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The Bench Is Gone: Why Institutions Must Now Build Deployment-Ready Engineers

A Quadrafort Academy thought leadership note for skill development teams and higher education institutions.

We need now is a UPI moment for AI talent –This is a powerful way to frame India's next big opportunity. Just as UPI democratised digital payments by making them interoperable, accessible, and scalable, India needs a similar breakthrough to democratise AI skills, validate talent, and connect people to real-world AI opportunities.

> **For thirty years, India's IT employers quietly finished the education that colleges started. That arrangement has ended. Institutions and skilling teams now have to produce engineers who are productive on day one, and the next 18 months decide who does it well.**

The finishing school has closed

India's largest IT employers ran the country's most effective engineering school, but never called it that. Infosys's Mysore campus could train 14,000 people at once. TCS trained 50,000 a year in Thiruvananthapuram. A graduate from any branch, from any college, could become a billable engineer in three to eight months.

That model depended on volume. When headcount drove revenue, absorbing the gap between what colleges taught and what projects needed was a sensible cost. AI has broken that logic. Fresher hiring fell from about 6 lakh in FY22 to about 1.2 lakh in FY25, a drop of roughly 80%, while industry revenue kept growing.

The bench, and the training that came with it, is not coming back. The work of making graduates job-ready now sits with the people reading this note: universities, colleges, and the skill development teams inside enterprises and GCCs.

What has actually changed

The disruption is already measurable, and it lands hardest on the entry rung. The report's evidence points to five shifts that matter for anyone who trains engineers.

- **AI now does the entry-level work.** Anthropic's Economic Index shows automation overtaking augmentation in AI use during 2025. Coding is the most automated use case, and it is also India's primary export.

- **The US signal arrived first.** New graduates are 7% of Big Tech hires, down from 15% pre-pandemic. Early-career workers in AI-exposed roles saw a 13% relative fall in employment, while workers aged 35–49 gained.
- **Employable is not the same as hired.** 83% of the 2024 engineering batch had no job offer, even though 71.5% were rated employable. Entry-level IT roles are already 20–25% lower.
- **GCCs are hiring, but for specialists.** India's 1,700+ GCCs add 1.2–1.4 lakh roles a year at a 12–20% pay premium. Their top asks are domain expertise (66%), AI/ML (63%), data engineering (54%) and cloud (48%).
- **The AI talent gap is the opening.** Bain projects 2.3 million AI job openings in India by 2027 against a talent pool of 1.2 million.

The headline is not job loss. It is scarcity: too few engineers who can build, deploy and govern AI systems, and too many graduates trained for work that is being automated.

Our view: this is a formation gap, not an information gap

AI has made knowledge abundant; a four-year syllabus is now one conversation away. What employers pay for is the ability to take an unfamiliar problem and deliver a working outcome. At Quadrafort, our 500+ practitioners do this every day on live projects for 150+ enterprise clients. Five principles follow from that experience.

1. **Deployment is the unit of learning.** A module is complete when something works in a real environment and a practitioner has rated it, not when an exam is passed.
2. **Depth beats breadth.** The pyramid of interchangeable freshers is giving way to a pillar model of specialists: AI engineering, cloud, cybersecurity, data, and domain plus AI.
3. **The teacher must practise.** Faculty and trainers who use AI tools on real work every week teach differently from those who describe them.
4. **Tools change; rigour stays.** Fix the delivery standard and the assessment bar. Refresh the tools and models every quarter, and teach learners to pick up a new one in 72 hours.
5. **The client is part of the classroom.** Learners need time inside real teams, with real stakeholders, before anyone depends on them.

For higher education institutions

The measure of success is changing from placement percentage to whether graduates need training after they are hired. Policy already points this way: AICTE declared 2025 the Year of AI, NEP 2020 requires outcome-based education, and NBA and NAAC increasingly reward evidence of outcomes.

- **Embed AI in every course.** One AI elective added to an unchanged programme is what the report calls greenwashing. Electrical, civil and mechanical courses need AI use cases too.
- **Give every graduate a named specialisation.** Organise the final two years around one pillar, each ending in a capstone deployed on real infrastructure and reviewed by an employer.
- **Make work-integrated learning mandatory.** Summer internships help; a full-semester placement inside a real team changes outcomes. Northeastern's co-op model reports 96–97% of graduates employed or studying within nine months.
- **Grade the portfolio, not only the paper.** Every student should leave with a set of deployed, employer-rated projects.
- **Plan for 50 firms hiring 10, not 5 firms hiring 500.** A diverse recruiter base of GCCs, AI startups and product companies is more resilient and more honest about quality.
- **Treat entrepreneurship as curriculum.** A funded incubator and a tracked startup metric belong in the programme, not in a club.

