## Geethanjali College of Engineering and Technology

#### Cheerval(v), Keesara (m), Hyderabad

We hereby propose some views/thoughts which may facilitate students who are planning for a Bachelor's Degree in Engineering / Technology on choosing a branch of engineering and college. We believe that this choice of selecting a branch of engineering and a college is perhaps the most crucial decision in a student's professional life.

# What are the factors in selecting a college and a branch of engineering? Factors for selecting a college

- 1. Management
  - Background of management
    - ✓ Strong academic background
    - ✓ Vision of the management in recruiting Principal, Deans, Heads of the Departments (HoDs) faculty and staff
    - ✓ Academic freedom given to all
    - ✓ Willingness to travel extra mile for providing quality and ensuring the same
  - Background of Principal, Deans and HoDs
    - ✓ Institutes where Principal, Deans and HoDs have studied and worked earlier.
    - ✓ Vision of Principal, Deans and HoDs and their Passion and Commitment towards providing quality Teaching Learning Process
    - ✓ Connectivity of Principal, Deans and HoDs with Industry and Recruiting companies for strong industry institute interaction to provide more placements, internships, guest lectures etc

#### 2. Infrastructural Facilities

- Laboratories: Hardware and Licensed Software Available
- Library: Ambience and Learning Resources available
- Classroom Ambience: Most crucial as students spend nearly 40 periods per week and comfortable seating posture is very critical
- College Ambience: Very critical as students should feel happy to spend their time on campus
- Canteen: Another critical place in the college that provides good food with hygiene and is also a place for students to relax and discuss various aspects that would promote learning from peers
- 3. Faculty and Mentoring System
  - Qualifications and Experience: Number of PhDs available in each department. Another important parameter is from which university the faculty have obtained their PhD.
  - Motivation/Seriousness and capabilities of Faculty to inspire students to do well
  - Leadership in the College/Department to enhance students' capabilities
  - Mentoring of students (One faculty for every 17-18 students, who continuously nurtures and monitors student's progress, giving guidance on all academic, employability and career issues)
  - Mentoring Capabilities of Faculty to mentor students, which requires faculty with vast experience (Average experience of faculty is critical, must be about 10-12 years at least) matters a lot.
  - Mentoring of students by Deans, HoDs, Principal and Management on a need basis (At least twice in a semester)

# **Geethanjali College of Engineering and Technology**

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- 4. Training for Employability
  - Commitment of management to provide training for enhancing employability of students
  - Organizations through which employability skills are provided
  - Training of students on aptitude, situational writing and programming skills to significantly improve their employability
- 5. Placements in the last three years
  - Number of Placements made versus number of students admitted in the college
  - Number of Companies visited the campus
  - Number of core companies visited the campus
- 6. Enhancing critical thinking and programming skills of the students for improvement of employability and betterment of students' professional career
  - Faculty enhancing programming skills of the students through project based learning
  - Availability of faculty with industrial and teaching experience to ensure this
  - Research Projects sanctioned by various funding agencies so that faculty and students are involved with these projects
  - External agency for improvement of programming skills of students
  - MoU with Wipro for enhancing programming skills of Three hundred students by Wipro Trained faculty
- 7. Career Counseling to Students
  - Career Guidance Cell and its Leadership to make the students always focus on their Career Goals
  - Leadership of the college that motivates students, discusses about the various avenues that open up for students and on how to get in those careers
- 8. Co-curricular and Extra Curricular Activities
  - Leadership of the college promoting these activities since they promote holistic education and overall development of the student

#### **Selection of Branch**

- A. **All branches have "scope for excellent career".** We have numerous flourishing businesses and well-paying careers in all disciplines, including circuit branches, non-circuit branches. One may please note that a vast majority of CSE graduates in the country do not have decent jobs. Why? It is because there exists an enormous number of CSE graduates who are churned out and a large number of them have **NOT** done well in their engineering. Their programming skills are pathetic and so also logical reasoning and critical thinking abilities.
  - If one does study in a college that doesn't have good faculty, with too many sections in a branch of engineering, a good branch is definitely **NOT** going to help. Further, the so called "good branches" with "enormous scope for excellent career" usually are overcrowded, since almost everyone has been joining that branch. Towards the end, in ten years down the line, it is extremely difficult to predict which branch of engineering would have the "highest scope for excellent career".
- B. Many Engineers Change their field as their career progresses. Many metallurgical engineers and chemical engineers are in computing/IT industry, some mechanical engineers are into banking and

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finance, and some of them are film directors, and computer science engineering graduates are in the insurance industry doing non-computer science stuff. In a vast majority of the cases, it is quite often forgotten from which branch of Engineering one has graduated after Five to Six years of graduation.

- C. One aspect relevant is, which branch the student is interested in, and his capabilities to pursue the same. This is of some importance. Although students say that they are interested in Mechanical/Automobile/Computer Science, etc, one has to admit the fact that they have absolutely "no idea" what any particular branch of engineering involves and offers "good professional career".
  - i. At this stage, if one is NOT comfortable with Physics, that is the student doesn't have strong fundamentals of physics, such student should NEVER enter into branches such as "ECE, EEE, and Mechanical".
  - ii. If one is NOT strong in Mathematics, that is student's fundamentals are NOT all that sound in Mathematics, such student should NOT opt for "ECE and EEE".
  - iii. If students have a penchant for logical reasoning but NOT strong in Physics, but have reasonable interest in Mathematics should opt for "CSE".

It is very important to judge one's capabilities before choosing a branch and NOT to be veered away by the influence of friends and relatives.

#### Regarding importance of the College

The initially established IITs, many IIITs, and BITs Pilani, are definitely far superior to many other engineering colleges. Most NITs are better than many state/university engineering colleges, perhaps except a few. A few Deemed universities are also better than many self-financed engineering colleges as their infrastructural facilities are far better and their placements track record is also exceptionally good. Further, students from all over the country study there and that facilitates a much better peer learning group.

Better colleges usually have better systems of education, better quality of faculty, and better "resume value", a factor that would carry the students for quite some time even after graduation. Further, in better colleges, peer learning group is good, that is student will have better classmates, which indeed matters in the short term to medium term, since better classmates means "more influence of friends who are interested in their career building, and doing great things". Another crucial factor of better peer learning group facilitates a "Network" of friends that one would build, which is of "Great Value" in the long term of one's professional career.

If one is getting a "not so good branch" by market standards, in a "very good college", versus a "good branch" in a "not so good college", one should definitely choose "the not so good branch" in a "very good college". However, if the colleges are at reasonably comparable level, then one should go for the "better" branch, again "better" by "market standards".

Please NOTE that irrespective of the college, if one is highly self motivated, can do very well. **However, if one** has a choice, then choose a college that has more highly qualified and experienced faculty, better infrastructural facilities, over better branch.

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In case, if one gets into a college that does not have many highly qualified and experienced faculty, not great facilities, one must then work hard, ignoring everything, and try to get help from peers studying and doing well in other colleges, and guides/mentors/projects from industry from the very first year of engineering itself.

Of course, towards the end, the answer in my perception is, College is more important than Branch of Engineering and I am saying this with my vast experience of 36+ years both in India and abroad.

