



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

न्यूक्लियर इंजीनियर

A nuclear engineer designs and operates reactors, plants and equipment for the safe use of nuclear energy and radiation. With Rawatbhata in Rajasthan hosting a major atomic power station, this field offers special opportunities...



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-4690

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

A nuclear engineer designs and operates reactors, plants and equipment for the safe use of nuclear energy and radiation. With Rawatbhata in Rajasthan hosting a major atomic power station, this field offers special opportunities for the state's students.

2 At a glance

Minimum qualification	B.Tech/BE (Nuclear/Mechanical)
Work mode	Plant + lab + office
Demand	Rising — new reactors and SMR programme
Top earning	₹2,50,000+ per month (senior level)

3 What you need

INTERESTS

- Enjoying science and experiments
- Analysing problems and situations
- Curiosity about how things work

ABILITIES

- Strong grasp of physics and mathematics
- Patience and attention to detail
- Alertness to safety rules

KEY SKILLS

- Reactor physics and thermodynamics
- Computer simulation and modelling
- Teamwork and clear reporting
- Radiation safety
- Following quality and safety standards
- Problem-solving and decision-making

4 How to get there

- 1 Choose Science (PCM) after Class 10
- 2 Pass Class 12 with Physics, Chemistry, Maths
- 3 Do B.Tech in Nuclear or Mechanical/Chemical Engineering via JEE/REAP
- 4 Take GATE for M.Tech or NPCIL/BARC training schemes
- 5 Become a scientific officer via BARC Training School/OCES recruitment

MAIN EXAMS

- JEE Main / JEE Advanced
- REAP (Rajasthan engineering admission)
- GATE (M.Tech and PSU recruitment)
- BARC OCES/DGFS selection test

5 Where to study

GOVERNMENT INSTITUTES

- IIT Bombay — Mumbai, Maharashtra (<https://www.iitsystem.ac.in>)
- IIT Kanpur (Nuclear Engineering & Technology) — Kanpur, Uttar Pradesh (<https://www.iitsystem.ac.in>)
- Homi Bhabha National Institute — Mumbai, Maharashtra
- MNIT Jaipur (Mechanical/Physics base) — Jaipur, Rajasthan (<https://mnit.ac.in>)
- Jadavpur University — Kolkata, West Bengal

PRIVATE INSTITUTES

- Amity University — Noida, Uttar Pradesh
- UPES — Dehradun, Uttarakhand
- SRM Institute of Science and Technology — Chennai, Tamil Nadu

ONLINE

- NPTEL (Nuclear Reactor Technology) — Online (<https://nptel.ac.in>)
- SWAYAM — Online (<https://swayam.gov.in>)

FEES

B.Tech fees are about ₹20,000-1,00,000 per year in government institutes; up to ₹1,00,000-3,00,000 per year in private ones.

SCHOLARSHIPS

- National Scholarship Portal (NSP) (<https://scholarships.gov.in>)
- Vidya Lakshmi Education Loan (<https://www.vidyalakshmi.co.in>)
- Buddy4Study (<https://www.buddy4study.com>)
- AICTE Student Schemes (<https://www.aicte-india.org/schemes/students-development-schemes>)

6 What the work is like

WHERE YOU WORK

Atomic power stations (like Rawatbhata), national labs such as BARC, government agencies, research institutes, medical and energy sectors.

WORK CULTURE

5-6 days a week, 8-9 hours daily; shifts and strict safety protocols; supervising teams and occasional travel. Opportunities exist for persons with disabilities too.

WHO HIRES

- Nuclear Power Corporation of India (NPCIL)
- Department of Atomic Energy
- Energy and engineering companies (L&T etc.)
- Bhabha Atomic Research Centre (BARC)
- DRDO and defence organisations
- Hospitals and radiation medicine centres

DEMAND (2026)

India is working to triple nuclear capacity by 2032 and on small modular reactors (SMRs); new units at Rawatbhata are adding opportunities in Rajasthan too.

7 Career growth

- 1 Nuclear Engineer/Scientific Officer
- 2 Senior Engineer
- 3 Associate Manager (Operations)
- 4 Plant Manager
- 5 General Manager/Station Director

EARNINGS

Starting	₹35,000-60,000
Mid level	₹80,000-1,50,000
Senior level	₹1,50,000-2,50,000+

Scientific officer pay in NPCIL/BARC starts at government Level 10; figures are monthly and indicative.

8 The good parts · The challenges

The good parts

- Stable, prestigious jobs in the government sector
- Direct contribution to national energy security
- High pay and excellent training

The challenges

- Limited seats and openings, tough competition
- Postings at remote plant locations
- Work pressure under strict safety rules

9 Real-life journeys

Nilofer Khan

Nuclear Engineer, Rajasthan Atomic Power Station

Nilofer Khan from Ujjain finished engineering at a private college and completed NPCIL training. Working in the control room of the 220 MW RAPS-5 unit at Rawatbhata, Rajasthan, she became a role model in a male-dominated field.

Deccan Herald · <https://www.deccanherald.com/content/430929/women-engineers-nuke-plant-strongrooms.html>

Dr. Anil Kakodkar

Former Chairman, Atomic Energy Commission

Born in the small town of Barwani, Madhya Pradesh, Anil Kakodkar studied mechanical engineering in Mumbai and began as a reactor engineer at BARC. He received the Padma Vibhushan for the Dhruva reactor and India's indigenous nuclear programme.

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

10 Sources & further reading

1. Rajasthan Career Guidance Portal — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%a8%e0%a5%8d%e0%a4%af%e0%a5%82%e0%a4%95%e0%a5%8d%e0%a4%b2%e0%a4%bf%e0%a4%af%e0%a4%b0-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8%e0%a4%bf%e0%a4%af%e0%a4%b0-nuclear-engineer/>
2. NPCIL official website — <https://www.npcil.nic.in>
3. National Career Service (NCS) — <https://www.ncs.gov.in>
4. National Scholarship Portal — <https://scholarships.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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