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करियर मार्गदर्शन पोर्टल • Career Guidance Portal

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करियर शीट • CAREER SHEET

सेमीकंडक्टर फैब तकनीशियन

A semiconductor fab technician runs machines, monitors production and checks quality inside the cleanrooms of chip-making and chip-packaging plants. Under the India Semiconductor Mission, new plants at Sanand (Gujarat), Dholera...



Scan for everything on this career

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

career.gsssjethantri.in/#/career/semiconductor-technician

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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)



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वनिता कुमारी

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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 semiconductor fab technician runs machines, monitors production and checks quality inside the cleanrooms of chip-making and chip-packaging plants. Under the India Semiconductor Mission, new plants at Sanand (Gujarat), Dholera and Jagiroad (Assam) are hiring thousands of ITI and diploma youth. With these factories going live in 2026, this is one of India's newest careers with a strong future.

2 At a glance

Minimum qualification	ITI (electronics) or polytechnic diploma after Class 10
Work mode	Shift duty in factory cleanrooms - plants like Sanand and Jagiroad
Demand	Rising fast - 6+ new plants and thousands of new hires
Top earning	Up to ₹12-15 lakh/year at senior technician / engineer level

3 What you need

INTERESTS

- Opening up, assembling and understanding machines and electronics
- Curiosity about chips, mobiles and new technology
- Enjoying clean, precise, rule-based work

ABILITIES

- Sustained attention to fine detail
- Working with discipline in shift-based teams
- Patiently following standard procedures step by step

KEY SKILLS

- Electronics basics - circuits, soldering, measuring instruments
- Cleanroom discipline - special suits, hygiene and safety rules
- Computer use and English good enough to read technical instructions
- Operating and setting automated machines and spotting faults
- Quality checking and recording production data
- Problem-solving mindset and quickly learning new machines

4 How to get there

- 1 Pass Class 10 with a good grip on maths and science.
- 2 Route 1: after Class 10, do a 2-year Electronics Mechanic (or Fitter, Instrument Mechanic) trade at a government ITI. Route 2: do a 3-year polytechnic diploma in Electronics / Electrical / Mechatronics.
- 3 Optionally add specialised semiconductor training - like the 12-month programme at the Gandhinagar institute, with full tuition waiver for ITI/diploma holders.
- 4 Apply to apprenticeships and walk-in drives at Micron, CG Semi, Kaynes (Sanand) and Tata Electronics (Jagiroad) - starting stipends of ₹12,000-18,000/month.
- 5 Complete company training after selection - many young hires have even been trained in Malaysia and Singapore.
- 6 Grow from operator to senior technician and shift lead; continue studies (diploma/engineering degree) to reach engineer grade.

MAIN EXAMS

- ITI and polytechnic admission is by Class 10 marks merit; companies select through aptitude tests and interviews

5 Where to study

GOVERNMENT INSTITUTES

- NIELIT Ajmer — Ajmer, Rajasthan (<https://www.nielit.gov.in/ajmer/index.php>)
- Government Polytechnic Colleges (DTE Rajasthan) — Across Rajasthan including Jaipur and Jodhpur (<https://dte.rajasthan.gov.in/>)
- Government ITIs - Electronics Mechanic trade — Almost every district of Rajasthan

PRIVATE INSTITUTES

- NAMTECH - iPTP Semiconductor programme — Gandhinagar, Gujarat (<https://www.namtech.ac/programs/international-professional-technologist-program-semiconductor>)
- Bhartiya Skill Development University — Jaipur, Rajasthan

ONLINE

- SWAYAM / NPTEL - free electronics and VLSI courses — Online (<https://swayam.gov.in/>)
- Skill India Digital — Online (<https://www.skillindiadigital.gov.in/>)

FEES

Government ITI fees are very low (about ₹1,000-12,000/year) and government polytechnic diplomas cost about ₹5,000-20,000/year. Specialised semiconductor programmes can be costly, but ITI/diploma holders get scholarships like 100% tuition waivers.

SCHOLARSHIPS

- National Scholarship Portal (NSP) (<https://scholarships.gov.in/>)
- NAMTECH iPTP - 100% tuition waiver for ITI/Diploma holders (<https://www.namtech.ac/programs/international-professional-technologist-program-semiconductor>)

6 What the work is like

WHERE YOU WORK

ATMP/OSAT plants at Sanand (Gujarat), the Dholera fab, Jagiroad (Assam) and units near Bengaluru - work happens in dust-free, air-conditioned cleanrooms wearing special suits. Most plants are outside Rajasthan for now, so relocation is needed (Sanand is not far from the Rajasthan border).

