

SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

BEST PRACTICES

BEST PRACTICE: 1 Enhancement of teaching-learning methods with modern teaching aids

Objectives of the Practice

- To improve (enrich) the Student Centric Learning using modern teaching aids effectively
- To enrich the regular classroom teaching with the online lectures from SWAYAM, NPTEL and other MOOCs conducted by various worldwide universities
- To use modern teaching aids such as smart boards, projectors, PowerPoint presentations and animated videos for regular classroom teaching in order to enhance Student Centric Learning.
- To conduct Value Added Courses to educate the students in cutting edge technology

The Context:

The fundamental ideas of the subject are difficult for students to understand through traditional classroom delivery. So, regular classroom teaching is not sufficient to teach modern technologies to engineering students. The following modern teaching tools are used to enrich the effective teaching-learning process:

Smart Classroom

A smart classroom is a technology-enhanced learning classroom that magnifies the way of teaching and learning digitally. Visual learning using smart technology elements like graphs, images, charts, presentations are highly effective to grasp the subject quicker. Smart Classrooms helps in developing critical thinking and problem-solving skills in students.

LCD projectors

Computers with internet facilities connected to LCD projectors are available for the faculty members to use PowerPoint presentations, NPTEL video lectures, and animations for handling classes which improves the understanding of students

MOOCs

The institution established NPTEL Local Chapter which provides E-learning through online Web and Video courses for various streams. NPTEL videos of 3.5 TB are available for the faculties. Faculty members motivate and help the students to complete the NPTEL, SWAYAM and other MOOCs courses by acting as a Mentor for students. Assignments and tests in MOOCs help in improving critical thinking and problem solving ability of students

Virtual Labs

Faculty members utilize the Virtual lab facilities provided by the MHRD for doing experiments in laboratory classes. The Virtual Labs provides remote-access to simulation-based Labs in various disciplines of science and engineering.

Google Classroom

Faculty members utilize open source learning management system like Google Classroom for providing course materials, question bank, lesson plan and assignments. It was extensively used in pandemic period.

Google Forms

Google forms are used for conducting online MCQ Quizzes. The information is stored as a spreadsheet automatically records the answers. The spreadsheet then populates the responses from the quiz or survey in real-time. Participative learning is enhanced by Google Forms.

Video Conferencing

The open-source video conferencing ICT tools like Zoom meetings, Google meet, and Webex meetings are used in extra-ordinary situations like COVID-19 for conducting

regular academic classes, webinars, technical talks, alumni interactions and motivational talks, etc and this provides an enjoyable learning.

Discussions with renowned academicians and the implementation of this approach of enhancing teaching and learning using modern teaching aids and methodologies provide better results.

Case Analysis / Applied Problems Solving

To develop the conceptual skills, to identify & formulate and solve problems innovatively, students undertakes Case Studies and Simulation Exercises. Cases are generously used in illustrating the contextual setting and information adequacy which characterizes situations in fields of MIS, SAD, SE and developing computer application skills. Case analysis develops decision making skills under simulated conditions and highlights the fact that the real situations are more complex than what the students learn in theory class viz. Debate / Role Play / Business Games / PDPs / Aptitude & Tech. Skill Dev. / Soft Skills Development / Value Aided Courses / Concept Classes / Workshops / Industrial Talk

Tutorials

In tutorial classes, students undertake group discussion, problems faced in lectures room, quiz, class test, work exercise, in supervision of a faculty. These measures improve the knowledge in the subject and appropriate planning of any work for achieving the objective.

BEST PRACTICE II: Student mentoring & advisory system

Objectives of the Practice

- To foster healthy and positive professional relationships between students, teachers and other stakeholders.
- To identify students' academic needs and help them to acquire strong foundational knowledge in Engineering, Science and Technology.
- To nurture the students' creative minds and help them do innovative projects with social relevance as nation builders.

- To help students identify their areas of interest and groom them to achieve their career goals.
- To cultivate moral values and inculcate healthy learning habits that will make them develop as an informed, skilled and ethical professional.

BEST PRACTICE III: Best Practices By Institute

- College has setup an Industry Advisory Board with an objective to establish strong industry connects, conduct workshops; such as FDPs with collaboration with industry and provide suggestions for process improvement as well as curriculum improvement.
- The college follows an outcome base education by developing course plans with objectives and outcomes
- The college has launched Alumni Portal to connect with the alumni and utilize their services, like Guest Lectures, Internship opportunities, placements, etc.,
- Regular training & placement is imparted in the area of communication skill and aptitude to the students to make them employable.
- The college has encouraged students to pursue internships during the vacations and acquire necessary problem solving skills
- Parents meet are conducted to take the regular feedback about the progress of their ward and overall development of the college.

BEST PRACTICE IV: Green Initiative

- Solar Energy
- Biogas plant
- Wheeling to the Grid
- Sensor based energy conservation
- Use of LED bulbs / power efficient equipment
- Wind mill or any other clean green energy
- Clean and green campus
- Built environment with Ramps/lifts for easy access to classrooms