

# INDUSTRY-INSTITUTE COLLABORATION FOR INCREASED EMPLOYABILITY IN TECHNICAL EDUCATION

Dr. N.Sambasiva Rao  
Prof. of CSE & Principal  
Sumathi Reddy Institute  
of Technology for  
Women, Warangal,  
Telangana, India  
[snandam@gmail.com](mailto:snandam@gmail.com)

Dr. A.Vinay Chandra  
Head of H&Sc,  
Sumathi Reddy Institute  
of Technology for  
Women, Warangal,  
Telangana, India  
[vinaychandra.a@gmail.com](mailto:vinaychandra.a@gmail.com)

Dr.N.Srivani  
Asst.Prof, Dept. of  
H&Sc,SR Engineering  
college(Autonomous)  
Warangal, Telangana,  
India  
[srivaninana@gmail.com](mailto:srivaninana@gmail.com)

Mr. K.Narender Reddy,  
Asst. Prof. Dept of EEE  
Sumathi Reddy Institute  
of Technology for  
Women, Warangal,  
Telangana, India  
[kdk.reddy@gmail.com](mailto:kdk.reddy@gmail.com)

**Abstract—** The great concern to Technical Education Institutes (TEI) is the issue of graduate employability, particularly in the face of the current global financial crisis. Facing a contracting and fiercely competitive job market, TEIs are under increasing pressure to ensure that their graduates are employable. One of the major challenges in producing such graduates is to ensure that they have the relevant knowledge, skills and attributes required by industry. Complaints from industry about graduates not being ready for the workplace is a global phenomenon, and one of the best ways to bridge the gap between class and work is to collaborate with industry. The need for such collaboration requires Technical Education Action Plan and the setting up of industry linkage centers on campus. At the TEI's, industry input and collaboration in teaching and learning (e.g. on curriculum advisory boards, as guest or visiting lecturers), research and innovation (e.g. joint research projects, consultancy, commercialization of research output), and the training of staff and students has to be done along with the academic schedule. This paper focuses on TEI-Industry collaboration in the training of undergraduate students via the preparatory programme for industrial training and the student industrial training programme.

**Keywords—***Technical Education Institutes, TEI-industry collaboration; graduate employability; industrial training.*

## 1. INTRODUCTION

The Student Industrial Training Programme in TEIs, refers to a programme, which provides supervised

practical training within a specified timeframe. This training can be carried out either in government or

private organizations. The main aim of the Student Industrial Training Program is to produce graduates who are equipped with theoretical knowledge and practical job-skills. The programme provides an opportunity for undergraduates to enter the world of work, exposing them to industry-relevant knowledge and skills, and making them more aware of the expectations and requirements of industry. It also gives the trainees direct contact with industry personnel, which could help them secure employment upon graduation. The aim of this programme is to provide students with relevant on-the-job training, thus enhancing their employability.

In general, some form of industry-related training is compulsory for students pursuing professional courses particularly engineering. In all degree programmes industrial training has to be incorporated as a compulsory component of the programme in line with academics on enhancing the employability of the graduates.

## 2. START-UP PROGRAMME FOR INDUSTRIAL TRAINING

Prior to embarking on their industrial training programme, students are required to attend preparatory programmes comprising corporate seminars and soft skills, workshops conducted by industry specialists. These programmes are aimed at providing students with insights into the needs and expectations of the world of work as well as preparing them to make the transition from campus to the workplace.

In general technical seminars aims at exposing students to the needs and expectations of employers, how

to make the most of their internship, and internship opportunities abroad, while the workshops focus on areas like: self-presentation (e.g. grooming, marketing oneself through resumes and at interviews), communicating at the workplace (e.g. English at the workplace, interpersonal skills), attitudes and attributes (e.g. motivation, dealing with work stress, time management, teamwork, leadership skills) and thinking skills (e.g. problem solving, thinking out of the box).

### 3. INDUSTRY INVOLVEMENT IN THE PREPARATORY PROGRAMME

To ensure that students get the best possible pre-industrial training input, partnership with industry is necessary to obtain a large base of speakers and workshop facilitators from industry who are willing to share industry's needs and expectations, and their expertise and experience with the students. The speakers and facilitators should comprise Human Resource personnel, managers, entrepreneurs, and actual trainers.

