

Engineering Employability Skills Required By Employers in India

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Abstract: Engineering education is the activity of teaching knowledge and principles related to the professional practice of engineering. In today's scenario placement is a buzzing word. Students & parents prefer colleges & institutions which help their wards in placement opportunity by conducting campus placement. Purpose of this paper is to study the perception of employers as well as employees towards employability skills necessary for the entry level engineering graduates in companies. Employability can be defined as "doing value creating work and getting paid for it and also learning at the same time, enhancing the ability to get work in the future". There are end numbers of discussions & investigation on "What types of skills & abilities are needed at working places?". This learning attempts to look into engineering employability skills that have been required for the new engineers. The quality of the future engineers depends very much on the quality of engineering education, which is itself dependent upon developments in engineering curricula. This review paper will lay forward a list comprised of the skills needed by the employers of our country & will help to evaluate the available similarities & the difference of these enlisted skills. All these information's are gathered from the articles, journals, paper & reports. Over all the frame work suggest that the engineering graduates should acquire & demonstrate a set of generic skills such as Effective communication, Inter personal skills, Personal presentation skills, Technical knowledge, Leadership skills, Self assessment & Goal setting.

Keywords: Engineering graduates; Perception; Employability skills.

I. INTRODUCTION

Employability skills can be defined as the transferable skills needed by an individual to make them 'employable'. Along with good technical understanding & subject knowledge, employers often outline a set of skills that they want from an employee. For employers, getting the right people means identifying people with the right skills & qualities to fulfill the role & contribute to the organizations success.

Candidates may have the qualification & hard skills needed to be able to manage the job role but, without a well-honed set of 'soft skills', employers are less inclined to hire. An employer can benefit in many ways if he has soft skills such as; he will have strong communication, good association, confidence, Etiquettes, good inter personal skills etc.

Survey

Albert Einstein in simple word says that engineers identify a problem, and come up with a solution often creating something completely new in the process. Engineering is a profession directed towards the application & advancement of skills based upon a body of distinctive knowledge in Science, Mathematics & Technology [1].

Employability skills are very essential in the current global job market. Engineering is directed to developing providing and maintaining infrastructure goods & services for industries & for the community. Therefore our engineering graduates perceptibly need to have certain skills to help them to apply & to practice the knowledge efficiently at working place [2]. These skills can also be termed as soft skills [3]. In order to prepare engineers to meet these new challenges, engineering training & education must be revised & modernized [4]. The institutions play a very important role in developing the employability skills in their students by providing certain courses, seminars, workshops, industrial visit & practical. The objective of the paper is on the employability skills of engineer graduates in India.

II. EMPLOYABILITY SKILLS FOR THE GRADUATES IN INDIA.

India is one of the rising markets in the world. India's change from agrarian economy to an industrialized economy is lagging due to the lack of the skilled Labors [6]. Even in India which produces 400,000 engineers yearly corporations are searching it gradually more difficult to find the skilled workers they required [7]. It is found that 75% of the Indian graduates are unemployable [8]. There are a number of studies conducted in India to identify the employability skills of the students. The latest study conducted by the World Bank [9] points out that 64% of the employs say that they are only a bit satisfied with the performance of the engineering graduates in India [9]. These results points out the need for the accurate awareness & training among the graduates to develop their skills.

III. ENGINEERING EMPLOYABILITY SKILLS REQUIRED BY THE EMPLOYERS.

Employability skills can also be termed as soft skills.

Soft skills include:

1. Effective Communication
2. Inter personal skills
3. Personal presentation skills
4. Technical knowledge
5. Leadership skills
6. Self assessment &
7. Goal setting.

Soft Skills at workplace are most necessary assets for every professional or employee or manager or even business owner. Companies in India are finding that they have to promote people faster than ever before to meet their growth needs. At the same time, they are finding that the candidates do not have the necessary skills to make the transition from a technical or functional specialist to a team leader, supervisor or manager. Companies in the IT, BPO, KPO, Biotech, and Pharmaceuticals industries have found that their people need soft skills to work effectively in cross-functional or project teams, local teams or global teams.

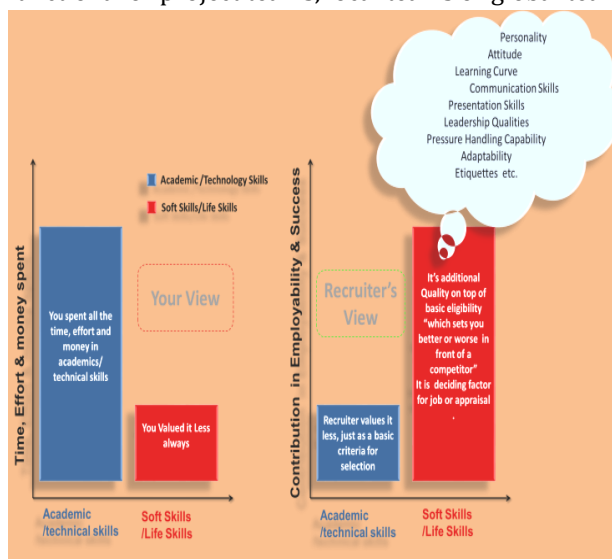


Figure no 1. Comparison between academic /technical skills & soft skills according to us & Recruiter's.

