

Editorial



Technological Universities of India should come out of their Comfort Zone & Assume a proactive and dynamic Role To attain global Quality and Excellence.

Today, we are having 88 Technical / Technological Universities, of which 34 are State Universities, 32 Deemed to be Universities and 22 Private Universities. A few of these are confined only to one or two disciplines like Management and Information technology. The First Technological University established in India, was in 1972 at Hyderabad (A.P.) *i.e.* Jawaharlal Nehru Technological University. Thus, the technological universities in India have been functioning for nearly last 2 decades.

Earlier the Engineering colleges were affiliated to the Traditional State universities and were coupled with Arts, Science, Commerce Faculties etc. The number of affiliated colleges became so large that it became a great burden for the functioning of these State universities. Secondly, engineering being a professional discipline, the special attention it deserves, could not be given by the Traditional Universities. On account of these two reasons, the idea of a separate University for Professional Disciplines like Engineering, Medical and Health Universities has emerged in the last decade and many of the Indian states established Technical / Technological Universities bringing all Engineering and technical colleges under one umbrella. As a result, we have today 88 Technological Universities in India, as mentioned earlier. How these Technological Universities are functioning, could they give special attention to Engineering Profession, what difference they have made to Higher Education system in the State and at the National level, where they stand with respect to global standard, all these questions have become matter of great concern to all the stake holders in Higher and Technical Education. It is for this reason that this special issue is being brought out.

1. At the outset, it is seen that there is no distinction between the titles 'Technical' and 'Technological' Universities. The AICTE should have made/ should make a clear cut distinction between these two terms. We would suggest that a **Technical university** should be an affiliating type of University concerned mainly with training in Engineering disciplines and awarding UG and PG and even PhD. It may also aim at Research, Innovation, Invention, Technology Generation and Patents, but not necessarily. Also, the aim of such university should be to encourage and facilitate affiliated colleges to become autonomous, **where as a Technological University** should be not affiliating, it should have a single campus and **focused on** Research, Innovation, Invention, Technology Generation and Patents along with imparting engineering education at UG, PG & PhD.

Also the number of affiliated colleges to a Technical University should be limited to 50 (Yashpal committee says, no more than 200 affiliated colleges for a state Traditional University) and for every 5 Technical Universities there should be one Technological University.

2. Quality Education should and must be top most on the agenda of every university, be it Technical or Technological. That, we are at present only provisional member of the Washington Accord, should compel these universities to take steps to enhance Quality and Excellence in all educational activities—the admissions, teaching-learning process, curriculum development and delivery, evaluation, training and placement etc.

3. These universities (Technical/Technological) are to produce graduates to become professionals and not merely general graduates i.e. B.A., B.Sc., B.Com as in state Traditional Universities. Hence, the Engineering graduates need to be equipped not merely with hard skills but also with necessary soft skills, communication skills, presentation skills etc. The UG curriculum should take care of this aspect, as well. Besides this, there should be an all round effort on enhancing the employability of graduates.

4. Every Technical or Technological University should have close relations with the institutions of Engineering- IE(India), the professional body of Engineers; the university and the professional body, IE(India) should work together to ensure that a young graduate coming out of portals of a technical/technological university, has a smooth entry into engineering profession.

The objective of any such university should be to produce manpower which is technically sound, professionally competent and, socially relevant. The curriculum, should keep these objectives in mind.

5. Neither a university nor any organization can grow and develop to its full potential, in isolation. It can grow and develop, by itself, only to a limited extent. To utilize its full potential, it must interact, share experiences, plan together and grow together along with other universities, **thereby generating synergy**. Such a group of universities can be called a **consortium of universities** and these universities can lead to the formation of a national consortium of Technical and Technological universities of India. The formation of such an Apex Body is, a must, for taking our universities to the global plane and march together on the path of Global Quality and Excellence.

Both private and government funded universities, can join hands in this mission. The consortium should also motivate every college to get proper accreditation which is recognized both at the national as well as international level.

These Technological universities can form an Association—Association of Technical/ Technological Universities of India (ATTUI) on lines similar to AIU, i.e. Association Of Indian Universities, New Delhi, which also publishes a quarterly journal 'University News'

6. In all this process, the universities should have a philosophy for its action plan. The best philosophy available now is the Total Quality Management (T Q M) which not only provides a philosophy but also tools and techniques for enhancement of Quality, involving all personnel and processes.

7. In short, the above suggestions could be summarized as given below:

A: Think Tank

a) There should be a think tank for each university. It should keep a watch on the functioning of a university, in the context of aims and objects mentioned in the University Act and ensure that the University is functioning on correct lines

b) It should work out performance indicators, both qualitative and quantities and ascertain the progress being made at regular intervals.

c) It should keep a watch on the developments in Technological universities, both in India and abroad, and identify the new trends and best practices, discuss their merits and also decide if they can be adopted for their university

d) They should keep a watch on the global league of tables/ Ranking of Technological universities and make suggestions for improvements (based on continuous improvement processes principle for the university) so that our universities constantly strive to occupy higher & higher places in the global ranking

e) The think tank should also evolve mechanisms for proper governance of these universities-a governance structure which is transparent, objective and involving all the stakeholders.

B: Quality Cell

a) Every university should have a Quality Cell consisting of faculty members who should have clearly understood and imbibed the concept of Quality, its application to various educational process of the university - the admissions, teaching-learning process, curriculum development and delivery, evaluation, training and placement etc

b) There should be a regular Five Year Plan converted in to yearly plans and their implementation should be carefully noted, at regular intervals

c) There should a small group of faculty drawn from Quality Cell who can write articles on Quality matters. In absence of such a group, a University or a college finds difficulty in responding to the request for a note or an article on any aspect of Quality

d) The quality measures should be based on TQM Philosophy, which involves the entire faculty, inspired with shared vision and a mission, determined to march on the unending path of Global Quality & Excellence.

e) We must perceive each of the stakeholders as our valuable customer and develop mechanisms to take feedback and evolve an action plan to improve and meet their changing needs of today & tomorrow.

C: Visionary Leadership

The progress and development of University depends on its leadership and hence, the Vice Chancellor and other authorities should have longterm vision, strategic planning, System's concept thinking along with total participation of the workers etc. in short a university should function on the philosophy of TQM.

Closing Remark

With this I am sure our Technological Universities will be marching on the path of Total Quality and Excellence of the global standard and contribute their best to make India a superpower by 2020.

Prof. N. V. Ratnalikar,

Cell No.: +91 9850 800 385
Email ID: eefedu@gmail.com

Editor, Journal of Engineering Education, Pune.
& President, Engineering Education Foundation, Pune.