Partnership with industries will help the students to have interaction with the CEOs of multinational companies presenting talks on leadership. The hands-on training and talks by industry offer students a preview into the world of work, and help prepare them for their industrial training. This training supports the existing curriculum, where soft-skills are embedded and evaluated in undergraduate courses and also enhances the language and entrepreneurial courses that students have to take. TEIs should also conduct a pre-employment programme for graduating students to further increase their chances of obtaining employment upon graduation. This programme should consist of a one-month intensive English language course coupled with Information and Communication Technology and soft skills training followed by a three-month job training with a local industry. The three months training is another instance of a successful partnership with industry towards increasing the employability of graduates.

Participating in such preparatory programmes enables students to acquire useful knowledge and skills, inadvertently leading them to embark on their industrial training programme in a more confident and positive manner, especially since they would have already obtained some input on what to expect and how to perform during training

### 4. REACHING OUT TO REQUIREMENTS OF A LARGER POOL OF COMPANIES

The Industrial Training Programme at TEIs also benefits the industries which are associated. Membership

of these associated industries enables TEIs to have an easier access to a larger pool of organizations, and is an excellent platform for networking and forming partnerships not just for industrial training placements but other forms of collaborations, such as faculty attachment in industry and vice versa.

These associated industries have to form a committee, to help to match students and staff with member companies. The committee, which comprises representatives from institutions of higher learning and industry, meets regularly to discuss issues and concerns relating to academia and industry with a particular focus on bridging the gap between the two parties.

### 5. CONCLUSION

This paper describes how TEIs embarks on partnerships with industry to strengthen two of its programmes: The Student Industrial Training Programme and the Preparatory Programme for Industrial Training. For the former, partnership with industry is sought to find placements for students.

In addition, partnerships with industry also enable TEIs to enhance the industrial training programme by developing alternative models for industrial training, reaching out to a large database of companies through its membership in Chambers of Commerce and securing industrial training placements abroad. Such partnerships provide much needed on-the-job training for undergraduates, which in turn makes them more employment ready and enhances the competencies that employers look for including interpersonal skills such as integrating with people forming culturally diverse backgrounds, thinking skills, problem solving skills, ICT and positive personal qualities like responsibility and integrity". Having such skills is an essential tool to obtain and maintain employment. To ensure that the skills or competencies are aligned with the needs of industry, a close working relationship with industry is imperative.

Industry's participation is also sought to prepare students for industrial training to prevent them from embarking on it without prior knowledge of what to expect and how to project themselves in a work environment. Exposure to industry personnel through the seminar and workshops also helps to build students confidence in communicating with various personnel at the workplace during their industrial training. More importantly, these preparatory courses supplement those embedded in the degree programmes, and enhance the soft skills and job competencies of the students, and undoubtedly, no one would be in a better position to conduct these courses than industry itself.

Partnership with industry in both the Industrial Training and Preparatory programmes provides industry with the opportunity to realign some of the mismatches between products of TEIs and industry's needs and expectations of graduates. Such partnership is a move away from academia-industry playing the blame game to a win-win situation for both parties who eventually need to take concerted efforts in the development of human capital of the nation.

## REFERENCES

1. Victorian Institute of Teaching. (2008). The Victorian teaching profession code of conduct. Melbourne, Australia: Victorian Institute of Teaching.
2. Hugman, R. (2005). New approaches in ethics for the caring professions. Basingstoke, UK: Palgrave-Macmillan.
3. Collins, A. B. (2001). Gateway to the real world, industrial training: dilemmas and problems. *Tourism Management*, 23, 93-96.
4. Cruz, A. F. (2003, August 19). Jobless graduates lack critical skills, *New Straits Times*. Retrieved August 20, 2003, from <http://www.nst.com.my>.
5. Industries and educators should forge partnership. (2008, March 5). *Bernama News*.
6. Retrieved March 5, 2008, from <http://web5.bernama.com/events/iftido>
7. Jones, L. K. (1996). Job Skills for the 21<sup>st</sup> Century: A Guide for Students. Retrieved September 24, 2008 from <http://www.careerkey.org/english/>
8. Campbell, M. (2009). Learning in early-career police: Coming into the workplace. *Asia-Pacific Journal of Cooperative Education*, 10(1), 19-28..