

Recent Trends and Challenges in Campus placements of Engineering Institutions

Neelakantappa B.B¹, C.S.Suresh Babu², Uma Boregowda³ A.M.Vinod⁴

¹Associate Professor & TPO, Department of Computer Science and Engg, Malnad College of Engineering, Hassan, India.

²Associate Professor, Department of Instrumentation and Engineering, Malnad College of Engineering, Hassan, India.

³Professor, Department of Information Science and Engineering, Malnad College of Engineering, Hassan, India.

⁴Assistant Professor, Master of Computer Applications, Malnad College of Engineering, Hassan, India

¹bbn@mcehassan.ac.in

²css.acharya@gmail.com

³bu@mcehassan.ac.in

⁴vinutaurus@gmail.com

Abstract: Campus placement is a buzzword these days in most of the university colleges, especially in engineering institutions. Students, parents, faculty and even the management consider the placement as a vital parameter in judging the quality of the institution. Further from the students' perspective, it is good and safe to get placed in some company in the campus itself. The reasons are twofold. Firstly, high competition in off-campus placements and the second is the recession due to economic and business fluctuations in a global scenario, which obviously decreases the number of employment opportunities. In an attempt to address these challenges, few innovative steps were taken to increase the number of placements. The outcome of this resulted in all time record placements in our institution. In this paper, challenges faced in placements and certain remedial measures to meet the same are discussed.

Keywords: placement, recruitment, institution

1. Introduction

In the recent past, there is lot of significance given to campus placement. It is the program conducted within educational institutions or in a common place to provide jobs to students pursuing or in the stage of completing the programme. The steps generally followed in campus hiring are - pre-placement talk, online tests, group discussion, technical interview, Human Resources(HR) interview and post-placement address. Industries visit the colleges to select students depending on their ability to work, capability, focus and aim. The major objective of campus

placement is to identify the talented and qualified professionals before they complete their education.

The students are very passionate to participate and get placed. Immediately after completing their pre-final year of graduation, the colleges start preparing the students for facing the placement process. The colleges invite the recruiters and drives are conducted. The total percentage of students getting placement is very precious to the institution, as this will become one of the major factors affecting the next academic year's admissions. The one objective of every institution is to increase the number of placements. For many institutions, this is the matter of survival too.

The National Association of Software and Services Companies (NASSCOM) predictions on placements are also slightly threatening. As per the surveys, studies and observations made by this non-profit business organization, IT industry will see 20% less recruitments in near future, as major players like TCS, wipro, Accenture, Tech Mahindra, Mercedes Benz, Robert Bosch, Infosys are focusing on more automation. In 2016 June, the IT industry body had predicted that \$143-billion domestic software industry might hire 2.3 lakh fresh graduates in 2016-17, down from 2.95 lakh during last fiscal. According to NASSCOM chairman C. P. Gurnani, who is also the chief executive of Tech Mahindra, the drop in recruitment would not impact the revenue growth which is pegged at 10-11% in the current financial year. But the impact is on the future of huge number of engineering graduates. There will be frequent fluctuations in the placements due to recessions. Keeping the placements almost stable every year is a big challenge to the placement officers.

The general problems faced to improve placement and possible measures taken to address the same are presented in the following sections.

2. Literature Survey

Neelakantappa B B

Computer Science and Engineering,
Malnad College of Engineering, Hassan
bbn@mcehassan.ac.in

Placement activities allow students to develop transferable skills, and amplify their confidence and maturity. It plays a vital role in enhancing their career development and employability scenario.

In the view of improving the ratio of admissions to placements a new method known as Lean Six Sigma was adopted in the institution considering all the necessary parameters. It was observed that the sigma value changed considerably indicating the rise in admissions in the institution[5]. To improve the student employability, industry and academia introduced Work Integrated Learning (WIL)[3].

Students were given opportunities to undergo industry training/projects of 12 weeks. This enabled students to get exposed to realistic industry experience, gain knowledge/business sense, writing/communication skills, work principles and interpersonal skills. Identically, an institution in Victoria has adopted an approach of making students to undertake capstone subjects Professional Communications and Industry Projects focusing on the completion of industry projects. Students benefit from the exposure to real-world job markets and understand the current ICT industry skill necessities and demands. It is observed that this type of program had made significant contribution to improve the students' employability skills and their life-long learning skills[7].

