ROLE OF ACADEMICIAN IN INNOVATIVE CURRICULUM PRACTICES FOR ENGINEERING EDUCATION

Dr.M.D.Kokate[1], A.D.Pawar[2], D.S.Dhake[3]

[1]Principal, SNJB Late K.B.Jain College of Engineering, Chandwad.

[2,3]Assistant Professor, Dept. of Applied Science, SNJB CoE, Chandwad

ABSTRACT

The changing scenario of industry has brought a revolution in education sector. The research study says the employability skills for engineering graduate are the key issue for seeking employment. This paper examines the importance of innovative practices and its implementation. The process of constructing unique curriculum for Skill development will meet the society's needs. The Curriculum renovation should be realistic and student-centric.

Key words: Skill Development, innovation, employability

Introduction

The prospect of nation depends on the contribution of skilled employees towards the progress of nation. The enhancement of nation also reflects with the employment generated for professional and technical experts. As these manpower or professionals contributes for the Gross Domestic Product (GDP) of nation. With the view of its importance, the government has also taken initiative for promoting such young professionals in the name of "Skill Development Program" who will generate the value based outcome. The profession of engineering constructively hunts for diversified talent who could examine the impact of curriculum and industry practice by focusing on disciplinary skills like project management, group dynamics, team building, and leadership.

The role of academician plays a vital in defining, and implementation of such skill oriented curriculum for the upliftment of students. The innovation in engineering education ensures that the courses transform the learners from student to job seeker by imparting new skills and abilities through science and technology. The innovative practices in curriculum enhances the students from learning centric to research-centric through understanding real time problem and its solution. Hence, to address on the current issue the various higher education institutes are taking initiative to make professional more skill centric rather than theory-centric. Even various Skill based training programs have been imparted by professional trainers to students. These programs are conducted regularly as a way to promote the skills and bring out hidden talents from students.

Key Reasons

The survey report of various organizations has highlighted the deficiency of employability skills among engineering graduates. The key reason for seeking under-employment of technical graduates are due to lack of subject expertise, fundamentals managerial skills, poor communication, attitude, confidence and team building, Low grades and low levels of academic accomplishments, lack of goals, Lack of enthusiasm, Inadequate preparation for type of work, poor domain knowledge. Hence it is the major area of attention towards which the academicians has to work out for overall development of students.

The study says 17.91% of engineers were employable for the software services sector, 3.67% for software products and 40.57% for a non-functional role and 3.84% for business start-ups (Source: National Employability Report, Engineers Annual Report 2016)

Initiatives' in Curriculum practices

The education institutes can initiate unique efforts through developing and deploying their framework for skill development of students.

The basic common activities which most of the institute can undertake are stated below that will boost employability of the students and prosper the nation.

1) **Communications skills** forms a part of the soft skills that enhance reading, writing, speaking and listening among students for expressing their ideas, view, values and belief. The communication skill also enables for better understanding among thoughts and perception.

2) **Employability skills**: In a study by Jacquelyne Robinson (2000)[5] available in the public domain, employability skills are those basic skills necessary for getting, keeping, and doing well on a job. These skills are also called as core skills. Employability skills are generic, ie, applicable to all jobs anywhere. There are six basic skill sets recognized as employability skill sets.

3) **Numerical skill**: The technocrats are expected to understand and resemble with numerical skills for analyzing real life problems and bring out working solutions. This skill helps to read out the problem and analytical approach for presenting the problem with supporting solutions. This attribute helps to bring appropriate decisions. Both language skills and number skills constitute the basic skills.

4) **Team Management Skills:** The development of team management skill is more important in today's dynamic world as mobilization of manpower results to work with various team or group on the assigned projects. It includes team dynamics, role play activity, and conflicts management.

5) **Computer Skill Competency:** The era of technology has found importance in all jobs and made every individuals to get acquainted with basic computer skill set The work place is getting modernized which compels experts to work around the clock with the use of modern technology like computers, laptops and other gadgets. The presentation is work is expected in the form of reports, presentation, statistical tabulation with usage of various software tools.

