



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

बायोमेडिकल इंजीनियर

Biomedical engineers combine medical science with engineering to design and maintain artificial limbs, implants and hospital equipment. It is a rising career in India's growing med-tech 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/eng-4603

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

Biomedical engineers combine medical science with engineering to design and maintain artificial limbs, implants and hospital equipment. It is a rising career in India's growing med-tech industry.

2 At a glance

Minimum qualification	12th (PCM/PCB) + B.Tech/B.E. in Biomedical
Work mode	In hospitals, labs and manufacturing units
Demand	Growing - government push to medical device manufacturing
Top earning	R&D/product head: Rs 2 lakh+/month

3 What you need

INTERESTS

- Interest in science and the human body
- Curiosity about how machines work
- Desire to help people

ABILITIES

- Attention to detail
- Problem-solving ability
- Working in teams

KEY SKILLS

- Combined grasp of biology and engineering
- Electronics and sensors
- Medical device design (CAD)
- Equipment repair and calibration
- Quality and regulatory standards (CDSCO)
- Basic data and software understanding

4 How to get there

- 1 Pass 10+2 with Physics, Chemistry and Maths/Biology.
- 2 Do B.Tech/B.E. in Biomedical Engineering via JEE Main/REAP.
- 3 Intern at a hospital or device company.
- 4 Optionally clear GATE for M.Tech or study abroad.
- 5 Start a job in a hospital, med-tech company or research institute.

MAIN EXAMS

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

5 Where to study

GOVERNMENT INSTITUTES

- IIT Jodhpur (Bioscience & Bioengineering) — Jodhpur, Rajasthan (<https://iitj.ac.in>)
- IIT Delhi (Centre for Biomedical Engineering) — New Delhi
- IIT Hyderabad — Hyderabad, Telangana
- NIT Raipur — Raipur, Chhattisgarh

PRIVATE INSTITUTES

- Manipal Institute of Technology — Manipal, Karnataka
- VIT Vellore — Vellore, Tamil Nadu
- SRM Institute of Science and Technology — Chennai, Tamil Nadu

ONLINE

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

FEES

Undergraduate course about Rs 25,000-2 lakh per year; postgraduate around Rs 22,000-1.3 lakh per year, varies by institute.

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

Hospitals, clinics, medical device companies, research institutes; biomedical departments in big Jaipur-Jodhpur hospitals.

WORK CULTURE

Usually 8-hour teamwork coordinating with doctors and technicians; sometimes longer. Opportunities exist for persons with disabilities.

WHO HIRES

- Large hospitals (AIIMS Jodhpur, SMS Jaipur)
- Medical device makers and startups
- Diagnostic lab chains
- GE HealthCare / Siemens Healthineers / Philips
- Research bodies (DRDO, CSIR)

DEMAND (2026)

Demand is rising in 2026 with Make in India and medical device parks; hospital expansion is also creating jobs.

7 Career growth

- 1 Field Service Technician
- 2 Biomedical Engineer/Service Manager
- 3 Project Engineer
- 4 Product Development Manager
- 5 R&D Director

EARNINGS

Starting	₹20,000-40,000
Mid level	₹50,000-1,00,000
Senior level	₹1,50,000-2,50,000+

Monthly pay, 2026 levels; varies by company and city, indicative.

8 The good parts · The challenges

The good parts

- Meaningful work tied to healthcare
- Fast growth of the med-tech sector
- Exposure to both engineering and medical worlds

The challenges

- Fewer core jobs in small towns
- Higher studies often needed for good roles
- Emergency calls possible in hospital duty

9 Real-life journeys

Myshkin Ingawale

Co-founder, Biosense Technologies

After seeing a mother die of anaemia in rural Maharashtra, Myshkin built TouchHB, a needle-free blood testing device. He shared the story of this Biosense invention on the TED stage.

CNN · <https://www.cnn.com/2012/09/16/opinion/ingawale-ted-health-care/index.html>

Nimmi Ramanujam

Professor of Biomedical Engineering, Duke University

Professor Nimmi, of Indian origin, developed the Pocket Colposcope for low-cost, painless cervical cancer screening. Working with institutes like AIIMS, her technology is reaching Indian women.

The Better India · <https://thebetterindia.com/167431/aiims-cervical-cancer-nimmi-ramanujam-india/>

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: Biomedical Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%ac%e0%a4%be%e0%a4%af%e0%a5%8b%e0%a4%ae%e0%a5%87%e0%a4%a1%e0%a4%bf%e0%a4%95%e0%a4%b2-%e0%a4%9c%e0%a5%88%e0%a4%b5%e0%a4%9a%e0%a4%bf%e0%a4%95%e0%a4%bf%e0%a4%a4%e0%a5%8d%e0%a4%b8%e0%a4%be/>
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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