ICT ENABLED TOOLS

Effective content delivery by using ICT tools in the class room for better understanding and reinforcement of the concepts and problem-solving is adopted by all the faculty of the institution. ICT tools complement the traditional teaching-learning methods, and the institute is highly interested in providing innovative methods for enriching the learning experience. The institution has the needed resources which include wide availability of computers in engineering departments and library, high speed internet access and general ICT knowhow among the students and the faculty. The faculty are trained for the efficient use of tools through training sessions at the institute and/or faculty development programmes conducted by IIT, Bombay. Teaching/Learning methodologies include the use of ICT tools for illustrations and special lectures, field study, case-studies, project-based-methods, experimental methods, flipped class room sessions etc.

The conventional lecture method facilitates the teacher to interpret, explain and revise the content of a topic, only for better understanding of the subject by the learners. At the end of instruction of each unit, the students are given specific assignment which enriches their learning. To enhance the effectiveness, lectures are presented as 'learning dialogues' including short intermissions facilitating the students to recapitulate the acquired knowledge by way of answering a few questions or a brief peer group discussion or a think-pair-share activity or any other relevant interactive session. Thus, the blended mode of learning which combines direct tutor-taught interaction with the online learning is largely implemented.

ICT components are embedded in the course contents of all relevant engineering disciplines which include free / commercial software used for computation / simulation such as the use of MATLAB for solving linear or differential equations and statistical analysis of experimental results in project works. ICT for course delivery includes power point presentation, video conferencing or educational websites. MOODLE on our college website is a mandatory ICT tool for learning process and resource management, and it also enables monitoring of students' learning process through online quizzes, submission of online assignments etc. It helps our students in blended learning, flipped classroom and other e-learning projects.

ICT enabled Teaching-Learning Process is supported with Regular Practical Sessions, access to Digital Library, Online Courses (MOOCS, NPTEL etc.), online journals, Online tests, Use of LCD projectors for seminars and workshops, productive use of educational videos, and accessibility of non-print material for students of different disciplines. Communication skills training facility is enriched with ICT tools to make the students acquire proficiency in listening, speaking, reading and writing skills.

The case study and the project-based learning methods, which are participatory, discussion/demonstration based ways of learning, enable students gain the skills in critical thinking, communication, and group dynamics and reflect appropriate integration of direct and online interaction of the participating members. As engineering courses are of quantitative nature, embedded with step by step solving of innumerable problems, hands-on sessions in the labs and internships at work places, faculty and students find ICT tools indispensable.

ICT Tools:

1. Projectors are available in all classrooms.

2. Desktop and Laptops - Arranged at Computer Lab and Faculty cabins.

3. Printers - They are installed at Labs, HOD Cabins and all prominent places.

4. Scanners- Multifunction printers are available at all prominent places.

5. Seminar Rooms- Three seminar halls are equipped with all digital facilities.

6. Auditorium- It is digitally equipped with mike, projector, cameras and computer system.

7. Online Classes through Zoom, Google Meet,Google Classroom.

9. HackerRank (Online Coding Platform) - Inter college competition

10. MOOC Platform (NPTEL, Coursera,Udemy, Edx etc.)

11. Digital Library resources (DELNET).

12. Simulation Softwares

13. Udemy

14. E-News papers

15. E-Magazines

16. E-platforms (Zoom, Google Meet, Cisco webex, Teams) etc.