



SAARTHI • सारथी

करियर मार्गदर्शन पोर्टल • Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट • CAREER SHEET

भौतिक विज्ञानी

Physicists study matter, energy and the interactions between them. They build theories, run experiments and apply their discoveries across research, teaching and industry.



Scan for everything on this career

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

career.gsssjethantri.in/#/career/physicist

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

Physicists study matter, energy and the interactions between them. They build theories, run experiments and apply their discoveries across research, teaching and industry.

2 At a glance

Minimum qualification	B.Sc → M.Sc → PhD (Physics)
Selection exam	JEST, CSIR-NET, GATE
Work mode	Lab, university, industry
Starting salary	₹40,000–60,000/month

3 What you need

INTERESTS

- Desire to study physics-related subjects
- Interest in maths and problem-solving
- Enjoy experimenting

ABILITIES

- Strong mathematical skills
- Solving problems with computers
- Logical and abstract thinking

KEY SKILLS

- Mathematical modelling
- Programming and simulation
- Operating laboratory instruments
- Designing and running experiments
- Data analysis
- Scientific writing

4 How to get there

- 1 Complete 10+2 in Science (Physics, Chemistry, Maths).

- 2 Earn a B.Sc in Physics.
- 3 Do an M.Sc in Physics or a related field.
- 4 Pursue a PhD for research or teaching.
- 5 Enter institutes via JEST / CSIR-NET / GATE.
- 6 Also explore opportunities in industry and defence.

MAIN EXAMS

- JEST (Joint Entrance Screening Test)
- CSIR-UGC NET
- GATE (Physics)
- IIT JAM (M.Sc admission)

5 Where to study

GOVERNMENT INSTITUTES

- University of Rajasthan — Jaipur, Rajasthan (<https://www.uniraj.ac.in>)
- IIT Jodhpur — Jodhpur, Rajasthan (<https://www.iitj.ac.in>)
- Central University of Rajasthan — Ajmer, Rajasthan (<https://www.curaj.ac.in>)
- Indian Institute of Science (IISc) — Bengaluru (<https://iisc.ac.in>)
- Tata Institute of Fundamental Research (TIFR) — Mumbai (<https://www.tifr.res.in>)
- IIT Kanpur — Kanpur (<https://www.iitk.ac.in>)

PRIVATE INSTITUTES

- Loyola College — Chennai
- St. Joseph's College — Bengaluru
- PSG College of Arts & Science — Coimbatore

ONLINE

- SWAYAM / NPTEL (Physics) — Online (<https://swayam.gov.in>)
- Coursera (Physics) — Online (<https://www.coursera.org>)
- Udemy (Physics) — Online (<https://www.udemy.com>)

FEES

Course fees range roughly from ₹80,000 to ₹5,00,000. Research scholars at IITs, IISc and TIFR receive fellowships. (Figures are indicative.)

SCHOLARSHIPS

- National Scholarship Portal (NSP) (<https://scholarships.gov.in>)
- Buddy4Study (<https://www.buddy4study.com>)
- Rajasthan SJE Scholarships (<https://sje.rajasthan.gov.in>)
- Vidya Lakshmi Education Loans (<https://www.vidyalakshmi.co.in>)

6 What the work is like

WHERE YOU WORK

Research laboratories, universities, electronics and electrical companies, the defence sector and the IT/data industry.

WORK CULTURE

Mainly office and laboratory work. Usually 5-6 days a week, 8-9 hours a day. Occasional overtime; part-time and contract roles also exist.

WHO HIRES

- | | |
|---------------------------------|---|
| • IITs, IISc and universities | • CSIR and DAE laboratories |
| • ISRO and DRDO | • Electronics and semiconductor companies |
| • Data science and IT companies | • Schools and colleges (teaching) |

DEMAND (2026)

A strong physics foundation opens opportunities in research, teaching, semiconductors, quantum technology and data science. Demand for skilled physicists remains steady.

7 Career growth

- 1 Junior Researcher
- 2 Physicist / Assistant Professor
- 3 Senior Scientist / Professor
- 4 Head of Department / Director

EARNINGS

Starting	₹40,000–60,000/माह
Mid level	₹80,000–1,20,000/माह
Senior level	₹1,70,000+/माह

Research scholars get fellowships; teachers and scientists are on government scales, while industry can pay more. Figures are indicative.

8 The good parts · The challenges

The good parts

- Work on the fundamental laws of nature
- Diverse paths across research, teaching and industry
- Growing opportunities in quantum, semiconductors and data

The challenges

- Long study (PhD) required for a research career
- Permanent academic posts are limited and competitive
- Progress can be slow; patience is essential

9 Real-life journeys

Ashoke Sen

Theoretical Physicist (String Theory); Fundamental Physics Prize Laureate

Ashoke Sen is one of India's leading string theorists, long based at the Harish-Chandra Research Institute, Allahabad. In 2012 he won the US\$3 million Fundamental Physics Prize and is admired for his simple lifestyle.

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

Indrani Bose

Physicist, Bose Institute, Kolkata

Indrani Bose is a senior physicist at the Bose Institute. Her research spans theoretical condensed-matter physics, statistical physics and biological physics, and she is a Fellow of the Indian Academy of Sciences.

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

10 Sources & further reading

1. Rajasthan Career Guidance Portal — <https://cg.rajasthan.gov.in/careerguidance/>
2. Tata Institute of Fundamental Research — <https://www.tifr.res.in>
3. JEST Examination — <https://www.jest.org.in>
4. CSIR-UGC NET — <https://csirnet.nta.ac.in>



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