6) **Inter-Personal Skills :** The most important area of attention for grooming students in by developing inter-personal skill. It includes Time Management, Etiquette, Attitude, Learning behaviors, Body Language (Gestures and Posture)

Role of Academicians

As it is said, "we the self are best teacher and student to ourselves". The role of academician starts from identifying the areas of improvement, defining the alternative, implementing the alternative and measure the performance of students

Action Plan

1) **Allocation of manpower.**
2) **Prepare Activity Calendar.**
3) **Budget Preparation.**
4) **Resource Allocation.**
5) **Execution In-house student activities.**
6) **Collect Feedback.**
7) **Measuring the outcome of activities.**
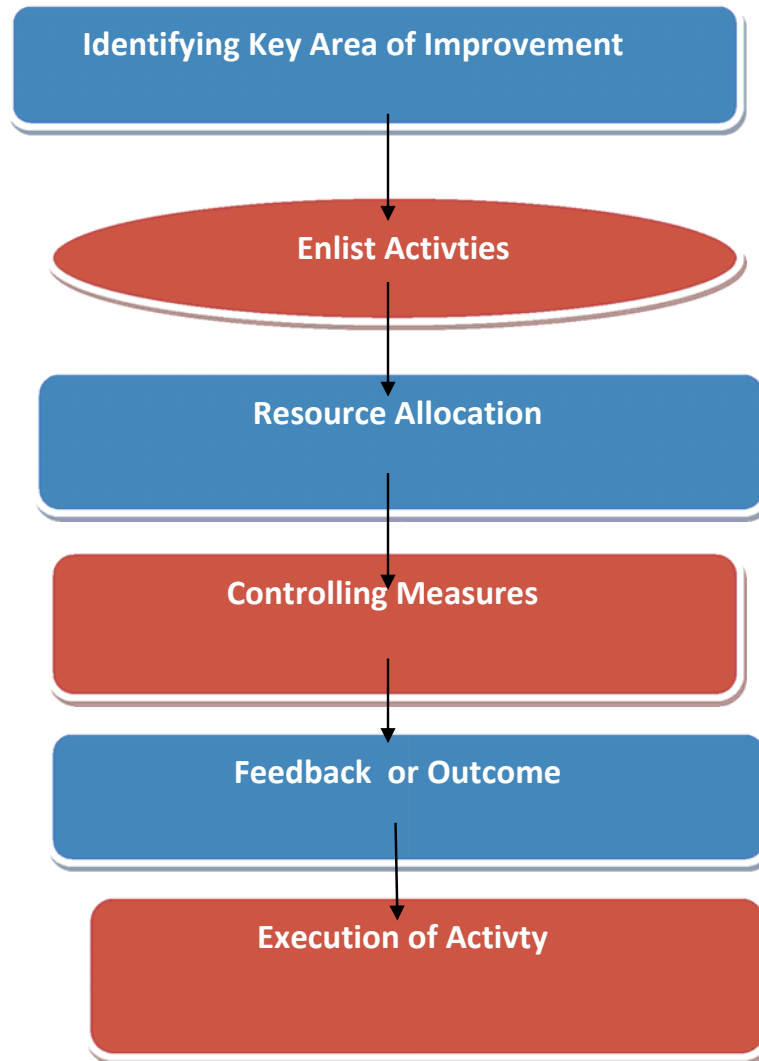
Activities/ Programmes

1) Skill Building Activities: Competition, Role-Play, Group- Activity

2) Student Driven programs: Communication Skills, Inter-personal Skills, Logical and Numerical Aptitude.

3) Real Time -Project activity: Numerical or Technical ability.

4) Orientation/ Refresher programs:

5) Induction Activity: Games, Fundamental/ Domain Skills

Conclusion

The outcome and career of technical and professional graduate relies on the employability skills which has not only become essential but vital for building a successful career in employment. The fall in the employability of young graduates has focused the alarming situation for academic institutes and industry. The development of students through skill building program can bring a value addition to the institute-learner profile and industry need. The outcome of which results to eliminate or atleast minimize the gap between industry and institute product. The paper provides institutional framework model for skill building and suggest various activities and strategies that explicit the modern challenges faced in global employment market. The conclusion can be stated that the development and deployment of successful plan of skill development oriented activities will bring sustainability of engineering education, Academic programs, policy formulation and employability.