







# 7.2 BEST PRACTICES

Two best practices successfully implemented by the Institution as per **NAAC** format













# Best Practice - I

## 1. <u>Title of the Practice</u>:- Transform students project into paper publication.

## 2. Objective;

- > To encourage students to opt Research and Development as career.
- ➤ To conduct useful courses and technical seminars, workshops & conferences as per the current industry need.
- > To participate various events like project competition, paper presentations etc.
- > To develop awareness about participation in different events held at state, national and international level.
- > To encourage students to the area of Intellectual Property Rights.
- > To provide mentoring to engineering students from professionals.
- ➤ To enhance teaching learning process in Engineering Education.

## 3. The Context:-

Innovation and creativity are the vital parameters for development of state-of-art technologies to meet challenges of globalization. In today's Knowledge Based Economy, role of upcoming Engineering Graduates will be of upmost importance. There is urgent need to motivate Engineering Graduates to opt their career in Research and Development to accelerate the economic development of the country. Right from first year of engineering, students need to be exposed to recent technological developments and to be encouraged to solve day to day problems of industry and society. There is a need to provide more emphasis on project based learning and situation based learning. An International level TECH FEST like "MARS SUMMIT" and Project Exhibition, organized by the institute is intended to give students a stepping-stone for entering into the Engineering industry.

#### 4. The Practice:

This event has a successful history of 3 years

- It is an opportunity for showcasing the efforts and expertise in creating innovative solutions to real-world problems by engineering students.
- The students exhibit their project work along with papers, presentations and publications.
- Classes that incorporate real-world, experiential projects not only foster lifelong learning, but also appeal to students and help them identify interesting career paths.
- > Students also get to practice soft skills such as networking and teamwork along with technical skills such as analytical thinking and budgeting.
- > Students can increase learning outcomes by transferring knowledge such as industry-specific

- terminology and experience such as insight into analyzing a problem.
- Providing detailed briefs about all tasks and ensuring that students are carried out projects efficiently and estimated time of completion.

## 5. Evidence of success:

- Over the period of time there is a significant improvement in the quality of projects exhibited by the students.
- Due to interaction of industry professionals, small and medium scale entrepreneurs with students involved in conferences, seminars etc. resulted in the improved quality of projects.
- Some participants have gone for the IPR with their projects and are in the process of getting patents for theinnovative project ideas.
- Some students have developed their own ideas and started converting those ideas to become an entrepreneur.
- Enhancement in the application knowledge of students.
- Students are actively participating in different activities, it makes a positive improvement in students like personality development, communication skills, management skills, programming skills etc.
- Project management resources should provide students with sufficient information on how to develop a project work stream and sources may include educational publications, such as case studies on project management.
- As students and faculty work together, it builds team spirit among students. It also helps for faculty since students are having innovative ideas. Bonding is formed among students and faculty. It helps in many perspectives for students.

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

- For faculty members, however, implementing project-based learning can be challenging it often requires instructors to reformat their courses and play a large, hands-on role in overseeing student projects.
- Research confirms that under the right conditions project-based learning, although sometimes difficult to implement, can improve student learning.
- > Small issues can get out of control if they are not addressed immediately. Attend to all issues at the onset to ensure that the project publications proceed smoothly.
- > Students are hesitating to take part in paper presentation because of lack of confidence and daring.
- Feeling burden of academics to participate in activities and to motivate students for participation is challenge.

Website Link: http://www.acsjse.in/index.php/acsjse



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## **Best Practice - II**

## 1. Title of the Practice: "Training students in cutting edge Open Source Software"

## 2. Objectives of the practice

- > To offer value added courses to students across disciplines in the niche areas in the IIT Bombay (Spoken Tutorials) mode
- To promote mass usage of Open Source Software among students and teaching faculty.
- To reach out software learning to students of all the disciplines to excel in their domain.

#### 3. The Context

India is a front runner in the computer software area and to maintain sustainability there is a need for updated domain knowledge. There is a need to facilitate students with different background / economic status / linguistic nature to software education in a student-friendly way in an affordable way. There is a need to generate discipline specific graduates with knowledge on skill base software to handle the domain specific Artificial Intelligence needs.

#### 4. Evidence of Success

Total 15 value added software courses were offered and 543 students enrolled in these courses across departments. The employ-ability skills of the students has enhanced since many employers opting to select students with updated software training in emerging areas.

## 5. Problems Encountered and Resources Required

#### **Problems Encountered**

Difficulty in creating awareness among non circuit branch students to pursue open source software courses. Problems in breaking the mental barrier of academically weak students to pursue these courses due to misunderstanding of complexity level.

### **Resources Required**

There is a need to create more awareness on students belonging to non engineering category about the benefits of pursuing online based, discipline specific, soft ware courses. Faculty members shall be motivated to pursue the open source software courses to understand better the learning tools and disseminate the information to students.

### Website link:

https://spoken

tutorial.org/statistics/training/?training\_planner\_\_academic\_\_state=&training\_planner\_\_academic\_\_city=&training\_plan ner academic institution type=&training planner academic institution name=ACS+College+of+Engineering&de partment=&course type=&course foss=&sem start date after=&sem start date before=&lang=------&status=1



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