

# HKBK COLLEGE OF ENGINEERING 7.2.1 Best Practices

### **Best Practice 1:**

1. Title of the Practice: "Students' Holistic Development Mentoring System"

## 2. Objective of the Practice

HKBK College of Engineering being a self-finance institute has the privilege to admit from a diverse spectrum of students getting eligibility from various national and international Boards of Higher secondary education and Pre-University. This scenario imposes a challenge for the faculty members to bring synergy in teaching methodology. Also, the social and geographical diversity of students pose the complex problem to the teacher to synchronize the teaching. To help students acclimatize to the environment, a two-week orientation program is conducted for the freshers. The orientation program team consist of senior faculty as coordinators, mentors, student welfare committee coordinator and student counsellor. The evaluation report helps -

- To identify the strength and weakness of each student.
- To inculcate sense of discipline and social responsibility.
- To help students choose the domains that suit them the most in their professional growth.
- To collect feedback and ensure that problems (both academic and non-academic) are addressed to the satisfaction of all stake holders.

#### 3. The Context

The following issues prompted the Institution to adopt the holistic mentoring system.

- Some of the students lack the basic analytical and logical skills which are essential to be do well in Engineering. Such students stumble initially leading to the loss of year, or even drop out.
- Some students with weak financial and social background fall a prey to self-doubts about their skills and lose interest in studies and ultimately discontinue the program.
- Family and social pressure make the students lose track of their focus on the course. Students get astray and fail in first year.
- Conflicts in attitudes, habits, and adaptability due to cultural diversity need to be resolved and improve the learning practices among the students.

#### 4. The Practice

In the beginning of the first semester, fifteen days orientation program is conducted. The initial classes are focused in conducting quiz; MCQ based written test and interaction of mentor faculties with students. The orientation program is based on co-academic, cultural and social outreach and extension activities. The Institute has set up various clubs in the field of art, literature, technology hobby, music and social activities. During orientation program students participate in activities like collage, debate, visit to historical places, orphanage, oldage home. The orientation program ensure that every student participate in class room, sports and social activities. Mentors/ coordinators prepare the evaluation report everyday based on activities.

At the end of orientation program, students' strength and weaknesses are identified. Mentors interact with students on regular basis to follow up the progress of the student.

• A group of 15-20 students is assigned to mentor who is faculty member.

- The mentor is provided mentoring diaries which is regularly updated during one-onone interaction with student whenever the IA test / Semester end results are received. The mentor advises the mentee as to how best to improve the performance
- The mentors arrange remedial and tutorial classes for slow learners.
- Mentor maintains the student information. HOD monitors the mentoring dairies periodically.

#### 5. Evidence of Success

- Students' program dropout rate declined.
- Students' engagement in academic and co-curriculum activities increased.
- Academic performance of the students improved.

## 6. Problems Encountered and Resources Required

During this practice execution, various problems are encountered. Students exhibit large inertia to get into the program activities. The inspiration by mentors and diverse activities enable the students to be participative in the program. The diverse social, linguistic and geographical back ground was hurdle to get students together. The team building exercise through problem solving, sports events and club activities helped to overcome it. This practice requires extensive coordination between academic and supporting functions departments to ensure required logistics and resources are available in time.

## **Best Practice 2:**

1. Title of the Practice: "Project Based Advance Technology Skill Development"

## 2. Objective of the Practice: The goal of this practice is -

- To guide and urge the students to take up innovative projects in emerging technology, develop entrepreneurship skills, appreciation for core industry growth and ability to emerge as an employer.
- To develop contemporary technology skillset.
- To develop managerial, leadership and entrepreneurship skills.

#### 3. The Context:

The employability of engineering graduates is one of the biggest challenges for engineering education and institutions. The primary reason for this is the lack of contemporary technology skill sets as per the need of industries. Today a visible disconnect is observed between industry requirement and academic curriculum. The scheme of the engineering program as well as curriculum is not providing sufficient scope for developing practical knowledge and entrepreneurship skills among students. The institute envisions contributing high quality engineering professionals to the society/ industry by inculcating innovativeness and entrepreneurship skills. For this it creates facilities through organizing events like 'Techno Fest' "Project Exhibition" and encourages students to participate and compete in inter-institute, regional and national level project exhibitions. Students acquire professional skills by participating in such events and become either capable of creating start-ups or armed with skillsets which would help them to face the challenges of a global competition.

#### 4. The Practice

- The Institute's Industry Interaction: Interaction cell regularly organizes Industry visit for the students from 3<sup>rd</sup> semester onwards. The Institute facilitates the industrial visits and participate in various Trade-Exhibitions organized by Industries associations in BIE, Bangalore, Texas Instruments Innovation Ideas Annual Meet and National level project exhibition Events.
- Techno Fest, Project Exhibition are regularly conducted in the institution. Students are part of these events planning and executing these events. These events help nurturing

culture of entrepreneurship apart from exposing them to the emerging trends in industry and business and stimulate them to seize opportunities in the business environment.

### 5. Evidence of Success:

- The Mini-Project exhibition events witnessed the Innovative project done by students in the 3rd and 5th semester. The notable projects are smart home operated through mobile phone; Ultrasound based Radar operation.
- Some of the projects are funded by Karnataka State Council of Science and Technology.
- Student's projects are selected for VTU level exhibition and won 2nd best project award.
- Students have participated in VTU fest and won the first and second prizes in various cultural events.
- o The students' participation and numbers of ideas, projects are increasing every year.
- o Students carried the project idea to commercialization and successfully set up the start-up recognized and funded by DST Government of India.

#### 6. Problems Encountered and Resources Required:

These events required extensive planning and resource mobilization. Considerable amount of background work needs to be done and keep the programme flexible to accommodate the possible changes. The challenge of ensuring all logistics are timely in place required extensive coordination and team work. The inevitable loss of academic sessions has to be compensated with extra efforts from faculty member.

