

## INDUSTRY INSTITUTE INTERACTION; A GLOBAL PERSPECTIVE

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### Abstract

Today in the era of “Liberalisation, Privatisation and Globalisation”, the level of competition faced by engineering graduates in any discipline has become global in general and national in particular. Gone are the days, when jobs were available to engineering graduates either in their own states or in some other states. This paper reveals that till 1990 a large chunk of jobs for engineers were available either in govt. departments or in public sector undertakings. In those days multinational corporations were not present in India. Since last decade a large number of engineers belonging to the fields of Computer Science & Information Technology branches have gone to the U.S.A. and other countries and they are working in Software industries there. This phenomenon clearly depicts the need for preparing our engineering graduates to suit to the requirements of industries at the global level.

**Key Words:** - 1. Technologies, 2. Interactions, 3. Industrial consultancy. 4. Industrial training. 5. Professionals. 6. Engineers.

**Sub Area:** - Technical Education.

**Broad Area:**- Applied Engineering

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### 1. INTRODUCTION:-

Advanced technologies, new techniques and sophisticated equipments/products are being developed at a faster rate than ever before. The future belongs to those who can anticipate and are prepared to deal with the emerging technologies and changing requirements of business and industry. Appropriate technical education and training are the essential ingredients, which enable the technological manpower to meet the challenges of the modern day industry. In our country, it is being felt that the prevailing practice in the technical institutions is not in conformity with the requirements of the industries. Hence, a better interaction between the technical institutions and industries is absolutely essential for producing the right type of manpower to sustain and promote the industrial growth.

## **2. EXPECTATIONS OF THE INDUSTRIES:-**

For an “industry to survive in the stiff competition in the present day global economy, it becomes, a foremost priority to be in position to deliver the services and quality products at reasonable cost. This is achievable only if the persons handling the job have the following competencies in terms of latest knowledge, skills and attitudes.

Understanding of the basic concepts, principles, laws, procedures and practices in the relevant standard in the field, specification and requirements of the material employed, relevant standards in the field, principles of design for development, innovativeness, basis principles of management and safety measures to be adopted, in absolutely essential for the engineering graduates.

## **3. PRESENT SCENARIO IN THE TECHNICAL INSTITUTIONS:-**

A perusal at curriculum of different institution will reveal that contents in general are obsolete and outdated, as far as the knowledge about latest innovations are concerned, and are not of much relevance in the field practices. In general curriculum is not updated as frequently as fast changing technological developments demand. Many factors are responsible for this situation, namely the bureaucratic set up at the institutions causing redtapism; the financial constraints; the framers of the curriculum themselves are not aware of latest developments in the technology; the service conditions, and salary structure of the faculty are less attractive as compared to their counterparts in the industry.

## **4. THE INDUSTRY-INSTITUTION LINKAGE:-**

It is being strongly felt that this gap should be bridged by arranging frequent interactions between industries and institutions. Following of same suggestions, which if implemented properly can result, is better interaction between the two.

### **4.1 Curriculum Development**

It is suggested that the board of studies in various universities handling the curriculum should include members from academics and the experts from the industry. The outcome of such collaboration is likely to result in development of competencies with which the students will be able to meet requirements of the industry more effectively. Such collaboration will be of a great help in the development of skills in non-engineering areas as well as human relations, effective communication skills etc.

### **4.2 Consultancy Services offered by the institutions.**

The objective of establishing industrial consultancy in the institutions should be, to render the assistance needed by the industry in the field of design, maintenance, and testing etc. such consultancy services will be helpful in the following ways:-

- This will enhance to knowledge of the faculty in the relevant field and hence result in better teaching.
- This will boost the morale of the faculty and result in better competence and confidence.
- This will generate finances in institutions, which can be utilized for greater developmental activities of the institutions.
- This will supplement the income of teachers resulting in attracting the better brains in the noble profession of teaching which of late has been loosing its luster and has failed to attract top notches from various disciplines.

- This will make the job of teaching more challenging.
- In order to get their consultancy work the institutions should give wide publicity, about the expertise available in the shape of manpower, machines and projects already completed successfully, to the industries.

**4.3 Industrial Training of the Teachers:-**

- To give exposure to the teachers, of the working conditions in the field.
- Making the teachers familiar with new materials and processes in use, and the products manufactured.
- Exposing the teachers to the operation of sophisticated plant and equipment, which educational institutions can not afford to provide with limited financial resources.
- Enable the teachers to see the size and scale of operations in field.
- Making the teachers aware about the job responsibilities of the engineers.
- Enable the teachers to see the importance of communication skills.

**4.4 Industrial Training and Visit of the students:-**

The industrial training/visit should be planned for a specific purpose in consultation with experts of industry. The focus of the visit should be on the relevant topic in the classes.

**4.5 Project Work:**

It is observed that proper project work coupled with industrial training visit will enable the students to face the future problems of the industry with confidence.

**4.6 R&D Projects**

The institutions should undertake the R&D projects in collaboration with the industry.

**4.7 Continuing Education Program For the Benefit of the Industrial Professionals:-**

Technical institutions should survey the knowledge needs of the industry and arrange to impart the necessary instructions in the form of short-term course, workshops, and seminars for the concerned professionals, in collaboration with industry.

**5. CONCLUSIONS:-**

In order to survive successfully in this competitive world of technology, it is must that competencies required by the industries are continuously reviewed at the institutional level by continuously updating and implementing the revised syllabus after getting the feedback from the concerned industry. This necessitates the need for involving the industries in the curriculum development, imparting industrial training to the teachers and students, industrial visits, taking up consultancies, R&D projects and also by organizing continuing education programmes.

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