

ER: You graduated as an electronics engineer from Dawood College of Engineering. Tell us about your educational journey and how you entered the engineering profession.

Engr. Rafiq Ahmed Lakhani: My generation has witnessed one of the greatest technological transformations. I grew up in Karachi when trams still ran on Bunder Road, and today we are living in the era of Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR).

I earned my Bachelor's degree in Electronics Engineering from Dawood College of Engineering & Technology and later joined SUPARCO on merit, where I completed a postgraduate diploma in Electronics. Although I later received an offer from another high-security government organization, I chose entrepreneurship because my family had long been involved in business.

ER: What was engineering like when you graduated?

Lakhani: University gave us a strong theoretical foundation, but practical engineering was very different. Personal computers had just

entered international markets, while Pakistan was still unfamiliar with the technology.

Three of us started our own engineering company. Initially, we focused on maintenance and repair to build credibility before moving into advanced medical equipment projects.

ER: What were some of your company's landmark achievements?

Lakhani: One of our earliest milestones was installing

Pakistan's first Central Cardiac Unit (CCU) monitoring

system at the National Institute of Cardiovascular Diseases (NICVD). We also installed one of the country's first Philips angiography systems at Liaquat National

Hospital. At that time, these technologies were considered

highly advanced and helped strengthen our technical expertise.

ER: How do you see Pakistan's position in semi-

conductor technology?

Lakhani: Semiconductors

represent the future of technology. Pakistan has begun promoting integrated circuit (IC) design, and universities are receiving Electronic

Malaysia, and Thailand, which are investing billions

of dollars in semiconductor development. Without sustained investment, Pakistan cannot become globally competitive.

ER: What has been the

biggest technological transformation during your career?

Lakhani: The speed of technological change has been extraordinary. I have seen the evolution from mechanical systems to analogue and digital electronics, computers, the internet, mobile technology, AI, and now virtual and augmented reality. We graduated when personal computers were a novelty; today, engineers design intelligent systems and complex semiconductor chips.

ER: What advice would you give young engineers?

Lakhani: Engineering is a profession of continuous learning. Technology never stands still, so engineers must constantly update their skills. Today's graduates have access to global knowledge, advanced software, and international collaboration from their laptops.

My advice is to build strong fundamentals, stay curious, keep learning, and consider entrepreneurship. Pakistan needs engineers who create technology, not just use it. The future belongs to innovators. ■

Engineering Has No End, It Continues to Evolve with Every Generation

From Trams to AI: Engr. Rafiq Ahmed Lakhani reflects on five decades of technological transformation, entrepreneurship, and the future of semiconductor engineering in Pakistan.

"Engineering Review is doing an excellent job and deserves the support of the entire engineering community. My relationship with the publication goes back many years, and I had the privilege of knowing its founders personally."

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