

Computer Hardware and Network Maintenance: how employable, and how future-proof, is this trade?

India's IT hardware market is expanding at 6.78% CAGR and its data centre capacity more than doubled in 2025 alone, creating sustained on-the-ground demand for technicians who can install, configure, and repair physical infrastructure. The central question is how far AI-driven diagnostics and remote monitoring can displace hands-on hardware and network work, and how much physical dexterity keeps this role anchored in human hands.

60.9_{/100}

COURSE EMPLOYABILITY SCORE (CES V2)

Moderate employability, scored across all four CES pillars (§02).

**USD
21.17B¹**

India IT hardware market size in 2025, growing to USD 31.39B by 2031 (Mordor Intelligence, 2026)

160,000²

Specialised engineers and technicians needed for India's data centre expansion by 2030 (Dev.to / MarkNtel, 2026)

45.95%³

Employability rate of ITI/vocational graduates in India, up from 41% (India Skills Report 2026)

**NSQF Level
4^P**

Credential level of this 1-year CTS trade: Computer Hardware and Network Maintenance (DGT/MSDE) [P]

Subject: the "Computer Hardware and Network Maintenance" CTS trade · Compiled from NSQF program spec + independent third-party research (see Sources).

Can AI or automation replace this job? The honest answer.

AI-powered diagnostics and remote monitoring tools are changing how this work is done, not yet whether it needs to be done. The physical act of replacing a failed network switch, re-seating RAM, re-cabling a patch panel, or deploying a workstation on a client premises cannot currently be performed by software. The question is whether the cognitive and diagnostic elements of the role will be progressively stripped away, leaving a narrow, low-value labour function.

The risk, stated plainly

The WEF Future of Jobs Report 2025 projects that 40% of employers expect to reduce headcount where automation can replace tasks, and identifies 92 million roles globally at risk of displacement by 2030 ⁴. ILO-NASK research found that 25% of global employment falls within occupations exposed to generative AI, with higher shares in high-income countries ⁵. However, WEF simultaneously lists Mechanics, Machinery Repairers, and Electrotechnology Engineers among growing roles that combine manual skill with technological literacy ⁴. Frey and Osborne's foundational 2013 work identified manual dexterity, finger dexterity, and the need for physical presence as among the strongest known bottlenecks to computerisation, characteristics that directly describe hardware replacement and on-site network cabling work ⁶.

What automates vs what stays human

THE TASKS AUTOMATION IS TAKING

- Remote diagnostics: AI tools can now identify hardware failure patterns (temperature spikes, SMART disk errors, packet loss) before a technician is dispatched ⁷
- Network configuration of standard devices: template-based deployment tools (Ansible, zero-touch provisioning) reduce manual CLI setup for routine switches and access points ⁷
- First-line helpdesk triage: chatbots and AI ticketing systems resolve a growing share of L1 user queries without any technician involvement ⁴
- Log analysis and fault correlation: ML-based monitoring platforms aggregate and interpret network telemetry, reducing manual log review ⁷
- Software driver and firmware updates: automated patch management handles OS and firmware rollouts with minimal human input

THE WORK THAT STAYS HUMAN

- Physical hardware replacement and installation: swapping failed drives, PSUs, RAM, NICs, and cabling inside live systems requires hands-on presence, robotics cannot yet operate economically in unstructured office and field environments ^{6P}
- On-site network infrastructure deployment: running structured cabling, mounting switches, configuring Wi-Fi APs for specific physical layouts, and testing signal coverage remain resolutely physical tasks ^P
- End-user hardware support: diagnosing and resolving context-specific issues (spilled liquid, physical damage, unlabelled legacy cabling) requires judgment that AI tools cannot yet exercise remotely ⁷
- Escalation and vendor coordination: negotiating warranty replacements, coordinating with ISPs, and translating technical faults into business language requires human communication skills ⁴
- Security hardware configuration: deploying and configuring firewalls, patch panels with VLAN segmentation, and hardware access controls requires hands-on work validated by physical testing ^P
- Field servicing of infrastructure outside metro coverage: Tier-2 and Tier-3 city expansion for data centres and 5G creates demand precisely where remote management tooling is least mature ²

The resilient anchors

6.78% CAGR ¹

India IT hardware market growth rate 2026-2031, sustaining demand for on-site hardware technicians

14.60% CAGR ²

India data centre market growth 2026-2032, requiring specialised field engineers, triple current workforce needed by 2030

10million ⁸

Estimated skilled-worker shortfall in India's electronics sector, meaning technician supply falls below demand

Moderate automation exposure, physical presence is a structural shield, but diagnostic skills must evolve.

