



EDITORIAL

Universities at the Core: How Pakistan's Higher Education Sector Is Powering the IT Boom

As Pakistan's IT exports race toward \$5 billion this fiscal year, the country's universities are quietly retooling computer science education for an AI- and cloud-driven economy — but the gap between classroom and corporation is closing slower than the export curve is rising.

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Introduction

Pakistan's information technology and IT-enabled services sector earned a record \$3.8 billion in exports in FY2024-25, up roughly 18 percent year-on-year, and officials in Islamabad now expect the figure to climb to \$4.5–4.6 billion by the end of FY2025-26. A decade ago, the entire sector exported under \$1 billion a year. Behind almost every dollar of that growth sits a graduate — a programmer, a QA engineer, a cybersecurity analyst, or a freelance developer — who learned the fundamentals of computing somewhere on a Pakistani university campus before being absorbed into a Karachi software house, a Lahore start-up, or a remote team serving a client in London or Riyadh.

That makes universities the true starting point of Pakistan's digital economy, long before any policy announcement or export target makes headlines. They decide how many computer science seats exist each year, what languages and frameworks students touch before graduation, and whether a student leaves campus ready for a global remote-work market or merely ready for another exam. As the country chases ever more ambitious export goals, the capacity, quality, and relevance of university-level IT education has become a national economic question, not just an academic one.

"Pakistan's universities are no longer just teaching computer science — they are quietly underwriting the country's most reliable export industry."

Technology Overview

The Higher Education Commission (HEC) has spent the past year overhauling what an IT degree actually looks like. In 2025, its National Curriculum Revision Committee — working with the British Council and the EU's TVET Sector Support Programme — rolled out a revised BS Computer Science framework covering more than a dozen specialisation tracks, including artificial intelligence, data science, cybersecurity, cloud computing, robotics, and quantum computing. Every public and private university offering the degree is now required to align with this baseline, replacing syllabi that, in many departments, had barely changed in a decade.

The revision goes beyond course titles. HEC has also made supervised internships and industry-recognised certifications mandatory components of undergraduate degrees, with computing and IT named a priority sector. Students can now substitute select electives with certifications from credible international bodies, and universities are being pushed to formalise partnerships with software houses, BPOs, and SMEs to secure placements that



mean something on a CV. Separately, the HEC–Coursera Digital Learning & Skills Enrichment Initiative has opened access to courses and professional certificates from top global universities and companies to students who previously had no realistic way to reach them.

Key Findings & Impact

The numbers behind this pipeline are striking. Pakistan's IT and IT-enabled services exports have compounded at roughly 17–21 percent annually over the past decade, according to State Bank of Pakistan data, with monthly exports crossing \$400 million for the first time in December 2025 and again in subsequent months of 2026. The government's own targets — \$5 billion this fiscal year, and a stated ambition of \$10–25 billion within three to four years — are not achievable on the back of existing companies alone. They require a steadily expanding, better-trained graduate base, since computer services already account for over four-fifths of the country's ICT export earnings.

For Pakistan's tech industry, this places universities in an unusually strategic position. Software houses regularly cite a skills gap in practical cloud, DevOps, and AI work even as enrolment in computing degrees grows; the new internship and certification mandates are a direct policy response to that complaint. Meanwhile, the same expanding broadband and digital-payments infrastructure that lets graduates freelance for overseas clients — home internet connections rose from 1.9 million in 2024 to 5.1 million in 2026 — only pays off if universities keep producing people capable of using it productively from day one.

What's Next?

The challenges are real. Curriculum reform is only as good as the faculty teaching it, and many departments — particularly outside Karachi, Lahore, and Islamabad — still lack instructors trained in AI, cloud, or cybersecurity at the depth the new framework demands. Broadband quality and reliability remain uneven outside major urban centres, which limits how evenly the benefits of a digital economy reach students and graduates across the country. And rolling out a national curriculum standard across hundreds of universities of wildly varying capacity is a slower process than any press release suggests.

Still, the direction is set. Mandatory internships, certification pathways, and a modernised curriculum signal that Pakistani higher education is being asked to behave less like an academic gatekeeper and more like a talent supplier for a global market. If the country is serious about turning a \$5 billion IT export sector into a \$10 billion or \$20 billion one, the deciding factor will not be policy announcements in Islamabad — it will be whether a computer science classroom in Multan, Hyderabad, or Peshawar can give its students the same shot at that future as one in Lahore.

About the Author

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