org/2022/08/meet-process-engineer-isabel-pazmino-mayorga>

10 Sources & further reading

1. Rajasthan Career Guidance: Process Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%aa%e0%a5%8d%e0%a4%b0%e0%a5%89%e0%a4%b8%e0%a5%87%e0%a4%b8-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8%e0%a4%bf%e0%a4%af%e0%a4%b0-process-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>



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