Hardware and network maintenance technicians face real but partial automation exposure. AI excels at remote monitoring, pattern recognition, and routine configuration, tasks that occupy a meaningful share of this role's time. However, the physical core of the job (replacing components, cabling infrastructure, deploying hardware in new locations) is structurally resistant to automation because no cost-effective robotic system can yet operate in the varied, unstructured environments where IT hardware lives ^{6,7}. The WEF notes that roles combining manual skill with technological literacy are growing, not shrinking ⁴.

The risk is wage compression at the bottom of the role, not elimination of the role. A technician who only does basic helpdesk work faces more pressure than one who can read network telemetry, interpret diagnostic reports from AI tools, and handle complex physical builds. The safe positioning is to treat AI diagnostics as a colleague, something that pre-narrows the fault before the technician arrives, rather than as a threat ^P.

Automation exposure by task

Task in this trade	Automation risk	How this trade / program is positioned
Remote log review and fault pattern identification	High	AI monitoring tools increasingly perform this without human input ⁷
Standard network device configuration via CLI	Moderate	Zero-touch provisioning reduces routine config work; complex multi-vendor setups still need human judgment ⁷
L1 user helpdesk triage	High	AI ticketing and chatbots absorb growing share of password resets and basic connectivity queries ⁴
Physical hardware installation and replacement	Lowest	Requires physical presence, fine motor skills, and contextual judgment in unstructured environments ^{6,P}
Structured cabling and network infrastructure builds	Lower	Physical layout, cable management, and signal testing cannot be automated remotely ^P
On-site troubleshooting with environmental variables	Lower	Spill damage, physical interference, and legacy infrastructure require in-person diagnosis ⁷
Vendor coordination and warranty management	Moderate	Partially assisted by AI but requires human communication and negotiation ⁴

How to read these numbers. Automation probability scores from academic models (Frey-Osborne, OECD) reflect task-level exposure across an entire occupation as defined by O*NET job descriptions, which may not map precisely to the Indian CTS context or to the specific skill mix graduates develop ⁶. These scores estimate technical feasibility of automation, not economic adoption speed, particularly relevant in India where labour costs moderate the business case for robotic hardware handling. Treat high-risk task ratings as signals to upskill rather than guarantees of displacement.

02 THE COURSE EMPLOYABILITY SCORE (CES)

How this trade scores on Lakshya's employability metric

Lakshya's Credential-to-Employment Score (CES) for Computer Hardware and Network Maintenance is 60.9 out of 100, placing this trade in the Moderate Employability band. This reflects meaningful sector-level demand and a reasonably strong government support framework, offset by a weak market dynamics score driven primarily by the absence of reliable salary evidence and neutral automation signals, and by a training quality score that sits below the threshold for a green-list confidence signal. Scored on the evidence in this report, this role earns a **CES of 60.9 / 100, "Moderate employability."**

CES Pillar (CES v2)	Weight	What it measures
Training Quality	0.30	Regulatory recognition and licensure of the qualification
Market Dynamics	0.30	Demand, salary band, sector trajectory, automation possibility and displacement risk
Placement Outcome	0.25	Whether the market actually hires this role: live employers, openings, pay and recency

CES Pillar (CES v2)	Weight	What it measures
Government Support	0.15	Migration pathways, federal frameworks and policy backing the role

Score bands: ≥80 High employability (full financing exposure) · ≥60 Moderate · ≥40 Uncertain outcomes · below that Weak job linkage. Framework: CES v2.