WORK CULTURE

Rotating shifts in 24x7 factories with strict discipline and safety rules. Large companies provide clean workplaces, canteens, transport and hostel facilities; women's hiring is being specially encouraged.

WHO HIRES

- Micron (Sanand, Gujarat) - memory chip assembly and testing
- CG Semi (Sanand, Gujarat) - OSAT plant

- Kaynes Semicon (Sanand, Gujarat) - chip packaging and testing
- SCL Mohali - the government semiconductor laboratory
- Tata Electronics - Dholera fab and Jagiroad (Assam) plant
- HCL-Foxconn joint unit (Jewar, Uttar Pradesh)

DEMAND (2026)

In 2026 the Micron, Kaynes and CG Semi plants at Sanand have begun production, and Tata's Dholera fab and Jagiroad plant are heading to production in 2026-27. Micron alone plans up to 5,000 direct jobs, Tata has selected over 1,800 young women from Assam as technicians, and industry estimates project a need of lakhs of skilled semiconductor workers this decade.

7 Career growth

- 1 Apprentice / trainee operator (on stipend)
- 2 Machine operator / fab technician
- 3 Senior technician / line specialist (in charge of a station)
- 4 Shift supervisor / process technician
- 5 Engineer or production manager (with further study)

EARNINGS

Starting	₹1.5–3 लाख/वर्ष
Mid level	₹3.5–7 लाख/वर्ष
Senior level	₹8–15 लाख/वर्ष

Apprenticeships pay ₹12,000-18,000/month stipend (often with free food and stay); diploma trainees get ₹2.5-4.5 lakh/year. Pay rises fast at engineer grade with experience and further study.

8 The good parts · The challenges

The good parts

- A new field backed by a national mission - stable factory jobs with a long future
- Entry straight from ITI/diploma - companies train you themselves, some even abroad in Malaysia
- Special hiring drives, hostels and a safe work environment for women

The challenges

- No plants in Rajasthan yet - you must move to Gujarat, Assam or Karnataka
- Rotating shifts including nights and strict cleanroom discipline
- Early apprentice pay is modest; higher posts need further study

9 Real-life journeys

Poonam Kumari

Machine operator, CG Semi plant (Sanand)

Poonam Kumari, a tribal young woman from Giridih district in Jharkhand, completed her ITI studies while living with her mother after her father's death. A girl who had never travelled outside Jharkhand was sent by her company to Malaysia for training - taught in Hindi, she learnt to run chip-packaging machines. At the Sanand plant's inauguration in July 2026, the Prime Minister openly praised her confidence.

IANIS (Prokerala) · <https://www.prokerala.com/news/articles/a1784095.html>

Ritesh Ram

Molding station in-charge, Kaynes Semicon (Sanand)

Ritesh Ram, a diploma holder from Government Polytechnic, Diu, today runs the molding station at Kaynes Semicon (Sanand), India's new chip-packaging plant, where chips get their protective coating. With just a diploma and company training - no big degree - he became part of the production team at India's first semiconductor cluster. His story shows small-town polytechnic students can find a place in the chip industry.

ThePrint · <https://theprint.in/the-fineprint/giant-stride-with-micron-precision-inside-indias-1st-semiconductor-chip-packaging-cluster-in-gujarat/2929084/>

Shivani Uikey**Machine operator, CG Semi plant (Sanand)**

Shivani Uikey from Balaghat district, Madhya Pradesh, chose a semiconductor plant job after ITI and received special training in Malaysia after selection. She now operates chip-assembly machines at the CG Semi plant in Sanand. In her words - together, we are going to create history.

ANI (NewKerala) · <https://www.newkerala.com/news/a/going-create-history-say-women-workers-cg-semi-210.htm>

10 Sources & further reading

1. India Semiconductor Mission (ISM) official portal — <https://www.ism.gov.in/>
2. Micron India careers - Sanand facility — <https://in.micron.com/about/careers>
3. Tata Electronics - semiconductor assembly and test (Jagiroad) — <https://www.tataelectronics.com/semiconductor-assembly-and-test>
4. NAMTECH semiconductor technologist programme (for ITI/diploma) — <https://www.namtech.ac/programs/international-professional-technologist-program-semiconductor>

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