Best Practices

I

1 **Title of the Practice**
   Involvement of students in In-house Project Development

2 **Objectives of the Practice**
   The basic goal of providing In-house Project Development to students is to make the students gain meaningful experience so as to help them meet their future career goals. Besides, it will help the students practice the theory taught in the classrooms and to make them understand how the real world functions.

   The primary objectives of this practice include:

   - To satisfy curiosity and hone research potential at research organizations for the research minded students.
   - To obtain on-job experience in an industrial / commercial, research or educational environment.
   - To provide a platform to students in applying whatever learnt in theory and to integrate theory with practice.
   - To enable the students understand the functional behavior of organizations and to sensitize the students towards corporate/industrial behavior, man-machine management, entrepreneurship, industrial safety.
   - To expose students to potential employers.
   - To help students develop the personality and soft skills.
   - To provide real time development experience.
   - To develop analytical and programming skills for real time applications
   - To increase the number of students with great practical knowledge.
   - To speed up the in-house projects development.

3 **The Context**
   Students with real application development experience get easily absorbed by industry. It is thus necessary now to involve potential students in development of projects of FCA to give them practical exposure. The students with such potentials are identified and are involved in project development.

4 **The Practice**
   - Throughout the teaching process during the semester, students with average or excellent logic/programming skills are identified.
   - Students are involved in the in-house projects may be inter-disciplinary or from some company.
   - Students are assigned work to be completed for particular project.
   - One or two faculties are assigned the responsibility for the completion of the project.
   - The assigned faculties guide the students and also help them where they got stuck.

5 **Evidence of Success**

CRITERION VII: BEST PRACTICES

- The students involved in project development become the first choice for the industry for employment.
- Also with the involvement of students, projects get completed very quickly.

In-house Projects developed with Students
E-Governance system:
Almost all the process of CHARUSAT is computerized and connects to customize Entrepreneurs Resource Planning Software. This whole system is called E-Governance. The employee shall need to access this system for student registration, syllabus, timetable, attendance, student I-card, fees and other receipts, exam result, convocation form, leave and etc. Each department has an E-Governance representative who is trained to use this system. By using this system, all the processes become paperless.

Online Exam System:
Awarded as the Greenest campus, the University believes in less paper work so keeping this in mind, Atul Patel, Dean & Principal, CMPICA, recommended the automation of exam to be conducted for students. For conducting this entrance exam the software ONLINE examaniation was prepared. The Key benefits of Online Examination System are,

- Automation of Paper generation by randomizing the questions and assessment in less time and high accuracy.
- Resumption of exam in case of power failure.
- Students can check their performance at the end of exam by knowing the Total Questions attempted, Total Correct answers, Total Incorrect answers and the final score.
- Generation of Marksheet.
- Monitoring of student activities for any unfair means during the exam.

It is now used at institute as well as university level for conducting any kind of online exam like Ph.D. Entrance Test, Faculty Recruitment Test, MCQ's type of tests etc.

Feedback System:
An online feedback system is developed by MCA student (Batch 2011) under the guidance of faculties. Feedback is taken online and reports are generated to analyze the feedback.

Websites for IGNITE and AGNITIO
Students are involved in development and maintenance of websites for techfest like IGNITE and AGNITIO organized by Smt. Chandaben Mohanbhai Patel Institute of Computer Applications each year. This websites provide detailed information related to various events, registration process, contact details etc.

Registration System for IGNITE
Ignite Registration System is specially designed for entering and managing registration details of Ignite – techfest organized by Smt. Chandaben Mohanbhai Patel

Institute of Computer Applications each year. System manages information like students' basic information, events to be organized in Ignite and information regarding students' participation in various events. System also generates College/Institute wise student list, Event wise student list etc.

6 Problems Encountered and Resources Required

Initially the students were not doing the job seriously and the burden of the faculty guide was increased. The students with limited knowledge may create some serious problems. It then becomes time-consuming and cumbersome to solve the problems and bring project in-line with industry standards. After identifying such major issues through some projects, now the students are given proper training to avoid such problems.

Proper analysis of requirements is based to start to develop any project. Normally students have a mind set to start coding without doing a proper analysis work. Faculty guide explains the importance of analysis work to meet the requirements. Faculty guide also have to take care about the completion of project on time.

Resources Required

- Well trained faculty who have vast academic experience with in-depth technical knowledge required to guide students.
- Dedicated time slots are required for tracking the progress of project.
- Highly configured PCs with required software.

7 Notes

Most of the objectives are achieved by providing proper guidance to students in development of in-house project.

CRITERION VII: BEST PRACTICES

II

1 Title of the Practice
Blended Learning Practice through Case Study

2 Objectives of the Practice
- To promote subject excellence through real time problem solving.
- To develop skills among students in analytical thinking and reflective judgment by reading and discussing complex, real-life scenarios.

3 The Context
Teacher-centered learning is typified in the traditional lecture where the students' role is to passively listen to the knowledge being imparted by the teacher. In contrast, student-centered learning encourages students to actively participate in the learning process and to take responsibility for their learning. One of the approaches of active learning is case study.

To make students totally involved in teaching-learning process, alternate teaching techniques supplementing the traditional method must be evolved. This shift from traditional to innovative methods should make teaching exciting and more practical. All type of students (slow and fast learner) must benefit from change and must be motivated to develop at least one small case study related to real life problems. Case study can be used for purposes such as to illustrate best practice, apply tools, invite discussion, facilitate decision making and develop skills in critical and creative thinking.

4 The Practice
- Students are required to submit their Case study topics after learning basic concepts of the course.
- Students are required to continuously incorporate concepts of course into their Case Study as syllabus processed.
- Faculties are required to conduct Case study review on the regular interval.
- Students are motivated to develop case study by integrating more than one courses in the given semester. They can continue with the same case study in further semesters.
- The corrective measurements must be taken by respective faculty for the poor Case studies of the students.
- Students are required to submit their Case study at the end of semester either in hard copy or in soft copy.
- The Case study implementation must have proper weightage into the overall result of the students.
- Case study is considered as one of component of students' result.

5 Evidence of Success
- The overall understanding of course is increased by Case study.
- Students feel very confident and comfortable for the course as they have knowledge to apply lessons practically in real life as case studies are usually based on a real-world scenario.
- By integrating more than courses in one case study, students' can gain overall

understanding of the courses in a more better way. Thus, students are able to develop a full fledged real time system.

- Students are identified for in-house project development based on the performance in the case study.

6 Problems Encountered and Resources Required

The work load of the faculties has been increased for evaluating Case study on regular interval. Slow learner students feel difficulties in practical implementation of Case study.

Resources Required

- The proper schedule for the Case study reviews to be prepared by faculty.
- The adequate documentation structure for Case study should be provided in advance by faculty.
- Resources like computer lab, internet connectivity, reference books etc. should be provided with dedicated time slot in time table.

7 Notes

Case-based learning is one of the effective practice of the teaching beside class-room teaching.