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करियर मार्गदर्शन पोर्टल • Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट • CAREER SHEET

एयरोनॉटिकल इंजीनियर

Aeronautical engineers design, build and test aircraft, helicopters, drones and their engines. It is an exciting career in India's growing aviation, defence and space sectors.



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-4593

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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

Aeronautical engineers design, build and test aircraft, helicopters, drones and their engines. It is an exciting career in India's growing aviation, defence and space sectors.

2 At a glance

Minimum qualification	12th PCM + B.Tech in Aeronautical/Aerospace
Work mode	Office + design lab/hangar; full time
Demand	High - in defence manufacturing, drones and space startups
Top earning	Senior engineer: Rs 1.5-3 lakh+/month

3 What you need

INTERESTS

- Knowing how aircraft and machines work
- Solving maths-physics problems
- Building, assembling things and drawing

ABILITIES

- Sharp eye for detail
- Working precisely in a team
- Analytical and logical thinking

KEY SKILLS

- Aerodynamics and flight mechanics
- Understanding of aircraft structures and materials
- Mathematics and computer programming
- CAD/simulation software (CATIA, ANSYS)
- Propulsion/engine systems
- Following safety rules and quality standards

4 How to get there

- 1 Pass 10+2 with Physics, Chemistry, Maths.
- 2 Clear JEE Main/Advanced or REAP for a B.Tech in Aeronautical/Aerospace.
- 3 Do internships at HAL, DRDO or MRO companies.
- 4 Take GATE for M.Tech, or ISRO/DRDO recruitment exams.
- 5 Keep adding skills in new areas like drones and avionics.

MAIN EXAMS

- JEE Main / JEE Advanced
- REAP (Rajasthan)
- GATE (Aerospace)
- ISRO/DRDO recruitment exams

5 Where to study

GOVERNMENT INSTITUTES

- Rajasthan Technical University (RTU) — Kota, Rajasthan
- IIST (Indian Institute of Space Science and Technology) — Thiruvananthapuram, Kerala (<https://www.iist.ac.in>)
- IIT Madras — Chennai, Tamil Nadu
- IIT Kanpur — Kanpur, Uttar Pradesh
- Punjab Engineering College — Chandigarh

PRIVATE INSTITUTES

- Manipal Institute of Technology — Manipal, Karnataka
- Dayananda Sagar College of Engineering — Bengaluru, Karnataka
- Sathyabama Institute of Science and Technology — Chennai, Tamil Nadu

ONLINE

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

FEES

About Rs 50,000-2 lakh per year in government institutes and Rs 1.5-4 lakh per year in private ones; 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

HAL, ISRO, DRDO, Indian Air Force, airline maintenance centres and drone/space startups; from design offices to hangars and test ranges.

WORK CULTURE

Full-time work, about 40 hours a week; overtime is common near project deadlines. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|--|--|
| • Hindustan Aeronautics Limited (HAL) | • ISRO / DRDO |
| • Indian Air Force and Ministry of Defence | • Air India / IndiGo (MRO) |
| • Boeing / Airbus / Tata Advanced Systems | • Drone and space startups (Skyroot, Agnikul etc.) |

DEMAND (2026)

In 2026 demand is rising due to defence self-reliance, new airports, the drone policy and private space firms; competition is stiff as seats are limited.

7 Career growth

- 1 Graduate Trainee Engineer
- 2 Aircraft/Design Engineer
- 3 Senior Engineer
- 4 Lead Engineer / Project Manager
- 5 Chief Designer / Programme Director

EARNINGS

Starting	₹25,000-50,000
Mid level	₹60,000-1,20,000
Senior level	₹1,50,000-3,00,000+

Monthly pay; differs across government bodies and private firms. 2026 levels, indicative.

8 The good parts · The challenges

The good parts

- Pride of contributing to national defence and space missions
- Good pay and opportunities abroad too
- Fast-growing openings in drone-space startups

The challenges

- Limited number of core jobs; tough competition
- High responsibility - even small errors are costly
- Long hours near project deadlines

9 Real-life journeys

Kalpana Chawla

Aeronautical engineer and NASA astronaut

From Karnal, Haryana, Kalpana became the first woman to earn an aeronautical engineering degree from Punjab Engineering College. Studying further, she reached NASA and made history as the first woman of Indian origin in space.

Encyclopaedia Britannica · <https://www.britannica.com/biography/Kalpana-Chawla>

Kota Harinarayana

Programme director and chief designer of the Tejas fighter programme

Schooled in a small Odisha town, Kota Harinarayana studied at IIT and IISc and went on to lead India's indigenous Tejas fighter aircraft. A Padma Shri awardee, he inspires young engineers.

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

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
- Artificial Intelligence Engineer

11 Sources & further reading

1. Rajasthan Career Guidance: Aeronautical Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%8f%e0%a4%af%e0%a4%b0%e0%a5%8b%e0%a4%a8%e0%a5%89%e0%a4%9f%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-aeronautical-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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