

INSTITUTIONAL BEST PRACTICES
(2016-17)

Best Practice-I

Title of the Practice

Improving Employability Through Skill Development

Goal

In an attempt to bridge the above gaps as well as enhance the employability of its graduates, MVGR College of Engineering has actively been involved in the design and implementation of add-on programs across different engineering streams. The following are the educational objectives and expected outcomes of such add-on programs:

1. To expose students to industry culture and practices
2. To inculcate in students a flair for problem definition and build problem-solving capability
3. To provide hands-on training to students in contemporary industry tools and techniques

The Context

Despite best efforts at developing a curriculum for industry ready engineering graduates, a targeted and well-established approach towards bridging the gap between the talent pool and the demands of core engineering sectors still needs to be clearly defined. Attempts are being made in pockets to understand the industry need and address the same through add-on programs at the undergraduate level. However, the effectiveness of such programs critically depends upon thorough understanding of industry needs and skill requirements and developing programs, in collaboration with the concerned industry sectors, in order to fill the gap. Educational institutions typically tend to work in isolation with the demands of the industry leading to engineering content delivery being mostly textbook oriented and traditional. Students hardly ever get to understand or be exposed to state-of-the-art developments in their respective fields.

The Practice

Administering an add-on program requires careful consideration of the engineering curriculum already being delivered, the gaps in the curriculum that need to be plugged to make the student industry-ready and the ability of the administering department to effectively bridge this gap. The following is the procedure adopted by departments in introducing an add-on program to bridge curricular gaps:

- i. Review the academic curriculum and identify gaps in the content
- ii. Define industry sector requirements and identify potential skill development/training programs to augment student capability
- iii. Prepare a clear mapping of the curricular gaps with the proposed skill development program
- iv. Identify available infrastructure with the department and propose additional facilities (if any) required (with budgetary requirements)
- v. Identify faculty competency available in the department (if any) in the proposed area and/or propose faculty skill enhancement plan (with budgetary requirements)
- vi. Anticipated intake, proposed course fee and viability of the programme

A Detailed Project Report covering the above activities along with the estimated budget, possible demand, proposed course fee and viability for break-even within 5 years is prepared by the department proposing to introduce an add-on program. The report of the department is reviewed by the central administrative team of the college chaired by the Principal. Upon approval of the proposed program, the department proceeds with implementation of the add-on program. The central administrative team is responsible for monitoring the effectiveness of delivery of the add-on programme and in ensuring that the stated objectives and outcomes are met while the departmental program committee, consisting of a team of faculty with relevant




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training, bears the responsibility for implementation and successful delivery of the program.

The college has put in place suitable add-on programs in collaboration with industry to bridge skill gaps. The course content for these programs are detailed based on discussions with the concerned industry and the individual delivery modules and their contents are finalised. The programs are delivered to the students during their course of study at the undergraduate level typically beginning from the later half of their II year and ending in the first half of their final year of study. By the time they complete their B.Tech program, they also receive certification of completion of these industry-oriented training modules.

Evidence of Success

- Increased student employability as reflected in improved placements
- Increased competency and resulting enhanced delivery from faculty in their teaching learning
- Increased R&D capacity resulting in significant improvement in research proposals
- Substantial growth in Industry- Institution collaboration

As a result:

The college is implementing 8 such add-on programs which are given below:

1. Oracle Certified Java Programmer (OCJP): - This is certified by Oracle Corporation. Over 100 students from the Computer Science and Engineering department have the prestigious OCP certification
2. Creo-2.0:- This is certified by Parametric Technology Corporation. The course was started in 2009 and till date, 160 students have completed the course. Of these, 41 students were placed in various MNCs on the strength of their certification training
3. NI LabVIEW:- NI LabVIEW Academy has been set up in the college by National Instruments Corporation for training on design and deployment of systems for embedded design applications
- 4 Process Equipment Design-SIMTECH
- 5 Technology Learning Center-VLSI-WIPRO Technologies
- 6 SIEMENS –AC Drives
- 7 New Down Automation-PLCs
- 8 Think Labs-Embedded Systems

These and few other such add-on programs currently being administered in the college have given a big edge to the students in enhancing their employability. Many of these students easily get placed on the strength of their skill enhancement.

