



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

मैकेनिकल इंजीनियर

Mechanical engineers design, build and maintain machines, vehicles, engines and plants. It is one of the oldest and broadest branches of engineering.



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-4658

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

Mechanical engineers design, build and maintain machines, vehicles, engines and plants. It is one of the oldest and broadest branches of engineering.

2 At a glance

Minimum qualification	12th PCM + B.Tech/B.E. in Mechanical, or polytechnic diploma
Work mode	Office plus shop floor/site visits
Demand	Steady-high - new openings in EVs, defence and manufacturing
Top earning	Senior engineer/operations manager: Rs 2 lakh+/month

3 What you need

INTERESTS

- Interest in machines and vehicles
- Taking things apart and building them
- Liking for maths and physics

ABILITIES

- Logical and critical thinking
- Good communication and teamwork
- Patience for problem-solving

KEY SKILLS

- Engineering drawing and CAD (AutoCAD, SolidWorks)
- Manufacturing processes (CNC, welding, casting)
- Basics of EVs and automation
- Thermodynamics and machine design
- Maintenance and quality control
- Project and cost management

4 How to get there

- 1 Pass 12th with Physics, Chemistry, Maths (or do a polytechnic diploma after 10th).
- 2 Do B.Tech/B.E. in Mechanical Engineering via JEE Main/Advanced or REAP.
- 3 Intern in a workshop, auto or manufacturing company.
- 4 Join design, production or maintenance roles via campus placement.
- 5 Optionally clear GATE for M.Tech or PSUs (BHEL, NTPC).

MAIN EXAMS

- JEE Main / JEE Advanced
- REAP (Rajasthan)
- BITSAT
- GATE (M.Tech/PSU)

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>)
- MBM University — Jodhpur, Rajasthan (<https://www.mbm.ac.in>)
- CTAE (MPUAT) — Udaipur, Rajasthan (<https://www.mpuat.ac.in/>)
- Government Polytechnic Colleges — Districts of Rajasthan

PRIVATE INSTITUTES

- BITS Pilani — Pilani, Rajasthan (<https://www.bits-pilani.ac.in>)
- Manipal University Jaipur — Jaipur, Rajasthan (<https://jaipur.manipal.edu>)
- Mody University — Lakshmangarh, Sikar, Rajasthan
- GITS Udaipur — Udaipur, Rajasthan

ONLINE

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

FEES

About Rs 20,000-1 lakh per year in government colleges; Rs 1-3 lakh per year in private ones. Diploma is a cheaper route.

SCHOLARSHIPS

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

6 What the work is like

WHERE YOU WORK

Automobile and machine factories, power plants, railways, defence, design and consulting firms, research institutes.

WORK CULTURE

Office work with shop floor/site visits; safety rules must be followed. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|---|------------------------------|
| • Tata Motors and Maruti Suzuki | • L&T |
| • BHEL, NTPC, HAL | • Indian Railways and metros |
| • Cement and mining companies (Rajasthan) | • EV and defence startups |

DEMAND (2026)

Demand is steady-high in 2026 due to Make in India, EVs and defence production; Rajasthan's cement, mining and auto-parts industries also offer openings.

7 Career growth

- 1 Graduate trainee engineer
- 2 Mechanical engineer
- 3 Senior mechanical engineer
- 4 Operations/plant manager
- 5 General manager / technical director

EARNINGS

Starting	₹20,000-35,000
Mid level	₹45,000-90,000
Senior level	₹1,20,000-2,50,000+

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

8 The good parts · The challenges

The good parts

- Wide options across every industry
- Routes to government jobs (railways, PSUs)
- Entry possible even via diploma

The challenges

- Relatively low starting salary
- Physical work at factories/sites
- High competition in core sector

9 Real-life journeys

Lila Poonawalla

Among India's first women mechanical engineers; former chairperson, Alfa Laval India

From a modest family, Lila studied mechanical engineering when girls rarely entered the field. Starting as a trainee, she rose to chairperson of Alfa Laval India, won the Padma Shri, and her foundation now gives scholarships to thousands of girls.

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

Arunachalam Muruganantham

Machine Inventor, Creator of the Low-cost Sanitary Pad Machine

Born into a poor weaver family in Tamil Nadu, Arunachalam Muruganantham dropped out of school and worked as a workshop helper. Enduring years of ridicule, he engineered a simple low-cost machine that makes affordable sanitary pads. Today over 250 of his machines run in 1,300 villages, giving women both health and livelihoods — proof of what hands-on mechanical thinking can achieve.

Slate · <https://slate.com/human-interest/2014/03/arunachalam-muruganantham-the-man-who-created-his-own-sanitary-pad-and-made-the-period-safe-for-the-women-of-india.html>

10 Sources & further reading

1. Rajasthan Career Guidance: Mechanical Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%ae%e0%a5%88%e0%a4%95%e0%a5%87%e0%a4%a8%e0%a4%bf%e0%a4%95%e0%a4%b2-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8%e0%a4%bf%e0%a4%af%e0%a4%b0-mechanical-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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