





### **Pedagogical Initiatives:**

The faculty of the department makes Pedagogical initiatives by means of

- 1. Innovative Teaching & Learning methodologies to create best learning environment for the students. To improve the quality of teaching and achieve good results in academics, various types of teaching-learning methods like lecture method, interactive method, project based method, seminar method, mini projects etc. are adopted.
- 2. Understanding of students and their needs, background, interests are identified through counseling.

The details are as follows:

#### A. Lecture Method:

In the lecture method, faculty use chalk board teaching and it is the major method of delivery for theory subjects. Faculty also uses audio/ visual aids such as charts, models, LCD projectors, for delivery of appropriate topics. Some topics, particularly recently developed paradigms which are not part of the syllabus are delivered to the students through guest lectures, seminars, and workshops by inviting experts from industry or other academia. Demonstrations and experimentation are major methods of familiarization of students to laboratory experiments.

### **B.Project Method:**

Being a technical Institute, this method is extensively used to provide empirical evidence of the theory learnt. Students are asked to prepare projects in the duration of 6 months for mini Project and 6 months for major project in 4<sup>th</sup> year 1<sup>st</sup> and 2<sup>nd</sup> semesters. This will help the students in the application of the concepts and principles learnt for implementing the projects. The faculty guides the students at various levels for implementing the project by giving timely inputs.

## C. Teaching through PPTs:

Class rooms of the department are equipped with LCD projectors. They are used by the faculty to teach the course contents, which can be better understood by the students if they were taught using an LCD projector. Faculty develops PPTs on their own. It is the best method for visualizing, analyzing and understanding complex topics and in interpretation of large data in a simplified way. It is very much helpful to repeat important concepts for slow learners.

#### D. Seminar method:

From time to time, the faculty involves the active students into the seminar method. A student is advised to come prepared on a topic of his interest and present a seminar before the faculty and students in the class. The student is also trained in the use of different ICT tools to present the required topic. This method is very effective in motivating students to undertake extensive reading, and develop communication and presentation skills.

# **Learning Methods:**

- 1. **Presentations:** The engineering concepts difficult to imagine are presented through power point presentations and animation tools to impart insight into the subject. Presentations also illustrate ideas and concepts in graphics form. Video presentations effectively communicate the working of actual engineering solutions impact.
- 2. **Laboratory session:** Laboratory work demonstrates how theory can be verified practically by means of doing experiments. Experiments are normally done in groups, so students learn to work in teams.
- 3. **Remedial classes:** Remedial classes are used to improve learning of weak students. Remedial class teacher identifies the strengths and weakness of their students. Weak students will be identified based on their performance in prerequisite subjects, assignment and MID examinations. Week students will be given important questions and the remedial teacher makes them to learn and write answers for those

- questions in the remedial hours.
- 4. **Internet:** Computer center with Internet facility is used for viewing NPTEL videos, MOOCs– Massive Open Online Courses and also submit their assignments online. This facility is also used for searching project related information, preparing for paper presentations and seminars to improve their basic knowledge, communication skills in the respective subjects. Internet facility is provided to students through internet slots given in the class timetable. Wi-Fi facility is also present in the department. After class hours also students can use internet facility.
- 5. **Project**: Mini projects and major projects are carried out by a group of students under the guidance of the faculty where in students apply the knowledge of all related courses in providing hardware/software solutions and present product prototypes.
- 6. **Seminar**: The students are advised by the faculty to give seminars on topics present in curriculum or advanced topics to improve their skills in demonstrating the subject and to avoid stage fear.
- 7. **Industrial Visits**: Industrial visits are arranged regularly to make the student's to be aware of the technology used in industries, so as to bridge the gap between industry and curriculum.
- 8. **E- Learning Resources**: E-learning is a good way of understanding the concepts, it gives exposure to domain expertise. The central library contains 25,500 NPTEL videos, 2,233 DELNET journals access, 12,540 Web lectures.