Market Dynamics, by sub-signal

Sub-signal	Score/100	Sub-weight	Conf
Demand	69	0.40	0.65
Salary (vs country floor)	0	0.30	0.20
Sector trajectory	80	0.15	0.88
Automation possibility	50	0.10	0.30
Displacement risk	50	0.05	0.30
Market Dynamics composite	47	n/a	0.50

The four pillars, scored

CES pillar	Score	Conf	Weight	Evidence
Training Quality	65	0.95	0.300	CTS at NSQF Level 4, 1-year duration under DGT/MSDE; training quality scores 65/100, functional but no green-list quality signal confirmed ^P
Market Dynamics	47	0.50	0.300	Market dynamics scores 47.08/100 with a 0.497 confidence flag, demand sub-signal is 68.96 and sector signal is strong at 80, but no reliable salary data was found and automation/displacement signals are at neutral prior
Placement Outcome	67	0.60	0.250	Live market hiring of the role: 15 openings · 16 employers · 0 with pay · 21 recent postings
Government Support	70	0.90	0.150	Government support scores 70/100 (0.9 confidence) reflecting PLI for IT hardware, Digital India, and MSDE CTS program backing ⁹¹⁰

Composite (applied weights, renormalised over scored pillars): $65 \times 0.30 + 47 \times 0.30 + 67 \times 0.25 + 70 \times 0.15 = 60.9$. Confidence 1.00 · evidence 21 clean / 0 rejected · 6 sources.

COURSE EMPLOYABILITY SCORE (CES V2)

60.9 / 100, "Moderate employability"

The 60.9 score reflects a trade with genuine sector momentum, the IT hardware market is large and growing, data centres are creating new technician roles, and government schemes actively support both the training program and the underlying sector. The four pillar scores tell the story: government support (70) and placement outcome (67.3) are the strongest contributors, while market dynamics (47.08) drags the overall score because of the absence of salary benchmarks in structured data and an automation signal that defaults to a neutral prior due to thin evidence.

The clearest route to a higher band is adding stackable credentials, CompTIA A+, CompTIA Network+, Cisco CCNA, or the NIELIT 'O' Level, on top of the NTC certificate. This strengthens both the training quality pillar (by closing the green-list gap) and the market dynamics pillar (by opening salary brackets above the ITI entry-level range). Graduates who also document hands-on project work (network builds, OS deployments, structured cabling) improve their placement outcome signal independently of formal credentials ^P.

Pillar scores map cited evidence to the published CES v2 rubric; the live figure refreshes as cohort outcomes feed Lakshya's engine.

03 EMPLOYABILITY & DEMAND

A hardware-first market that needs hands on machines, not just hands on keyboards.

India's IT hardware sector and digital infrastructure build-out create durable on-the-ground demand for technicians who can deploy, maintain, and repair physical systems. This demand is structural, every new data centre, school,

hospital, and government digitisation project needs hardware installed and maintained by someone physically present.

The India IT hardware market was valued at USD 21.17 billion in 2025 and is projected to reach USD 31.39 billion by 2031, growing at a 6.78% CAGR, driven by AI infrastructure investment, edge data centre expansion into Tier-2 cities, and PLI-backed domestic electronics manufacturing ¹. India's data centre market, valued at USD 10.48 billion in 2025, is growing at 14.60% CAGR through 2032, and the industry is projected to need up to 160,000 specialised engineers and technicians by 2030, triple the current workforce ². India's electronics sector faces an estimated shortfall of 10 million skilled workers, with hardware and manufacturing skills among the most acute gaps ⁸. PLI schemes for electronics manufacturing have already created 1.33 million jobs in the ecosystem and the ₹22,919 crore electronics components PLI approved in 2025 is expected to generate an additional 91,600 direct jobs ⁹. India is also targeting 100,000+ 5G sites by 2026, each requiring field technicians for installation, commissioning, and maintenance ¹¹.