It is essential to identify the gap between industry and educational institution so that when reduced, increases the placements in the institution. Thus, students are given university-industry based multidisciplinary project of designing an educational tablet. This helped students to enhance their technical, professional and communicational skills[2]. To strengthen the partnership between academia and industry, students are motivated to take up industry projects and research having industry experts as their advisors [1]. This kind of experience is found to be beneficial, and builds on the project-management and problem solving skills typically gained at industry, with the ability to work collaboratively.

In addition, it is essential to identify some key attributes that recruiters really look for in students while absorbing them for their company. Along with technical, analytical, communication skills, for which students rigorously prepare, they should even possess some key attributes like enthusiasm, personal ethics, integrity, ability to change, fitment with corporate culture [6]. To speed the process of placement activities like identifying the eligible students, generating mail and sending them, maintaining the student details, an android app is also being developed which automatically handles the complete process, thus easing the process, which instead was done manually [5].

Past research reveals that academia-industry interface must be well-built to have good percentage of placements in a technical institution. It is indeed the most critical

differentiator for educational institutions worldwide. To achieve this, special initiatives are undertaken enhancing the level of placements in the organization.

3. Industry Expectations

Generally, every mass recruiting company prefers the very first slot for their placements with the belief that they get cream of students which is also true.

Few important aspects industry looks apart from knowledge of fundamental concepts, technical and soft skills are - attitude of the students at the time of visit of a company, issues in technical requirements in the campus and attitude of the Training and Placement Officer(TPO). The overall behaviour of the students is also observed in addition to this. Each company expects some arrangements like, auditorium with good ambience, audio-video arrangements with clarity, Wi-Fi connections in the whole campus, neat and tidy panel rooms for conducting the interview. Even if a minor deviation with any of these requirements, it's not tolerated by the company officials.

Students often avoid the pre-placement talk. Even if they attend, they would not be available on time. Also, they will be entering the presentation hall in a haphazard way. This irritates the presenter. Many students would not focus on the presentation. If the students lose interest in such talks, naturally the company representatives feel very bad and obviously they get a bad opinion on the institution and start thinking to reduce the number of offers. Punctuality of the students is to be improved.

4. Challenges and proposed Solution

Few important challenges in placement and feasible measures for them are outlined here.

a) **Eligibility Issues** - Students with marginal variation in the required cut-off percentage marks in qualifying examinations, face a problem. For instance, if the company's required cut-off percentage is 70, many students approach the placement officer saying "mine is 69.8, mine is just one percent less...." and so on. The placement officer must have ability to convince the company personnel. There may be occasions where such requests are obliged and the cut-off percentage is relaxed by one or two.

Another major issue is that normally every recruiter looks for 10th and 12th class marks which are completed by the time a student enters graduation. The only option that placement officer can do is to motivate them to improve score in graduation. There are fair numbers of cases with lesser percentage in either of 10th or 12th class, sometimes both but a very good percentage in graduation. So there is a need to create awareness among school children about the importance of percentage of marks in 10th and 12th.

b) **Communication** - Often students with a very good score, lack in their communication skills. Here many such candidates lose good opportunities. Reasons are many. Basically the medium of instruction in their school level is the prominent among these. Students with rural background having studied in English medium schools may fail to communicate effectively. The need of the hour is to strengthen them with professional English course that includes huge number of activities.

First level course may include fundamentals about grammar. The next level may include arranging- "pick and speak", group discussion, public speaking, essay writing and e-mail writing. This should not be a one-time activity. Constant involvement of students in these activities throughout their graduating period will definitely improve the required skills and students can confidently face the placement process.

c) **Dream Offer** - Often some smart students wish to attend the interviews of all visiting companies. After getting placed in one company, they start asking about the chance of participation in another. When the placement officer denies, they try to convince TPO saying that it is their dream company or salary package is more in this and lot more arguments may happen. But, it may be unfair to allow students to participate in all campus drives. Because, a group of students may get placed repeatedly and others lose opportunities. This may result in a kind of social injustice to deprived students and a challenge to TPO in handling the same.

