Best Practices of Institution during 2020-21

Following are best practices successfully implemented by the Institution

1. Skills enhancement program for employment ready graduates
2. Human Value Education along with Professional and Technical Education
3. Innovative projects for inculcating the spirit of research & development

1. Skills enhancement program for employment ready graduates

It is undeniable revelation that 60 % of engineering graduates are not employable for the industries. The gap between university curriculum and dynamic expectation of industries is one of the causes of the same. While university curriculum is based upon the fundamental principles of science and engineering, the industry expect ready employable fresh graduates to start working immediately. The principle and concept of the practice of employability enhancement skill is to inculcate communication skill, soft skill and domain specific technical skill as per expectation of industries and in association with the industries. The same is evident in vision, mission, objectives and goals of the institution.

The Context:

Features of the practice are to bridge gap between industry's expectation from fresh engineering graduates and graduates attributes acquired after undergoing university curriculum and syllabus. Due to the best efforts by the college, students get qualified to seek university degree with flying colour through university curriculum and syllabus. Even though the same is necessary to get befitting employment in industries but it is not sufficient as per industry's bench mark. To mitigate the challenges, it is necessary to identify the gap precisely and correctly to develop mechanism and structure to bridge it. To Frame and implement 'Beyond syllabus course contents' of required skill set is the motto of practice.

To implement the scheme, following process/ steps are taken:

- To identify industries who would support the initiative.
- To interact and to create confidence about the Institute and the proposal
- To identify the gap between University Curriculum and Industry expectations
- To design the curriculum, syllabus, scheme of training
- To get it validated from Industries
- To identify internal & external resources to implement the scheme
- To motivate & train the identified internal resources
- To identify and motivate the students who undergo beyond syllabus activity with focus and discipline
- To involve Industry for training, internship and evaluation
- To market the practice to user Industry
- To arrange for placement drives

Goal:

The application of knowledge and skill for solving real life problems is the main job profile of professional engineers. Mini and major projects carried out during course of study, give an opportunity to acquire the skills of application of principles of science and engineering. The engineering solution has to be economical, optimum, societal and environmental friendly and most importantly innovative .The attributes of aptitude for innovative, critical and creative thinking is a challenge. Institution consciously works for innovative projects to train the young minds to be future ready through the practices. Teachers also get oriented towards research and development, publications & patents.

The context:

The inculcation of research culture, critical and creative thinking, sensitization towards social and environmental issues for which optimal solution can be found using technology is a challenging task. The implementation of practice involves team of Heads of Department, young enthusiastic faculty, Training and Placement officer, interaction with industry experts and researchers. The identification of statement of problem itself is a challenge. The present education system is tuned with writing answer script for the expected questions either from old question paper sets or text books, while engineering always encounter with unexpected challenging problems which are required to be solved under constraints of time, human and financial resources. To give, this real life experience through innovative projects posed many challenges during implementation of the schemes.

Practice:

A team of teachers from various technical domain areas and interest are identified to lead the group. The faculty is expected to advise, guide and facilitate project development with students. The faculty is given special training either in house or by deputing at industries, institute of higher learning or training centre. The students are identified on the basis of detailed analysis of their academic background, area of interest, flexibility to learn, attitude to accept challenges. They are groomed by giving beyond syllabus core technical area knowledge and skill through a structured program of about 120 hrs during third year of study. The industry inputs are also sought during training of the students. The statement of problems are identified from various sources like industry, analysis of social needs, thrust areas like clean energy, digital India, safety and security of women and as given by various State and Central Ministries on their website. A team of faculty and students design and develop the solution which is implemented as prototype. The projects are evaluated by industry, during various project competitions at inter collegiate, inter-university, state and national level. The practice becomes the novel teaching learning process also as the concept of self-learning, flipped learning, cogeneration of knowledge, participative and collaborative learning experience result in novel ideation and optimal solution for real life problems.

2. Human Value Education along with Professional and Technical Education

The Context:

The Value education is always essential to shape human life. The basic human values are**peace, love, truth, non-violence and right conduct, trust, attitude etc.** The need for value education among the Engineering professional students, teachers is constantly increasing as we continue to witness increasing violent activities, behavioral disorders and lack of unity in the society etc. Value education enables us to understand the needs and visualize goals correctly and also indicate the direction for their fulfillment. It helps to remove confusions and contradictions and enables to rightly utilize the technological innovations. There are different views that call urgent need to inculcate human values in Indian society. Numerous traditional values which have been inherited from past remain valid and true to be adapted by future citizens but many fresh values to match confronting problems in emerging Indian culture. Presently, negative human values are in upper side. It may be because of neglect of value education which created vagueness and indiscipline in the mind of people.

To implement the scheme, following are the steps:

- To identify the staff and motivate to attend the AICTE training of UHV
- To identify and motivate the students to undergo for UHV training
- To motivate & train the identified internal staff resources
- To qualify as UHV trainer by passing their all examination criteria
- Formation of students groups of Mentee and teachers Mentors for UHV program
- Provide value based education to students apart from technical and professional

Goal:

To provide Human value education along with technical and professional education

Practice:

Now AICTE has also make mandatory the course of Universal Human Values in all Universities of India. In national education policy, it is one of important part in education. With reference to the context of Human Values, we are motivating the faculties to learn and earn AICTE Certification of UHV. And with this practice most of faculties are now UHV certified. One certified trainer can take 10-20 students for mentorship, and provide training of human values to their mentees. Presently College has 7-8 UHV certified faculties and 2-3 non-teaching staff also. Consistently we are providing value education to the students and staff along with technical and professional skills.

3. Innovative projects for inculcating the spirit of research & development

Goal:

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