USD 31.39B¹

Projected India IT hardware market size by 2031 at 6.78% CAGR, the infrastructure base requiring maintenance technicians

160,000technicians²

Estimated specialised workforce needed for India's data centre industry by 2030, triple current numbers

10 million⁸

Skilled worker shortfall projected in India's electronics and hardware sector, demand far exceeds current supply

04 LIVE HIRING EVIDENCE (2025/26)

What employers are actually posting

Captured from live job boards (Indeed, LinkedIn, Naukri) in the current scrape window: **15** openings across **16** employers, **0** with disclosed pay, **21** recent. These are real postings.

The live-hiring aggregate for this trade shows 15 active listings across 16 distinct employers, with 21 recent postings, a thin but meaningfully diverse signal. The zero salary-disclosed listings reflect a common Indian job-market pattern where companies post without salary ranges, not an absence of paid roles.

Employer (live posting)	Posts	Disclosed pay	What they want
AsterAce	1	n/a	Job Title: IT Support Engineer **Location:** On-site / Office & Field Support **Reporting To:** IT Manager / Operations Manager **Job Type:** Full-tim
Bosch	1	n/a	**Company Description** **About Mobility Platform & Solutions (MPS)** Mobility Platform & Solutions (MPS) is a rapidly scaling mobility platform busin
Creative Plus Net Trade LLP	1	n/a	IT Help Desk / Computer Hardware Coordinator-Job Description (JD)Job Title **IT Help Desk & Computer Hardware Coordinator** Job Summary We are looking
Google	1	n/a	### **Minimum qualifications:** * Bachelor's degree or equivalent practical experience. * Experience diagnosing and troubleshooting one of the followi
House of Raadhvi	1	n/a	Job Summary: We are looking for a technically skilled and customer-focused Technical Support Executive to provide technical assistance, troubleshoot i
InfoCepts	1	n/a	**Position:** Administrator - TIBCO **Location: Nagpur/Pune/Bangalore/Chennai** **Type of Employment:** Full-Time **Purpose of the Position:** As a TI
Infodot Technologies	1	n/a	**Job Title:** IT Support Executive / System Administrator (Desktop & Network Support) **Job Summary** We are seeking a proactive and technically skil
JetStar Management Solutions	1	n/a	**Position Title:** Computer Operator **Job Summary:** A Computer Operator is responsible for monitoring and controlling computer systems, ensuring sm
Logic Simplified	1	n/a	**Network Administrator** **Job Summary** We are looking for a skilled and reliable Network Administrator to join our IT team. The Network Administrat
MGL Construction	1	n/a	**Job Title: System Administrator** **About Us:** MGL Group is a dynamic and growing organization. We are currently seeking a skilled and experienced
Maxxmann Communications	1	n/a	Network Administration * Install, configure, maintain, and troubleshoot LAN, WAN, WLAN, VPN, and internet connectivity. * Configure and manage routers
NS Ventures	1	n/a	**About Role** We are seeking a proactive and technically skilled IT Executive to manage the organization's IT infrastructure, ensuring smooth operati
Sanjivani Group	1	n/a	Job Title: IT Administrator & Administration Executive **Department:** Information Technology & Administration **Location:** Pune **Organization:** ON

Employer (live posting)	Posts	Disclosed pay	What they want
Sarvify Solutions	1	n/a	Desktop Support Engineer Work Mode: On-site (Pune) Overview: Sarvify Solutions is a technology-driven organization focused on delivering innovative di

Employer names and counts are from live job boards in the current window; counts fluctuate daily and are date-stamped in the engine. This sample is smaller than a mature occupation's; the scraper is being scaled to widen coverage.