One way to manage this kind of situations, is to frame rigid policies regarding this issue and practise the same strictly. Industries and institution representatives should discuss jointly and make a detailed hiring plan such that those with higher pay package should conduct the placements during the early slots and subsequently those with lesser packages. This avoids lot of problems.

d) **Limited opportunities in core Industries** - If the recruitment percentage of IT industry itself drops to some level, what is the fate of core companies and the students aspiring to work in core companies? First of all, core engineering companies are relatively less in number and their hiring is targeted to IITs, NITs and other tier-1 colleges. Less often, they may visit tier-2 institutions, but the hiring is limited to single digit. Thus the students joining core engineering branches are slightly frustrated. Core engineering stream students must be convinced to attend the placements of some mass hiring IT companies and to get placed. But here are two challenges.

The first one is to create awareness among the students about the current situations, business, demand for employees and many more related issues. The second one being more challenging is to make them survive in IT industries. Since these candidates have to be trained about the IT domain, programming, testing and other major issues, they may feel it difficult as it may be new to them. Further,

they have to work with IT colleagues, there are chances that they feel inferior and get frustrated sometimes. There are instances of termination of graduate engineer trainees during the training period itself. Few industries like TCS, give some assignments to the recruited candidates before their joining date. This is with the intention of reducing the time, effort and cost of training them, to some extent. But the problem here is more serious. Without any assistance, making a kind of self learning, completing the assignments is not that easy. But it is made mandatory. So with the fear that they may not get the joining letter, they start copying from their friends. The purpose of industry is not served then.

e) **Increased impetus on Automation**-Automation is a buzzword these days, which is slightly threatening to placements. It is predicted that majority of the industries are likely to use robots for most of the production operations, thus drastically reducing man power requirement. According to a prediction, by 2020, 50% of the industries may go for maximum automation. Only highly skilled personnel in a very small number may be required in industries. So the institutions have to find some alternatives to keep their placement rate high.

One important observation is that nearly 60% of the students studying in core engineering branches in tier-2 college are very poor or below average in their aptitude or technical or communication skills. They need to be motivated to choose other avenues than engineering. On a serious note, the investments made for the graduation of this category of students is a total waste. Even if such students complete their engineering striving hard for 5-6 years, they would not find a proper destination for themselves. There are graduates who are working for low package of about Rs.6,000 to Rs.10,000 per month, which may not be sufficient to meet their daily expenses. This makes graduates to question themselves - "Why did we do Engineering?"

f) **Requirements for Placement activities**-The recruiter expects conducive ambience in the campus to conduct placement activities. In an attempt to meet their requirements, TPO has to request the higher authorities to see that all such facilities are provided in the campus. Further TPO has to instruct subordinates, who may be reluctant in following the work. Convincing the higher authorities and managing the lower level workers is an extra burden for the TPO. It is most important for the TPO to behave in a cultured, dignified and professional manner with all the officials of the company. In particular, with the HR community. From the time of welcoming them till the end of the drive, HR team keeps observing the attitude of the TPO.

After the placement process gets over and results are out, placed students are happy and others start preparing for the next drive. Many times the second company wants more number of participants. To fulfil this condition, the students

already placed are to be given chance again, which naturally annoys the students not yet placed. If allowed, most of the placed students will succeed, if not allowed, company may not conduct the placement quoting insufficient number of participants. This is another challenge in placement.

A possible solution is to pool students from near-by colleges after taking consent from the recruiter. This creates an additional opportunity for students from other colleges to get placed.

g) Students' unwillingness to participate - There are certain instances in which there would be sufficiently large number of eligible candidates from few streams. But the number of participating students would be very poor. The recruiter feels disappointed and at times cancels the drive quoting this reason. From close interaction with students, it was found that the reason for turning up in less number was that students were interested in government jobs or higher studies. But this has a negative impact on the campus placements.

5. Steps taken to improve placements

Considering the above discussed hurdles in placement, some steps taken and adopted:

- For the students who were very poor in English communication, special English classes were conducted
- Special aptitude classes were conducted apart from the regular training
- Sample question papers with numerical aptitude, logical reasoning and verbal analysis were prepared and the students were made to solve them followed by a discussion
- Students were individually counselled wherever necessary and mentored to perform better in the online tests conducted by the companies
- Placement guidance classes were conducted for the students of all semesters
- Through WhatsApp groups of students, puzzles were solved with explanation
- Constant motivation was given to students, which increased their confidence in attending placements.
- Common questions asked in interviews were shared and answers were also discussed
- Personality development classes were conducted to inculcate positive thinking and life skills

6. Reflections

In order to handle above mentioned challenges suitably and appropriately, significant amount of reforms are needed. These must meet the industry requirements, students' satisfaction and the college reputation. The first and foremost is to arrange some talks or seminars to the students of matriculation level so that they have an

awareness of campus placements and the importance of percentage of marks to prepare for the placements.

