MOHAMED SATHAK A J COLLEGE OF ENGINEERING,
CHENNAI - 603103

Best practices successfully implemented by the Institution

Objectives:
1. To provide hands-on training through experiential learning
2. To enable them to get certification from appropriate training agencies in the cutting edge technologies

Context:
1. To make the students deployable, they are trained in multi-disciplinary skills apart from their core domain through our technology centres within regular college hours as per their interest
2. The students appearing for placement selection were earlier found to lag in skills required and expected by the employer in their domain

Practice:
1. All students are given training as per the schedule prepared at the beginning of the academic year
2. All these trainings are given in the afternoon sessions without affecting the regular academic schedule
3. Trainers are our own faculty members who had already been certified by different certification agencies and hence freely accessible to students at any time
4. Students are free to choose courses of their wish apart from the one given in the training schedule at the beginning
5. All these centres will be kept open beyond college working hours and hence they can learn as per their interest

Evidence of success:
1. The students are certified by different agencies like CISCO, Altair, and Automation anywhere etc.
2. They are now found to be not only employable but also deployable directly into the job by the recruited companies
3. They found to have learned through hands on experience and hence they will acquire the lifelong learning skills
4. Students are found to have developed knowledge not only in cognitive domain but also in the psychomotor domain also, because they undergo experiential learning
5. Some of these courses are included as audit courses under Anna University (affiliating university) and the course name will be included in their mark sheets
6. The syllabus contents of two such courses taught at our technology centres have been recognised by Anna University and the syllabus set by us will be followed by other affiliating colleges

Problems encountered and resources required:

1. As this practice is not included in regular curriculum, scheduling of theses value added courses is a challenging issue
2. The infrastructure needed for this practice is created by the college even though this is not mandatory as per the regulations
3. Additional man power is required to conduct these courses and at the same time it is given as free of cost to the students

BEST PRACTICE -1
Title: Technology Centres

Mohamed Sathak A.J. College of Engineering (MSAJCE) was established with the ambition to become an eminent institute for higher education and research through innovative teaching-learning and sustainable practices to meet the industrial and societal needs.

To fulfil this vision, we provide holistic, multi-disciplinary skill-based education in the latest cutting edge technologies and also inculcate innovation and entrepreneurial abilities, so that the students are well groomed to face the challenges in the industry and the society through our technology centres.

To have a focussed and stress-free involvement of students both in academics and training, the activities are split into two separate sessions such as Forenoon – Academics only and Afternoon – Training & Practices, within the college regular working hours.

MSAJCE encourages students towards research and innovation practices by involving them in various hackathons and consultancy works. The following are some of the salient features of this distinctive area.

Salient features:

- Skill-based training provides holistic education to develop skills, knowledge and values through well-structured curriculum and hands-on training within the college working hours
- Students are given an opportunity to work on live industry projects/consultancy works
- Make students readily acceptable by the industry and also to become an entrepreneur
- Provides inclusive technical education so that a deserving student is not denied an opportunity solely on socio economic constraints
- Provides prerequisite training for building and developing competencies for the placement.
- Students have the flexibility to choose the courses based on their interest
- Students had participated in many competitions and hackathons and had also secured mentoring support and funding
- Students have designed and developed innovative products with the skills gained from these trainings,

- To spread the culture of innovation and entrepreneurship, our college had constituted Institution's Innovation Council (IIC)under the guidance of Ministry of Education's Innovation Cell of AICTE in 2019 and our students have participated in many hackathons like Smart India Hackathon, National Innovation Contest
- To promote entrepreneurship amongst the students, Entrepreneurship awareness programmes are organised with the support from Entrepreneurship Development Institute of India (EDII) and MSME Development Institute
- To promote the knowledge on IPR, awareness programmes are conducted with the support from Tamilnadu State Council for Science and Technology (TNSCST) and Indian Patent office, Chennai
- The society registration work is in progress for registering secion-8 of company act for starting a Technology Business Incubation Centre. This will enable our students and outsiders to establish their start-up with innovative ideas

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Best practice - 2
Title: Afternoon Laboratory Classes

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Objectives:

1. To become an eminent institute for higher education through innovative teaching-learning and sustainable practices to meet the industrial and societal needs by offering all practical courses in the afternoon session to learn by experience
2. To provide problem solving and critical thinking skills and inculcate innovation and entrepreneurial abilities, so that the students are well groomed to face the challenges in the industry and the society

Context:

1. If practical courses are offered in between theory courses, students may feel fatigued and may not be able to concentrate on theory classes
2. To teach content beyond the syllabus theory classes may not be sufficient, but these afternoon sessions will be utilised for this purpose

Practice:

1. All the laboratory classes are scheduled only in the afternoon while preparing the time-table
2. The experts from industries are invited in the afternoon sessions to talk about practices followed in industry so that students are aware of the practices in industry
3. New technologies which are not covered in the regular syllabus are taught in these afternoon sessions
4. Students will have freedom to listen to MOOC lectures at library in the afternoon session
5. Most of Institution's Innovation Council activities are conducted in the afternoon

Evidence of success:

1. Students are getting involved in industry consultancy projects because they had gained practical knowledge expected by the industry
2. Students are getting certified by Coursera, Udemy and NPTEL etc,

3. Students had participated in many competitions and hackathons and had also secured mentoring support and funding
4. Students have designed and developed innovative products with the skills gained from these trainings

Problems encountered and resources required:

1. Difficulty arises in preparation of time table to accommodate all practical classes only in the afternoon
2. Accommodating all students for practical courses in one slot is a challenging task