



ERODE SENGUNTHAR ENGINEERING COLLEGE

(Autonomous Institution)

(Approved by AICTE, New Delhi, Permanently Affiliated to Anna University, Chennai & Accredited by National Assessment & Accreditation Council (NAAC), Bangalore with 'A' Grade)



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2.3.2 - Teachers use ICT-enabled tools including online resources for effective teaching and learning

The ESEC Faculty members are practicing effective content delivery by using ICT tools in the class room for better understanding and reinforcement of the concepts and problem-solving is also adopted. 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 faculties are trained for the efficient use of tools through training sessions at the institute and/or faculty development programmes. 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 signal processing applications and statistical analysis of experimental results in project works. ICT for course delivery includes power point presentation, video conferencing or educational websites. Google classroom 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.

Teachers use ICT-enabled tools including online resources for effective teaching and learning

Number of teachers using ICT (LMS,e-Resources)	Number of teachers on roll	ICT tools and resources available	Number of ICT enabled classrooms	E-resources and techniques used
265	265	Advanced Communication Skills Lab Software -GLOBAREENA	67	<ol style="list-style-type: none"> 1. NPTEL Videos 2. Subject Animated videos 3. Power point presentation 4. e-Books 5. e-journals 6. Google class rooms 7. Word Press 8. Youtube Videos 9. MOODLES 10. NDL 11. MOOC'S 12. Course Era 13. SWAYAM
		CAD Software		
		CAM Software		
		MATLAB Software,Xilinx		
		High-performance computers		
		Printers for general document printing		
		Auto CAD,Revit,Staad-Pro		
		CREO, PRO-E, LABVIEW, Univraphics, ANSYS		
		NPTEL Videos		
		LCD Projectors		
		e-Books		
		Google classrooms		
		Wordpress		
		MOODLES		
		NDL		
		MOOC'S		
Course Era				
SWAYAM				