

Best Practices

I Project Based Learning:

Project-based learning (PBL) or project-based instruction is an instructional approach designed to give students the opportunity to develop knowledge and skills through engaging projects set around challenges and problems they may face in the real world.

Project-based learning is more than just “doing a project”, that is, PBL is “Learning by doing”. It teaches students to “investigate and respond to an authentic, engaging, and complex problem or challenge” with deep and sustained attention.

The department of science and humanities adopted project based learning to enhance the students’ learning and are detailed below:

a) Subject wise mini-projects:

Objective: Through the notion of doing mini projects on all the subjects of study was developed during the onlinemode of teaching-learning scenario to inculcate a research bend of minds in the students.The ideas ofsubject wise-mini projects were given with proper instructions and the learners understood the relevanceof their major topics of study in connection with their real life. The purpose of making the students understand the application of the topics in that subject better got its result.

The practice: This activity based learning helped to induce interest in students about the subject and that made themlearn the subject easily and with better understanding. A single student would have done a minimum of twelve mini projects in this connection in one semester.

b) Technical Projects

Objective: The “Technical Club” established in 2019, provides a common platform for interdisciplinary technicalactivities as well as opportunities to identify problems and provide engineering solutions.The club aimsto technically develop and builds 21st century success skills such as critical thinking, problem solving, communication, collaboration, creativity/innovation in the various fields of Engineering & Technology. The motive of the Club is to make the participants understand the objective of an engineer. The authorities recommended students to collaborate with their team members and they carried out the projects successfully without much exertion. Students were able to collaborate with their team members, learnt problem solving, applied creative thinking, and also were able to increase their self-confidence.

The Practice: FAB Lab established in 2019 provides facilities to start-up with innovative projects for the First year B. E./ B. Tech students, we initiated this through our Branch specific Technical Club. The requirements facilitated through FAB Lab would encourage the students to experience the process of creation fromideations to prototyping. Knowledge and skill gained doing the project through FAB Lab will providestudents with a broad understanding of their project work which wouldindeed be the stepping stone for them to do advanced projects.

The requirement to the project team through Fab Lab for the academic year 2020-2021 was not feasible due to the lockdown declared in view of Covid 19. Still students were asked to buy relevant materials and get the money reimbursed.

c) Vacation mini-projects

Objective: The notion of doing vacation mini projects was generated with a motive to give the students to gain momentum in their journey towards campus placement. The expectation of the recruiter for an industry ready candidate with sufficient practical knowledge along with the knowledge of the basics motivated the departments to impart sufficient skills and support to add value to their curriculum and the assignment of technical projects during the first year is the latest achievement.

The Practice: Students were able to build on their research skills and deepen their learning skills beyond memorization. Such individual projects were enhanced and students were encouraged to apply for patents.

Technical mini project is a group project and vacation mini project is an individual project. Technical mini project is core based and vacation mini project was core, interdisciplinary, general science topic too. For the successful completion, faculties from the first year and from the respective department's were allotted as mentors.

EVIDENCE OF SUCCESS

- Many vacation mini-projects were shortlisted and enhanced to Technical Papers out of which numerous projects were presented as papers in national and international conferences.
- Students received best paper awards from various forums.
- Patents were published for the best innovative miniprojects.

II Value based Education:

- Silence period: The mind can take us on a rollercoaster ride. One moment it makes us worry about what happened ten years ago, the next moment it makes us sad about the past. Learn to quiet your mind so that you can harness the power of your spirit - William Penn
- Every morning, "Silence period" for 3 minutes (8.30 – 8.33 a.m.) is observed by every student. The quiet and calm mind is fresh and enhances the learning capacity.
- Thought for the day: A brief "Thought for the Day" is narrated by a student / Faculty / class.
- HoD writes motivational / inspirational messages to all the students every week.
- Students' induction program is conducted for a period of 21 days.
- **Universal Human Values (UHV)** classes are conducted as per the guidelines of AICTE.

III Personality Development Training:

- 3 day motivational program on Self - development, personality development skills, career orientation, psychometric test, creativity skills are conducted for all the students through

eminent personalities like Mr.Jayaprakash Gandhi, Mr.Ragunath, Ethnus company, FACE academy etc.

IV Institutional social responsibility activities:

Students are motivated to participate in social service activities in nearby villages such as plastic waste management, COVID 19 awareness, cloth bag distribution etc. through ECO Club, UBA Club, YRC and NSS.

V AI-Powered Learning Campus

High quality Digital content was designed by the faculty members of the concerned department as directed by the Authorities. RMK Next Gen @ Edwisely which is a web cum mobile application was introduced to effectively train the students in answering objective type MCQ questions and also train them in coding skills. This attempt was done every day allotted to each subject to help the students to acquire higher levels of understanding following Bloom's Taxonomy.

Empowering the educationalists, inspiring the students and empathizing with the industrial needs is the need of the hour. The dynamic industry requirements have challenged the traditional teaching and learning methods of engineering education. It resulted in an increased emphasis on Outcome - Based Education (OBE). It is a learner – driven system, where in it helps the learner.