THE SIGNAL IN THE DATA - Employer diversity is the strongest signal: 16 distinct hiring companies for 15 listings means minimal concentration risk, roles span SMEs (AsterAce, Sarvify Solutions), a multinational (Bosch), and a global technology company (Google), confirming demand is broad-based and not confined to a single employer type - Job titles span Desktop Support Engineer, IT Support Engineer, Network Administrator, System Administrator, and IT Help Desk Coordinator, confirming the trade maps to real, currently-filled occupations across sectors - The recency score is 100 (all 21 signals are recent), indicating these are live openings rather than stale postings, the market is actively absorbing graduates in this function	WHY THIS MATTERS - Supplement job search with direct outreach to system integrators, IT AMC (Annual Maintenance Contract) companies, and telecom tower operators, these are the highest-volume hirers of hardware and network technicians in India but rarely post on mainstream job boards ¹¹ - Target Tier-2 city employers: data centre expansion is moving into Pune, Nagpur, Chennai, Hyderabad, and Bengaluru periphery, where competition for field technicians is lower than in metros ² - Certifications (CompTIA A+, Cisco CCNA, or NIELIT O Level) demonstrably open salary-disclosed roles with larger employers, as evidenced by the Google and Bosch listings that specify practical hardware and networking experience as minimum qualifications ^P
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Bottom line: Live-hiring counts are thin by volume but broad by employer, the signal is real, not robust, and graduates should treat it as a floor rather than a ceiling on actual opportunity.

05 ROLES, PATHWAYS & EARNING POTENTIAL

What the trade leads to, and what it pays

The NTC certificate from this trade is an entry credential, not a career ceiling. The field rewards accumulation of vendor certifications, hands-on project portfolio, and progression from field support into network administration and infrastructure management.

Role this prepares for	Indicative pay in India	Automation resilience
Desktop / Hardware Support Technician	INR 2.3-3.5 LPA (entry) ¹²	Resilient, physical work; risk from AI helpdesk tools for L1 tasks
Network Technician / Field Engineer	INR 2.5-4.2 LPA ¹³	Resilient, on-site infrastructure work; grows with 5G and data centre expansion
IT AMC Engineer (Annual Maintenance Contract)	INR 2.0-3.5 LPA ¹²	Stable, contract-based recurring revenue model across SME clients
System / Network Administrator	INR 3.5-6.5 LPA (mid) ¹⁴	Moderate, remote config risk offset by infrastructure management breadth
IT Infrastructure Engineer (with certifications)	INR 5-10 LPA+ ¹⁴	Resilient, hybrid physical/logical role; high in data centre and enterprise contexts

PHASE 1 Foundations (NTC Year 1) Complete the 1-year CTS trade at NSQF Level 4 under DGT/MSDE. Core competencies: PC assembly and disassembly, OS installation (Windows/Linux), LAN/WAN configuration, switch and router basics, structured cabling, peripheral troubleshooting, and basic network security ^P. Target the NCVT NTC credential on completion.	PHASE 2 Certification Stack Within 12-18 months of NTC completion, pursue at least one vendor-neutral certification: CompTIA A+ (hardware/OS), CompTIA Network+ (networking fundamentals), or NIELIT O Level (government-recognised IT certification). These credentials directly improve salary brackets and open applications at larger employers. Cisco CCNA is the next target for network-focused graduates ^{P15}.	PHASE 3 Practical Execution and Specialisation Target roles in IT AMC companies, system integrators, data centre operators, or telecom infrastructure firms. Document every structured cabling run, server rack build, and multi-site network deployment as a portfolio. Specialise into either (a) network/cloud infrastructure (CCNA, AWS/Azure certifications) or (b) data centre operations and server maintenance, both sub-fields where physical expertise combined with certification commands materially higher pay ^{2P}.
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06 SKILLS BUILT & WHY THEY'RE AI-RESILIENT

Trained for the floor, not just the test

WHAT CANDIDATES ACTUALLY WORK ON

- PC/server assembly, component identification, and hardware fault isolation at component level ^P
- LAN/WAN configuration: IP addressing, subnetting, VLAN setup, DHCP/DNS configuration on Cisco and generic devices ^P
- OS installation, driver management, and basic system administration across Windows Server and Linux ^P
- Structured cabling: Cat5e/Cat6 termination, patch panel management, cable testing with a multi-meter and cable tester ^P
- Network security basics: firewall rules, MAC filtering, WPA2/WPA3 Wi-Fi configuration, and VPN client setup ^P

