

# Relevance of Transformation in Engineering Education to churn out today's Engineers

1. Dr. M. Madhusoodanan Nair, Principal, K G Reddy College of Engineering and Technology, Chilukoor(v), Moinabad(M), R.R (Dist.), HYDERABAD, T.S. – 501504, Mail Id: [principal@kgr.ac.in](mailto:principal@kgr.ac.in)
2. Prof. K. Umashankar, K G Reddy College of Engineering and Technology, Chilukoor(v), Moinabad(M), R.R (Dist.), HYDERABAD, T.S. – 501504, Mail Id: [umashanker@kgr.ac.in](mailto:umashanker@kgr.ac.in)

## ABSTRACT:

Globally, the research / discussion / experimentation are taking place to transform the Engineering Education. As a result, the pedagogy in Engineering Education witnessed dramatic changes in the last decade and to some extent we could improve the Quality. Even then, the Engineering Education in India is concerned; we could not achieve anything commendable. There are certain reasons for the failure.

In Indian context, the Engineering Education became a Fashion among the parents and students. Most of the students joining in Engineering are done so due to this fashion and not because of passion.

The aim of this paper is to transform the Fashion to Passion among the students to achieve success in their professional career after completion of their Engineering Education.

**KEYWORDS:** Transformation, Engineering Education, Fashion, Passion, Pedagogy

## 1. INTRODUCTION:

The present day Engineering Education in India is going through a turbulent period. The number of Colleges and Universities offering Engineering courses and thereby number of seats in Engineering are increased abnormally.

The governments had a vision that no student should be deprived of Engineering Education due to non availability of seats. In other words Technical education should be reachable and affordable to any who desires to do.

The policy is well appreciated and received by one and all. But the present situation is that there are lakhs of Engineering Graduates floated in the market and are unable to settle in a suitable profession / job as they do not have the requisite quality in terms of sound knowledge, skill set, communication skills, attitude etc. As usual the blame games are on. No one is willing to take the responsibility for such a situation. In this context only one should seriously think about the “Transformation in Engineering Education” in India.

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pedagogy in Engineering Education witnessed dramatic changes in the last decade and to some extent we could improve the Quality. Even then, the Engineering Education in India is concerned; we could not achieve anything commendable. There are certain reasons for the failure.

1. It has become a fashion among the parents and students to do Engineering. Most of the students joining in Engineering are done so due to this fashion and not because of passion.
2. As such the students are not interested to learn the Engineering concepts and related skills. Once such an attitude is developed, no matter whatever steps the Educators adopt, may not produce any change. At the end of the course they may have a degree with them which is of no use.
3. Hence the herculean task on the Educators is to create passion for this Engineering course by inducing interest in the contents of the course.
4. The real Transformation is required at this stage to transform the Fashion to Passion. If successful, the rest of the things are guaranteed.

## **2. HOW TO DO THIS?**

For the bright students, we may use different teaching learning methodologies, to name a few, Project Based Learning, active learning, Cap Stone method of learning, Peer Group study, Field trips

etc. Whatever methods we adopt, the students will learn. For other students who have joined in engineering as a fashion without having any vision or goal the educators have to create interest in the Engineering subjects. For this we had taken up a pilot project in which the students were pooled and handled. The results were unbelievable. It shows that, if handled properly, patiently we the educators can bring drastic reforms in Engineering Education.

## **3. EXPERIMENT:**

We selected 50 students from the III Year B. Tech Computer Science Engineering. The selection is based on their regularity, attendance, mid marks, performance in the previous Examinations, attitude, behavior and interest in studies.

We interacted with each of those 50 students individually to understand his/her socio economic background, parents' profession / number of educated people in the family, whether they are capable to guide them properly or not, to understand their personal problems, study habits, the reasons for their poor performance in Academics. After analyzing these, an action plan is made to provide the Engineering Education to them in such a way that they should master the subjects like other students. The result of this project revealed that all students who have passed the Class twelve and joined in ENGINEERING can excel in his/her career.

The outcome of this study will be presented as a full paper as titled in the ICTIEE –2015 at Bangalore.