Problems Encountered and Resources Required

When applied practically, a few gaps exist between the proposed methodology and practical implementation. This is mainly because of the financial constraints as each department is given budgetary allocations exclusively to meet costs of academic services which are curricular in nature. Hence the need for procurement of auxiliary infrastructure to meet the industrial skill needs to be carefully planned and administered properly. To avoid this, measures are taken to anticipate the requirements so that resources can be not only well maintained but also managed to enhance the purpose of skill development.

Apart from this, faculty have to be properly trained to justify the objective of the value added program by being flexible to the changes in the current trend. Should there be lack of pace with the contemporary versions of the technology, an aggregate overview of the package is lost. Faculty with aptitude in the program are therefore sent for training at the respective organizations in advance to be able to handle the training programs.

Notes(Optional)Nil



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Best Practice-II**Title of the Practice**

Participative Management

Goal

- To promote in the faculty a sense of belongingness and responsibility for the overall development of the college through collaborative and participative management, the faculty are oriented and motivated to plan, organise and implement activities related to a specific institutional requirement such as conduct of examinations, purchases, civil and infrastructural development etc.

The Context

For the success of any organisation, it is imperative that all its employees feel a sense of belongingness and learn to take responsibility for the effective functioning of the organisation. In most organisations, employees are given a set of responsibilities and expected to execute them to some degree of conformance. They generally do not have much of a say in the overall integration of these responsibilities to the development of the organisation. Only those organisations that are able to motivate their staff to see and take responsibility for the overall functioning of the organisation can go the extra mile in delivering quality output through coordinated and concerted efforts of the staff and not through individual excellence.

The Practice

For the overall administration of the institution, there are several requirements that need to be planned and addressed effectively. Generally, the overall responsibility for this lies with the Principal of the college, who, along with a team of administrative staff, attempt to execute the same. This places the entire onus of success of the institution on this team as also the burden of its execution. Moreover, such an approach tends to isolate individual faculty members from the overall institutional challenges for they fail to identify themselves in suitable assistive roles. The practise at MVGR College has been to draw in all its faculty members into different administrative roles so that each and every faculty of the college feel responsible for the overall success of the institution. The faculty are therefore grouped into various committees each headed by a senior faculty member who serves as convenor of the committee. The following are some of the major committees of the college:

1. Examination Cell
2. Purchase Committee
3. Training and Placement Cell
4. Alumni Cell
5. Library Committee
6. R&D Cell
7. Maintenance Committee
8. Disciplinary Committee
9. Grievance Cell
10. College Academic Council



11. E-Services Committee
12. Women Empowerment Cell
13. Cultural Committee
14. Canteen Committee
15. IQAC
16. Magazine Committee

The members of each of these committees are drawn one from each department. The Principal of the college serves ex-officio as chairman of all these committees. The members of each of these committees meet on a regular basis to plan, coordinate and implement various developmental activities under their purview. The challenge faced in such an approach is to bring all faculty involved onto a common platform to be able to appreciate the overall vision of the institution and identify what needs to be done in their respective domains that would enhance the performance of the institution.

Evidence of Success

The benefits of deep delegation understandably are reflected in the ability of the system in adopting to changes at short notices. Sense of belongingness, pride and a feel of ownership naturally leads to improved social networking and job satisfaction. It is very difficult to quantify the benefits of participative management, if there is one metric, we believe, it is the reputation, rating and recognition the institution is enjoying among its stake holding groups in particular and the society at large. The following are observed to be important outcomes of the model.

- Improved volunteerism
- High levels of team spirit
- Shared vision
- Increased organizational ability
- Shared quality consciousness

Problems Encountered and Resources Required

One of the biggest challenges in this endeavor has been to bring all the faculty on board to equally appreciate the task at hand and deliver effectively. All faculty are part of this effort beginning from the most newly recruited to the senior-most. Significant amount of time is spent in orientation of the faculty to appreciate the challenges on hand. While this may appear to be a limitation, it greatly helps capacity building for the system. Faculty at the junior-most level learn to appreciate the challenges faced in administration. The greatest benefit is that it fosters a sense of belongingness and team-spirit.




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