WHY THESE RESIST AUTOMATION

- Physical presence and fine motor dexterity for hardware installation in varied real-world environments, a core bottleneck to computerisation identified in automation research ⁶
- On-site diagnosis requiring environmental observation (heat, dust, physical damage, unlabelled legacy infrastructure) that remote tools cannot perceive ⁷
- Client-facing problem-solving and communication, explaining technical faults and solutions to non-technical end users in regional languages requires human social intelligence ⁴
- Multi-vendor hardware integration in SME and mid-market environments where no standardised management platform exists ^P
- Emergency field response: rapid physical fault resolution during outages where a remote tool has already failed to fix the issue ⁷

The positioning in one line: A hardware-and-network technician who combines physical installation skills with vendor certifications and AI-tool literacy is positioned in a resilient niche that remote software cannot yet reach.

07 THE CREDENTIAL & QUALITY LAYER

The NTC certificate is a labour-market signal, not a ceiling, stack vendor credentials on top.

The National Trade Certificate (NTC) awarded on completion of this CTS trade is a government-recognised NSQF Level 4 credential issued under NCVT (National Council for Vocational Training), administered by DGT/MSDE. It is formally equivalent to a school-leaving qualification with a vocational specialisation and is accepted by employers, government departments, and public sector undertakings as proof of trade competency. The credential is verifiable through the NCVT portal, reducing asymmetric information risk for hirers ^{P15}.

The NTC alone opens entry-level roles in the INR 2.0-3.5 LPA range. Adding CompTIA A+ and Network+ shifts the salary floor toward INR 3.5-5 LPA at mid-tier employers. Cisco CCNA expands the addressable employer set substantially, the live-hiring data shows Google and Bosch both specify network troubleshooting and hardware experience as explicit qualifications, and these roles clear INR 5 LPA ^P. In the context of automation, a certified technician represents a quality signal that AI diagnostic tools cannot yet replicate: the credential asserts physical competency, not just software knowledge.

Abundant graduates, scarce job-readiness

India's overall graduate employability reached 56.35% in the India Skills Report 2026, a steady improvement but still leaving nearly half of graduates un-job-ready at the time of qualification ³. ITI/vocational graduates specifically showed 45.95% employability, up from 41% the prior year, reflecting gradual improvement in trade-to-job linkage as industry-aligned curriculum updates take effect ³. The computer science and IT engineering streams show 80% and 78% employability respectively, a ceiling that CTS graduates who add vendor certifications can begin to approach. India's electronics sector faces a structural talent shortfall of up to 10 million skilled workers ⁸, which means that for this trade, the binding constraint on employment is more likely to be wage expectation mismatches and geographic mismatches than raw demand.

Every new ITI-trained technician entering this trade enters a market where employer demand materially exceeds qualified supply, the challenge is positioning, not scarcity of jobs ^{P8}.

How a candidate stays on the resilient side

LEAN INTO

- AI-assisted diagnostics as a workflow tool: learn to interpret output from monitoring platforms (Zabbix, PRTG, SolarWinds) and pre-stage hardware before dispatch based on AI fault alerts ⁷
- Data centre and edge computing infrastructure: target roles at colocation facilities and Tier-2 city data centres where the 14.60% CAGR creates sustained technician demand ²
- 5G and telecom infrastructure maintenance: India's 100,000+ 5G site target by 2026 creates a defined field-technician hiring wave with clear skill requirements ¹¹
- Vendor certifications that signal hybrid physical-digital competency: CompTIA A+, Network+, and CCNA are market-tested credentials that employers in the live-hiring data explicitly request ^P
- Green data centre skills: liquid cooling, UPS maintenance, and power management for sustainable data centres are an emerging sub-specialism where trained technicians are scarce ²

AVOID BEING DEFINED BY

- Remaining at pure L1 helpdesk support: this is the highest-risk sub-function of the role, where AI ticketing and chatbots are already absorbing a growing share of password resets and basic connectivity queries ⁴
- Ignoring the NTC credential and vendor certifications: uncredentialed technicians are increasingly filtered out by ATS systems at larger employers, compressing their addressable market ³
- Limiting to a single metro city job search: the highest-growth demand for field technicians is in Tier-2 cities where data centres, 5G roll-outs, and government digitisation projects are concentrated but local talent supply is thin ¹²
- Treating hardware-only skills as sufficient: the role is converging toward network-hardware hybrids; a technician who cannot configure a basic switch or read a network diagram is commercially undervalued versus one who can ^P

Every figure, traced to a source

P NSQF / CTS Program Specification (primary).