Multiple offer provision to a student creates several other problems too. Since no one can join more than one company, it's quite obvious to reject the remaining offers. Though companies hire slightly more than their requirement in order to balance the dropouts, they would miss potential candidates. This kind of behaviour to reject an offer is unethical. There are instances where a student rejects all the offers and joins higher studies. This is the worst case and has negative impact on the placement of institutions. An experience in our institution is presented here. A core mechanical company hired 3 candidates in two consecutive years. But, none joined the company in both the years. During third year, the company didn't visit our institution. When the TPO invited the HR, his response was: "Why should we come to your institution when none of selected students are joining?". And the TPO had no answer.

The colleges should restrict the intake in core engineering branches so that only deserving and potential candidates can join and succeed. The very next question arising out of this argument may be - "what should others do?". There are several other avenues in life, where students can establish themselves and excel. Few possibilities are - basic degree courses, fashion designing, interior designing, tourism, hotel management, nursing and other paramedical courses. Recently, few software engineers are turning their faces towards agriculture and have found success and satisfaction. Student community can seriously think in these directions. It is advisable for youths to choose other options in life, rather focusing only on engineering, spending huge amount of money, scoring less and later becoming jobless. If the students are made aware of plethora of avenues to succeed in life at early stages of their education, they will have better knowledge about the market, business, employment and other global scenarios. This helps them to choose a suitable course for themselves.

An equally important issue is about the parents' pressure on their wards to join and study engineering course irrespective of their genuine interest. It has now become a prestige issue to the parents to say that their son or daughter is doing engineering. Hence parents and the society need to be properly educated about the issues discussed in previous paragraph.

7. Conclusion

The major issues, challenges and possible approaches to address the placement are elaborately discussed. Few modifications needed regarding the placements, institution policies, industry policies, students' decisions and parents' cooperation are also presented. It is advisable for students and parents to openly discuss and choose a course that fits the student's ability and interests, before selecting a course after 12th class or equivalent. Parents should forgo their ego and understand that engineering is not the only course to

mould the future of their wards. General misconception of students is to start preparing for placement only during their pre-final year. Instead, they must work hard to build a good profile right from the first year of graduation. A good step by the institution is to introduce credit courses for inculcating aptitude skills, communication skills and soft skills in the curriculum. Extensive training must be suitably spread over the graduation period. Proper infrastructure like high end computing facilities, internet with good speed, audio video systems, seminar halls, interview panel rooms with a very good ambience must be provided by the institution. TPOs may be given suitable training regarding smooth conducting of placement activities.

References

1. Kristinn Andersen, Saemundur E. Thorsteinsson, Developing the Academic-Industrial Partnership through Student Research and Projects: Case Studies from Iceland, 978-1-5090-3042-2/17/ ©2017 IEEE
2. Matej Zajc, Andreja Istenic Starcic, Designing educational tablet games with the interdisciplinary team of students Developing university-industry partnerships, IEEE Global Engineering Education Conference, IEEE
3. Tamara Grubor, Academic-industry partnerships: Developing new concepts in student engineering industry experience, IEEE International Conference on Interactive Collaborative Learning (ICL) September 2015
4. Sanket R. Brahmankar, Rahul S. Ghule, A Survey on Android App for Training and Placement cell ,JARIIE,ISSN(O),2395-4396,Vol-1 Issue,4, 2015
5. Shyam Tenali, Kamma Taranikanth, Implementing lean six sigma to improve the ratio of admissions to placements in an academic year: statistical and psychological case study of a technical institution, Proceedings of the 2015 International Conference on Industrial Engineering and Operations Management Dubai, UAE, March 3 - 5, 2015
6. Ms. Mekhla Sinha, Placement Challenges And Preparations, CSR-MBA, JUNE 2009
7. Hao Shi, Maximizing Computer Science Student Career Opportunity Through ICT Industry Placements, International Multi-symposiums on Computer and Computational Sciences, 2008