Best Practice

Best Practice-1

Title of the Practice: Project Based Learning (PBL)

Objectives of the Practice:

1. To understand and explain the concepts of engineering knowledge based skills.

2. To analyse the society and industrial complex engineering problems and apply the emerging technologies to get problem solution.

3. To evaluate the problem solution through modern simulation tools and mathematical model.

4. To create prototype model individually or in a team by using innovative ideas.

The context:

Nowadays, it is needed to develop industrial skills in the students. The basic concepts in theory should be explained with the hands on session through small projects and simulation software. As we observed, the remarkable gap between academia and industry. The gap can be reduced at great extent through multidisciplinary approach by using project based learning. As an engineering graduate, students are learnt various courses during four years of engineering but it should be reflected as an engineering knowledge through various projects. The use of modern tools for complex engineering problems can be improved through project based learning. Apart from technical skills, the engineering graduates able to learn team work, finance and time management skills, ethics and moral values through project based learning.

The Practice:

The project based learning has been started from first year of engineering through observing daily life problems in society and solution through technical means. The students come up with various innovative ideas and presented in front of faculty members and other students. They are able to get the solution through system architecture and methodology. In the second and third year of engineering they adopted the practical knowledge through various courses belongs to individual program and go through mathematical model and modern simulation tools. The solution to complex engineering problem is segmented into small project modules and finally integrated to get the complete solution. The working of prototype to as actual model has been observed by final year students through internship in various well known industries. The

outcome of practice is reflected in terms of participation in various project competition, hackathon, paper publications and paper presentation etc.

Evidence of success:

Through project based learning, the students have received recognitions/awards in various technical competitions viz. A Fourathon 3.0, Sparkthon, GDIOT Tech – Niche – 2023, foreign internship – Japan, Malaysia etc. paid internship, National level luminous Tech – A Thon, Best Project. The students have received more than 06 lakhs through awards and internships. The placement of college is more than 65+ percent and it has been improved due to PBL. The students have received outcome in the form of 60 + Patents, 70+ copyrights, and 150+ student's publications.

Problems encountered and resources required:

The project based learning can be improved by hiring industrial experts as an adjunct faculty or visiting faculty. The students have to apply for funding through project based learning to government agencies like Department of Science and Technology (DST), AICTE, DRDO etc. The student's confidence and involvement can be improved through funding from college for various projects. The research policies can be improved specifically in terms of funding for students to solve society based problems through project based learning.

Best Practice-2

Title of the Practice: Competence Enhancement Programme

Objectives of the Practice:

1. To adopt ethics and time management skills
2. To enhance communication and professionalism skills through group discussion.
3. To developed industry oriented skills through internship and technical sessions.
4. To promote the students for entrepreneurs and higher education.

The Context:

The career development through the training of students in terms of soft skills and industry oriented skill via internship. The ability is developed to do the work in team with good communication skill and documentation of report writing during handling the projects.

The Practice:

The institute provided a platform of training and placement cell, soft skill based programmes, value added courses, and workshops employability skills and Entrepreneur to the students for employability skills, Entrepreneur and holistic development of students. The college ensures to develop the students through training modules designed to impart technical, logical, analytical, behavirol and managerial skills.

Evidence of Success:

Competence Enhancement Programmes has been reflected in students through placements more than 65 percent and higher education. The students have been placed in well-known MNC's viz. Amazon, Accenture, HITACHI ASTEMO BRAKES INDIA LTD, Tata Motors, Wipro, Volkswagen, KINETIC ELECTRIC PVT LTD, JCB, Bajaj Auto, Force Motors, PVT LTD, Atos, FIS Global, TCS, Infosys, Capgemini ,and so on through on-campus and off-campus drives. The participation of students in technical events, soft skill activities, internship etc. have been increased at great extent.

Problems encountered and resources required:

The faculty members with good soft skill and technical skill is always a need for the development of student for preplacement training. The students are facing lack of confidence, communication skills, focused based activities and their own commitment. The mentor – mentee scheme required to be improved for the overall development of student. The facility of guardian faculty member (GFM) need to be strengthened.