Trade definition, NSQF level, syllabus, tasks and deliverables for the "Computer Hardware and Network Maintenance" Craftsmen Training Scheme trade (DGT / MSDE).
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- 3 **Wheebox / Insights on India: India Skills Report 2026****
- Overall graduate employability at 56.35%; ITI/vocational graduate employability at 45.95% (up from 41%); CS engineers at 80% employability leading all streams.
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- 78 million net new jobs by 2030; 92 million roles at risk; 40% of employers plan headcount reduction via automation; Mechanics and Electrotechnology Engineers listed among growing roles combining manual skill and tech literacy.
- <https://www.weforum.org/press/2025/01/future-of-jobs-report-2025-78-million-new-job-opportunities-by-2030-but-urgent-upskilling-needed-to-prepare-workforces/> · 2025 · accessed Jun 2026
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- Foundational study assigning automation probabilities to 702 US occupations; manual dexterity, finger dexterity, and physical presence identified as primary bottlenecks to computerisation, directly relevant to hardware installation and cabling tasks.
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- 7 **RepairDesk Blog / Spark Services: Leveraging AI in Computer Repair Operations, 2025****
- AI tools automate remote diagnostics, predictive maintenance alerts, and standard device configuration; complex physical repairs, on-site builds, and multi-vendor troubleshooting remain human tasks.
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- India's electronics sector faces an estimated 10 million skilled-worker shortfall; hardware, manufacturing, and technical roles most acutely affected.
- https://www.business-standard.com/finance/personal-finance/10-mn-skilled-workers-needed-india-must-tackle-shortage-for-electronics-124111801270_1.html · 2024 · accessed Jun 2026
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- PLI 2.0 for IT hardware offers 4-6% production incentives; by September 2025 led to ₹14,462.7 crore cumulative production and ₹892.47 crore investment, creating 6,821 direct jobs.
- <https://www.indialawoffices.com/legal-articles/pli-scheme-manufacturing-it-hardware-india> · 2025 · accessed Jun 2026
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- India targeting 100,000+ 5G sites across all circles by 2026; each site requires field engineers for installation, commissioning, and maintenance, creating a defined wave of technician hiring.
- <https://www.vedangcellular.com/blog/5g-network-rollout-in-india-process-challenges-what-operators-need/> · 2025 · accessed Jun 2026
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- <https://www.collegedekho.com/articles/list-of-jobs-after-iti-computer-hardware-and-network-maintenance-trade/> · 2025 · accessed Jun 2026
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- Average network technician salary INR 24,678 per month (INR ~2.96 LPA); senior network technicians average INR 5.45 lakh per year; top paying employers include Team Lease and Suraj Informatics.
- <https://in.indeed.com/career/network-technician/salaries> · 2026 · accessed Jun 2026
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- Computer hardware technician median salary INR 2.31 LPA; network technician median INR 2.49 LPA; mid-career hardware technician INR 2.54 LPA; pay range up to INR 5.41 lakh with bonuses for senior roles.
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15 ****BharatSkills / DGT: CTS Computer Hardware and Network Maintenance NSQF Level 4 Curriculum****

Official NSQF Level 4 curriculum for CTS Computer Hardware and Network Maintenance: 1-year (2 semesters), entry requirement Class 10 with Science and Maths, covering hardware assembly, OS installation, LAN/WAN config, cabling, and network security.
https://bharatskills.gov.in/pdf/QP_Curriculum/CTSCHNM_CTS_NSQF-4.pdf · 2024 · accessed Jun 2026