In the given figure no 1 It shows the importance of soft skills in any job according to the recruiters. We can say that hard skills are essential, required skills needed to perform a job. They include learning of technical as well as academic both related to your career or the profession. Hard skills are considered tangible skills

because they easily identified & measured with things like tests & exams.

Hard skills & soft skills both play different & important roles within your career. Hard skills are what will spark an employer's attention & get you an interview, while Soft skills will help you advance once you're part of the company. A person can't grow in his job without a combo of both the skills.

1. Effective Communication

Communication plays the most important role in any person's life as it's our basic need. Now a day's communication is the most important thing in a student as they are getting the opportunity to go abroad they need to have very strong & effective Communication. In the case of the Communication skills the following sub-skills can be taken into account.

- a). Ability to convey idea clearly, effectively & with confidence either orally or in writing.
- b). Ability to practice active listening skills & reply.
- c). Ability to present clearly & confidently in front of the audience.

2. Inter personal relation

An interpersonal relationship is an association between two or more people that may range from fleeting to enduring. This association may be based on inference, love, regular business interactions, or some other type of social commitment. It's the ability to recognize and respect others attitude behavior & beliefs. Five important interpersonal skills that an engineer should have are:

1. Communication
2. Creativity
3. Adaptability
4. Collaboration
5. Leadership

3. Personal Presentation

We say that first impression is always the last impression. Personal presentation is the way that a person dresses, the way a person styles his/her hair, the attitude that the person displays. Things required for presentation skills.

1. Dress smartly
2. Smile
3. Speak clear

4. **Eye contact**
5. **Be confidence**

4. Technical Knowledge

Technical skills are those abilities acquired through learning and practice. They are often job or task specific; in other words, a particular skill set or proficiency required to perform a specific job or task.

5. Leadership skills

Leadership skills are the strengths and abilities individuals demonstrate that help the watch overprocesses, guide initiatives and steer their employees toward the achievement of goals. It's also the ability to lead a project & knowledge of the theories of leadership. Leaders carry out this process by applying their leadership attributes, such as beliefs, values, etics, character, knowledge & skills.

6. Self assessment

Self assessment is an evaluation of one's own abilities and failings. This shows shows your strengths & weakness within you.

7. Goal setting

Goal setting is the process of identifying something that you want to accomplish and establishing measurable goals and timeframes. When you decide on a financial change to save more money and then set a certain amount to save each month, this is an example of goal setting.

IV. IMPORTANCE OF SOFT SKILLS IN OUR LIFE IS AS FOLLOWS.

1. The student can get better job.
2. Good association.
3. Good healthy environment.
4. Peace of mind.
5. Positive attitude.

CONCLUSION

The conclusion point toward this review paper is a strong need for the awareness among the graduates to know the employability skills required by the Global Talent market.

Analysis of the statistics through this survey suggests that the most essential generic skills & attributes of a modern engineer are technical knowledge with skills & his Positive Attitude. We cannot blame directly to the engineering graduates for this reason. It's very much needed to update the syllabus at regular interval to provide the need of the companies. Also that there should be strong well plans to train our young engineers according to the needs of the companies. It's essential to increase the industrial contacts. This will assure regular supply of the talent to the global talent workforce. This country has published reports on the necessary frameworks of employability skills to prepare engineering graduates for the employment today and in the future. Overall, the studies suggest that the engineering graduates should opt and demonstrate a set of basic skills such as Communication skills, Strong basic, Interpersonal skills, problem solving and good Presentation skills. This review paper tries to search the various employability skills that employers require from job aspirants while hiring students & the reasons for the low level of employability skills among students. These skills are prerequisites for employability.

REFERENCE

- [1] UICEE-METU Collaboration in Research and Engineering Education
- [2] Engineering employability skills required by employers in Asia.
- [3] Sustainable employability skills for engineering professionals.
- [4] The essential skills & attributes of an engineer: A comparative study of academics, Industry Personnel & Engineering Students.
- [5] Employability skills – A study on the Perception of the Engineering students & their prospective Employers.
- [6] The skill development landscape in India & implementing quality skill training. FICCI, ICRA management consulting services limits, August 2010.
- [7] Replacement migration. UN population division 2009.
- [8] (2005). Talent shortage survey. Mckinsey-NASSCOM.
- [9] Andreas Blom, H.S. (2011). "Employability & skills set of newly graduated Engineers in India" World Bank.
- [10] The comparison on priority engineering employability skills
- [11] <http://timesofindia.indiatimes.com/topic/employability-skills>
- [12] www.dnaindia.com/india/report-only-34-of-graduates-are-employable-survey-1933055

- [13] https://www.researchgate.net/publication/257714240_Importance_of_Employability_Skills_from_Employers%27_Perspective.
- [14] <http://www.kent.ac.uk/careers/presentationskills.htm>
- <http://www.skillsahead.net/soft-skill-trainings/>