

Deccan Herald

SHIFT IN FOCUS

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Engineering education warrants change

SHIFT IN FOCUS It is important that graduates take core engineering subjects seriously and adapt to creative learning methods which focus on practical and research oriented techniques, writes Prof Srikanth Jadcherla

'Engineers Build Nations' is a powerful and motivational slogan that was embraced by most developed and developing countries. Historical data clearly proves that engineers play an extremely constructive role in creating a bright tomorrow for our society and our country. But, are today's engineers capable of bringing in a change in today's India? Is our current engineering education system on par with developed nations or meeting global standards? Are we producing engineers who are equipped with the skills needed to be innovative and productive in a corporate environment? Are our engineers able to successfully implement their ideas into the mainstream and benefit our society? There are more questions than answers.

When the global economy was reeling under recession and many jobs were drying up, it forced each one of us to think and innovate. Indian higher education institutes are also facing this challenge to innovate for their own survival. While IT jobs are drying up, more opportunities are being created in core engineering fields like electronics, telecommunications, power generation and renewable energy sources.

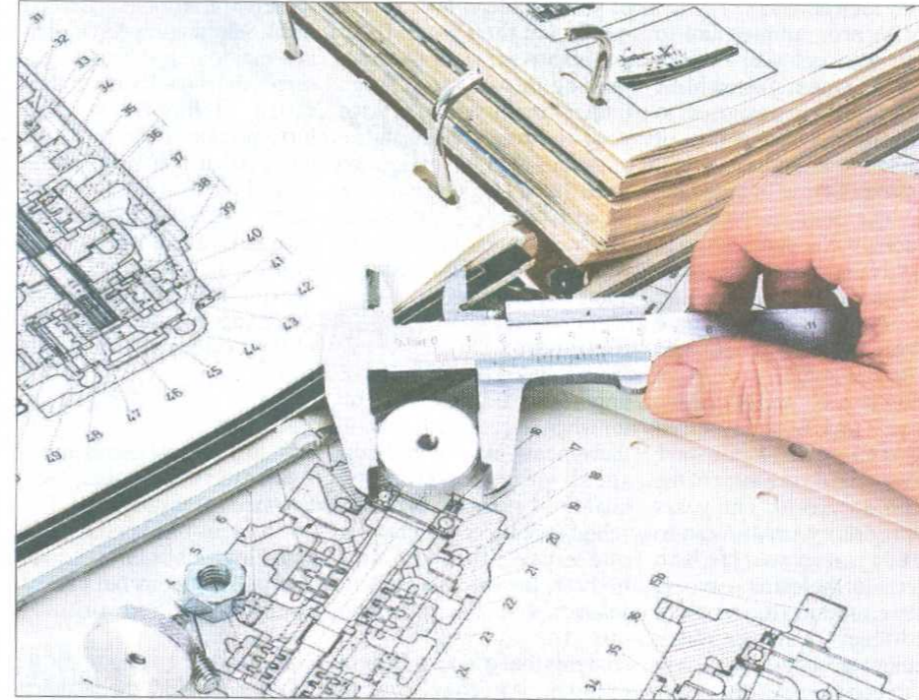
It is important for everyone to do a reality check and gear up for new opportunities and challenges facing us. Core engineering jobs require a lot of skill and it is up to our

educational institutes and Universities to build the right skills and confidence among our students and prepare them to take on the challenges.

A much debated topic in Indian education is that although we produce many engineering graduates, our system is more theoretical in nature and that we lack a practical approach to problem solving. This topic has been deliberated more than acted upon. India today is certainly entering into a phase where more action is needed than deliberation to generate results. There is a real need for change in higher education in general and engineering education in specific to stay competitive in this increasingly global and flat world.

While it is true that Indian higher education institutes lack quality teachers, it's important for these institutes to find ways and means to provide the best possible education to the students. Emergence of the internet and online medium has practically wiped all the location barriers and has also become a source of immense knowledge which can be tapped by anybody and everybody.

The corporate world has overcome the challenge of location as a barrier and is making efficient use of technology to have a seamless work environment across time zones. Indian education needs a similar approach to overcome knowledge barriers created by location barriers. It is



imperative for Indian higher education institutes to provide the best quality education even if the source of knowledge is located across the seven seas.

If we consider electronics engineering alone, the sector needs over a 100,000 skilled work force every year to meet the Indian domestic market needs. The ever growing demand for electronic goods is creating employment opportunities in both white collar and blue collar work force. While a lot of action is happening in India as a growing global market place for consumer electronics, many

Indian graduates seem to be lacking the required skill set to be innovative and create our own products. The dismal number of electronic businesses that we encouraged and produced in the last decade should tell the story clearly.

A fact which most young graduates and faculty alike ignore is that India has emerged as one of the largest telecommunications market in the world; India is the preferred destination for chip design and embedded software; India is projected as the next hub for semiconductor manufacturing. These factors are good enough

reason for Indian higher education institutes and graduates to take core engineering subjects seriously and adapt to creative learning methods which focus on practical and research oriented techniques. Now is the time to go beyond text books and lectures and provide opportunities to our graduates to express their creativity and put their theoretical knowledge to develop products that can take India as a super power for electronics design.

(The writer is the chairman and CEO of Seer Akademi-India)