

Steps for improving quality of education in engineering and other technical education

AICTE resolution 14th March 2017

With a view to improve the standards of technical education and to provide competent technical manpower for the Make-In-India campaign, the Council has approved the following package of measures to be implemented by all the technical institutions approved by the AICTE:

Objectives:

The following bench-marks are to be attained for the technical education as a whole:

1. To improve the employability of the students by imparting required skills and making them industry-ready.
2. To increase the percentage of students being placed from the current 40% to 60%.
3. To increase the percentage of programmes accredited from 15% to 50%
4. To ensure that at least 75% of the students participate in summer internships.
5. To build capacities of the technical institutions so that they can deliver on the above objectives.

Initiatives

In order to achieve the above, the following initiatives would be implemented:

1. Planning: Perspective Plans will be prepared for each State in consultation with the concerned State Government for assessing the demand-supply situation projected for the next 10 years. This will be a guiding document while approving new institutions by AICTE.
2. Selection: The students for the technical courses shall be selected based on performance in the single National Entrance Examination for Technical Institutions (NEETI). The **All India Council for Technical Education Regulations for admissions in technical institutions through National Entrance Examination, 2017** is approved by the Council for admissions starting from academic session 2018-19. The

Regulation stipulates single test, conducted multiple times, by an Agency authorised by MHRD; and bans conduct of such exam by any other institution or university or agency. This will ensure that the students taking the technical education courses possess minimum skills and aptitude required for the study.

3. Induction training: Every student, on admission, shall be put through a mandatory Induction training to reinforce the fundamental concepts and the required language skills required for the technical education. The model curriculum and the periodicity of this induction training will be separately notified by the AICTE.
4. Revision of curriculum: Every affiliating Technical University shall constitute subject-wise industry consultation committee (ICC) with the mandate of examining the existing curriculum and for making suitable changes in the curriculum every year. This process shall be completed in the month of December each year for the courses to be offered in the coming Academic year. Each institution, while applying for approval, shall certify completion of this process, which will be mandatory.
5. Mandatory internships: Every student in technical institution shall do three internships each spanning 4 to 8 weeks before completion of the under-graduation. The responsibility will be on the institution for helping the students in finding suitable industry or organisation for the internship.
6. Industry readiness: All students passing out of the undergraduate courses shall be imparted technical and soft skills required for working in the industry encompassing – managerial skills, entrepreneurial skills, leadership skills, communication skills, team-working skills and technical skills.
7. Promoting innovation/start-ups: There shall be efforts at every level for promoting innovation and creativity in the students. The innovation drives like Hackathon shall be promoted, so that innovative ideas would emerge that can be incubated in the start-up centres.
8. Exam reforms: The final exams being conducted by the institutions shall test the understanding of the concepts and the skill – rather than

the subject knowledge. A model exam format would be prepared and shared with the institutions and the technical universities for suitable adoption. This aspect would be reviewed at the time of approval.

9. Training of teachers: Every teacher in each of the technical education disciplines shall mandatorily undergo an annual refresher course delivered through SWAYAM portal, encapsulating all the major advances in the field of their study. Online courses would also be prepared and delivered through the SWAYAM platform for improving the pedagogical techniques of the teachers. The participation in the courses by atleast 50% of the faculty would be a mandatory condition for approval of the institution. Similarly, there should be leadership training to the heads of the institutions once in 2 years. These trainings would also be hosted through the SWAYAM platform.
10. Mandatory accreditation: At least half of all the programmes in the technical institutions shall be accredited through the NBA before 2022. Unless there is credible progress each year, the approval of the institutions can be refused. In order to assist the institutions in meeting the mandatory requirements for applying for accreditation, a separate mechanism will be put in place.

Each institution should prepare an action plan for implementing the above initiatives along with the financial implications before June 2017. Whereas it is the responsibility of the institution for funding this action plan, AICTE may, share a part of the cost of the above action plan @ not exceeding Rs. 100 per student per year.
