

Lecture method with chalk and board, remains the principal method of teaching where direct interaction happens between teacher and students. Student centric methods are used for enhancing learning experiences. Some of the methods put in practice by the faculty are:

**Inquiry based method:** Students are encouraged to ask questions on subjects being taught. Provided with appropriate tools and techniques to generate the data during laboratory practical work. Post-graduate students as a part of their research dissertation get the opportunity to plan and conduct investigations, think critically and logically about the results obtained and give scientific explanations. As a part of co-curricular activity seminars on current topics and recent academic advancement are arranged.

**Discovery based method:** Student investigates a topic, issue or problem, by real time experimental work, obtain relevant information and interpret results and arrive at an appropriate Conclusion. All necessary resource material is provided to the learners and teachers provide any necessary support during the practical investigations. Group working skills are enhanced as well as independence in learning is encouraged.

**Problem based learning:** It is mostly used by PG students. The projects or problems selected are based on real-life scenarios. During this mode, the elements of team work, research, data collection, critical thinking are used by the students. This encourages self-directed learning, prepares students to think critically and analytically, empowers students to identify, locate and use appropriate resources. To promote PBL, college III Cell and Research Cell seeks active cooperation for projects from industry.

**Project based learning:** Projects are part of academic requirement in the final year UG and PG students who work individually or collectively under their guide to gather and present information on a topic and present their work at the term end. Prototype, Model and chart competitions are also held to further boost student understanding of subject.

**Resource-based learning:** College has centralized library containing text books, magazine on technical subjects, Journals, e-books, and NPTEL study material etc for all UG and PG students. The Institute has a language lab and Wi-Fi hot spots are provided in the campus.. Enquiry is supported through library software for electronic search, Library Server and CD-ROMs. Library assignments are given by teachers to foster student's autonomy in learning by using appropriate resources and applying relevant literacy, numeracy and study skills to explore interesting topics. The digital library is well equipped with multimedia computers, e-books, on line research journals, reports, dissertations, thesis, videos, DVDs, online material like NPTEL, QEE lectures, Virtual Labs to obtain information relating to a chosen topic that the student requires. The college website provides interactive study material uploaded by teachers. The library is upgraded regularly and the library is open for access throughout the year.

To further support and develop experiential learning, participative learning among the students and make learning student centric, the following specific support strategies are adopted in learning process:

- Assignments, Problem solving, Seminars, Power point presentations
- Tutorial lectures, Guest Lectures, Group discussions, Industry visits
- Conferences, workshops, guest lectures, industrial visits, visits to R&D laboratories
- Soft-skill program, finishing school and departmental fests are conducted
- Flipped classes are conducted for students by uploading study materials and videos on Learning Management System.
- Models, charts, posters and diagrams are used to make learning interesting.
- The department provides well equipped labs for improving programming skills & logical thinking.
- Eminent personalities, industrial experts, entrepreneurs are invited to share their success stories with the students.
- Institution is having a tie-up with IIT Bombay to use spoken tutorials, developed by IIT Bombay. It is the initiative of the 'Talk to a Teacher' activity of the National Mission on Education through ICT. This is about teaching and learning a particular FOSS (Free and Open Source Software).
- Students publish scientific and technical articles in the institute magazine and present & publish technical papers in seminars/ symposia.
- Active learning strategies like think pair share, Minute paper, just in time assignments are practiced in the class rooms.
- Faculty and students have access to e-books, NPTEL, QEEE video lectures, virtual labs for self learning.
- Faculty upload study material, class room videos, assignment and conduct online test using LMS to facilitate self learning.