For skill development and L&D teams

Enterprise and GCC skilling teams face the mirror image of the campus problem. Bench time has fallen from 45–60 days to 35–45, so there is little room to train new hires after they join. The work has to move earlier and closer to delivery.

- **Move training before the offer letter.** Partner with campuses to run role-specific programmes in the final year, and make clearing an assessment a condition of joining. Learners who have invested effort are less likely to drop out before day one.
- **Turn courses into micro-internships.** Replace slide-led training with short projects built on briefs from your own backlog, submitted and reviewed like real work.
- **Build for roles, not catalogues.** Map programmes to the skills your GCC actually hires for, such as agentic AI, data platforms and cloud architecture, rather than generic technology tracks.
- **Measure transfer, not attendance.** Agree skill, productivity or certification benchmarks before a programme starts, and track them after it ends.
- **Reskill the middle, not only the entry.** Mid-career staff in AI-exposed roles are being augmented. Give them the tools and judgement to direct AI systems and to mentor the smaller junior cohort.

A practical model: from AI literacy to forward deployment

Quadrafort Academy builds programmes around one pathway that works for a four-year degree or a compressed enterprise cohort. Each stage ends in something deployed and rated.

1. **Foundation.** AI literacy, programming with AI copilots, an AI-native development lifecycle (Git, CI/CD, AI-assisted testing) and a first cloud deployment.
2. **Specialisation.** Depth in one pillar, tied to OEM certifications from partners such as Salesforce, ServiceNow, SAP, SentinelOne, AWS and Google, on client-mirrored projects.
3. **Forward Deployed Engineer (FDE) training.** Client discovery, rapid AI prototyping with agents and RAG, enterprise integration, production readiness and stakeholder communication. Learners earn an FDE Associate certification by deploying a working solution from an unseen client brief in 72 hours.
4. **FDE residency.** A full semester, or several weeks for enterprise cohorts, embedded in a GCC or client team. Learners earn the FDE Professional certification on employer-rated deliverables and a measured value report.
5. **Sustain.** A weekly new-tool sprint and a quarterly curriculum refresh keep both learners and faculty current.

The FDE stage matters most. 58% of GCCs are investing in agentic AI, and they need engineers who can take it from a demo to daily use inside a client's business. That is the role the old bench used to grow, and the one institutions can now grow themselves.

Ten questions to answer before the next academic year

A leadership team that can answer yes to most of these is already on the right side of the transition.

- ☐ Is our primary KPI the share of learners with a deployed, employer-rated portfolio?
- ☐ Is AI part of every course, not one elective?
- ☐ Does every learner graduate with a named specialisation?
- ☐ Is a full-semester or multi-week placement inside a real team mandatory?
- ☐ Have 100% of faculty and trainers completed an assessed AI fluency programme?
- ☐ Do practitioners deliver a meaningful share of technical teaching hours?
- ☐ Is the curriculum refreshed with industry at least every quarter?
- ☐ Have we contacted 20 employers who have never recruited from us, and offered to co-design one course?
- ☐ Do we have a funded incubator and a tracked startup metric?
- ☐ Do we publish our actual nine-month employment rate, broken down by employer type?

The window is 18 months

The report sets out three phases: chaos to 2028, transition to 2031 and growth to 2036. In a high-disruption scenario, about 30% of engineering colleges close, merge or cut seats during the transition. The institutions that reform during the chaos will be the ones GCCs name as their preferred talent pipeline.

India has done this before. UPI was a decision made early and executed at scale. The same can be true for AI talent, if institutions and skilling teams act together now.

> **Quadrafort Academy invites universities, colleges and enterprise skilling teams to start with a capability diagnostic, co-design one pilot cohort this academic year, and measure what it delivers.**

About Quadrafort Academy

Quadrafort Academy is the learning arm of Quadrafort Technologies, an IT consulting firm and OEM solution partner for Salesforce, ServiceNow, SAP and SentinelOne. Programmes are delivered by practitioners from a 500+ person delivery team serving 150+ enterprise clients, with a focus on Industry 4.0 technologies.
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Sources

All statistics are taken from *Engineering India's Next Engineer*, a report by Revature released at the AI Academy in a Box Summit, Chennai, August 2026. That report cites, among others, Xpheno, TeamLease Digital, Bain & Company's AI Talent Gap Report 2025, EY GCC Pulse Survey 2025, NASSCOM-Zinnov, the Stanford Digital Economy Lab, the Anthropic Economic Index, Unstop Talent Report 2025, India Skills Report 2025 and Northeastern University co-op data. Readers should consult the original report for full citations.