

# Education

Your window to the world of learning

## Choose wisely for that career edge

**CHOICE MATTERS** Engineering aspirants should work out the right strategies in choosing a course that is fast emerging and has a wide career scope, writes V Pradeep Kumar

The last few years had evidenced an enormous change in the phase of employment opportunities for engineering graduates. Since the scope for new jobs in traditional engineering streams is narrow, students have become more selective by joining non-engineering sectors, especially sales and marketing.

In a competitive work environment, students specialised in new technologies such as Artificial Intelligence, Machine Learning, Data Analytics and Virtual reality will have more career advantage. Significantly, there is an increased demand from employers for candidates specialised in these areas, but apparently, there is a shortage. In this context of lopsided availability vis-à-vis demand, students opting for engineering courses in the next academic year should follow a systematic approach to be ready for future jobs.

Students completing their Class 12 or PUC should evaluate and identify their area of interest. Identify emerging industries and corresponding streams. There are around 20 engineering streams differing in employment potential. While traditional streams like civil, mechanical and electrical engineering continue to have potential, but the demand is much higher for Computer Science and IT streams, with new specialisations. Industries are now looking at increased automation to replace those tasks that usually need human intelligence such as speech recognition, visual perception, translation of languages, etc., which deal with finding innovative solutions to problems and are classified as Artificial Intelligence (AI).



### Identify skill sets

Define a methodology to upgrade your skills to match the profile for the preferred stream. If you are really passionate about getting into AI careers but possess relatively weak programming, then realising your goals would be difficult. But you must bridge the gap in your programming skills by pursuing additional courses or doing an internship. Similarly, AI careers, you have to be proficient in Mathematics—especially logic and algorithms. If you want to consider a career in AI, related to biological applications, then you must be highly familiar with Psychology and the functioning of the nervous system. Logic and algorithms help to design programmes that help to replace human intelligence with AI. Therefore, proficiency in programming is a must.

### Yardstick

Identify universities and colleges offering the preferred stream. Many websites give out information related to options of streams, universities and colleges, the admission process, etc. For instance, if you are identifying colleges offering Chemical Engineering in Karnataka online, a ready list will appear in no matter of seconds, unlike for newer courses like Artificial Intelligence. Also, be wary of colleges offering AI courses to take advantage of the boom without providing the necessary infrastructure for such a course.

There are certain criteria which students should consider while opting for an engineering institution. At first, the number of years the college or the institution is in operation, which would authenticate your choice, whereas new ones may take considerable time to develop infrastructure. Also, check for industry affiliations, professional memberships and strategic tie-ups. The next would be the quality and number of faculty. It is important to check the expertise and experience of a faculty in a department and the ratio of full-time faculty to the number of students.

Approval of authorities such as UGC/AICTE/Technical Boards, Council of Architecture, etc. is important and mandatory. Institutions without approvals luring students with freebies such as foreign trips, laptops, etc., are common. If you are choosing an institution overseas, ensure that it is recognised in the country where you want to pursue a career.

Check the syllabus with the right combination to ensure comprehensive learning. Another key factor is to check the teaching pedagogy, internships, projects, etc., which can vary especially in overseas universities.

In addition, one should also check for key infrastructural facilities like campus, library, labs, hostels, transport, etc., that will facilitate your learning. Some of these details may not be readily available online, hence offline research ensures that infra-

**“ Look for feedback and reviews by students, past and present, to validate your selection through online social media sites...**

structure exists as claimed. Placement record is yet another factor that authenticates the quality of the institution and is a reassurance that you are getting into the right institution.

Look for feedback and reviews by students, past and present, to validate your selection through online social media sites like LinkedIn and others. In this regard, alumni groups can give you reliable

information about the institution. Networking with professionals on LinkedIn will also be useful.

Do not stop with one choice, keep alternatives of three to four colleges for admissions. Evaluate eligibility for admissions and identify colleges that meet your requirements considering infrastructure, fees, ease of admission, location, etc.

### Preparation

Preparation is one of the crucial factors. In most cases, preparation is common and must begin early. Perform well in your Class 12 or PUC, JEE or CET or other exams. Some institutions have individual entrance exams and you must take a call as how to face additional exams than the regular ones. Remember each entrance exam requires intense researching and preparing, which would tax your time and add to your pressure. Hence, limit the number of entrance exams as per your need and capacity.

Mahatma Gandhi had said, “Strength does not come from physical capacity. It comes from an indomitable will”. A strong self-motivation separates you from others and is a key to extraordinary achievement. Therefore, while deciding the course, one should be self-confident, which in turn makes your career more enjoyable.

*(The author is a management and career consultant)*