



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

कंप्यूटर हार्डवेयर इंजीनियर

A computer hardware engineer researches, designs, develops and tests computer systems and their components—processors, circuit boards, memory and devices. It blends electronics with computer science and drives new computer...



Scan for everything on this career

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

career.gsssjethantri.in/#/career/computer-hardware-engineer

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 computer hardware engineer researches, designs, develops and tests computer systems and their components—processors, circuit boards, memory and devices. It blends electronics with computer science and drives new computer technology forward.

2 At a glance

Minimum qualification	10+2 Science (PCM) + ECE/EEE/CS degree
Duration	4-yr B.Tech (+ optional master's)
Starting salary	₹25,000–45,000/month
Work Field	Semiconductors, electronics manufacturing, IT, research

3 What you need

INTERESTS

- Interest in electronics and computers
- Curiosity to take apart and understand machines
- Enjoy analysing problems and circuits

ABILITIES

- Analytical and mathematical thinking
- Attention to detail
- Teamwork and patience

KEY SKILLS

- Digital electronics and circuit design
- Computer architecture
- PCB design
- Embedded systems
- VLSI / chip-design basics
- Hardware testing and debugging
- C and HDL (Verilog)

4 How to get there

- 1 Complete 10+2 in Science (PCM)
- 2 Do a B.Tech/B.E. in ECE/EEE/CS
- 3 Learn embedded systems and VLSI basics
- 4 Gain experience as a hardware engineer
- 5 Optional: a master's in a related field
- 6 Progress to validation/senior design engineer

MAIN EXAMS

- JEE Main / JEE Advanced (for B.Tech)
- REAP – Rajasthan Engineering Admission
- GATE (for M.Tech and PSU jobs)

5 Where to study

GOVERNMENT INSTITUTES

- MNIT Jaipur — Jaipur, Rajasthan
- IIT Jodhpur — Jodhpur, Rajasthan
- MBM University — Jodhpur, Rajasthan
- Government Engineering College — Bikaner / Ajmer, Rajasthan

PRIVATE INSTITUTES

- Manipal University Jaipur — Jaipur, Rajasthan
- BITS Pilani — Pilani, Rajasthan
- VIT Vellore — Vellore

ONLINE

- NPTEL SWAYAM – Computer Hardware — Online (Govt of India)
- Udemy – Computer Hardware — Online (<https://www.udemy.com/topic/computer-hardware/>)

FEES

Roughly ₹45,000 in government institutes up to ₹10,00,000 in private ones. Online courses are cheaper.

SCHOLARSHIPS

- National Scholarship Portal (NSP) (<https://scholarships.gov.in>)
- Buddy4Study (<https://www.buddy4study.com>)
- Vidya Lakshmi Education Loan (<https://www.vidyalakshmi.co.in>)

6 What the work is like

WHERE YOU WORK

Semiconductor and electronic-device manufacturing, computer-system and design services, IT and research institutes.

WORK CULTURE

Work in both labs and offices; design and testing in teams; 5-6 days a week, 8-9 hours, shifts apply. Opportunities exist for persons with disabilities.

WHO HIRES

- Intel / AMD / Nvidia / Qualcomm
- Bosch / Texas Instruments
- L&T / Tata Elxsi
- ISRO / DRDO (government research)
- Semiconductor startups

DEMAND (2026)

In 2026 India's semiconductor mission and push for chip manufacturing have created strong demand for hardware and chip-design engineers; it is a specialised, well-paid field.

7 Career growth

- 1 Hardware Engineer
- 2 Validation Engineer
- 3 Senior Hardware Design Engineer

EARNINGS

Starting	₹25,000–45,000/माह
Mid level	₹60,000–1,00,000/माह
Senior level	₹1,67,000+/माह

Pay is best in semiconductor and chip-design firms; it rises quickly with experience and specialisation.

8 The good parts · The challenges

The good parts

- Work on cutting-edge technology
- Growing opportunities from India's chip mission
- A blend of electronics and CS

The challenges

- Needs deep technical knowledge and constant learning
- Projects can be complex and long
- Constant pressure for precision

9 Real-life journeys

Vinod Dham

Microprocessor engineer, 'Father of the Pentium Chip'; former VP, Intel

Vinod Dham earned an electrical-engineering degree from Delhi College of Engineering and, with modest means, moved to the US to complete an MS at the University of Cincinnati. At Intel he led the Pentium processor development team and co-invented the company's first flash-memory technology—earning him the title 'Father of the Pentium Chip'.

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

Meenakshi Chatterjee

Senior Hardware Engineer, Twitter; BITS Pilani + UCLA

Meenakshi Chatterjee earned a bachelor's in electrical & electronics engineering and a master's in physics from BITS Pilani, plus a master's in electrical engineering from UCLA. As a Senior Hardware Engineer she helps run Twitter's huge data centre, and was named among 'The 25 Most Powerful Women Engineers in Tech'.

Feminism In India · <https://feminisminindia.com/2017/05/16/top-women-engineers-india/>

10 Sources & further reading

1. Rajasthan Govt Career Guidance – Computer Hardware Engineer — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%95%e0%a4%82%e0%a4%aa%e0%a5%8d%e0%a4%af%e0%a5%82%e0%a4%9f%e0%a4%b0-%e0%a4%b9%e0%a4%be%e0%a4%b0%e0%a5%8d%e0%a4%a1%e0%a4%b5%e0%a5%87%e0%a4%af%e0%a4%b0-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8/>
2. India Semiconductor Mission — <https://ism.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.

career.gssjethantri.in