

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

Use of Teaching-Learning techniques:

- Incorporating the maxims of teaching such as known to unknown, whole to part, concrete to abstract etc., into Teaching Learning process as much as possible to make it more effective.
- Adapting to different learning styles of students such as verbal, visual, kinesthetic, interpersonal etc., while planning the Teaching Learning process as much as possible.
- Activity based learning such as group task, student seminar etc.
- Assigning a topic to the group of students and guiding them to give presentations.

Table: Innovative Practices

Pedagogical Initiatives	Use of ICT	Mentoring students with backlogs	Special classes to 3rd and 4th year students	Software Trainings	Expert Talk
Incorporating the maxims of teaching to different learning styles Activity based learning	Use of MOODLE Access to study material and question bank Online quiz Encouraging students to use online resources	Remedial classes for academically weaker students Extra classes for hostelers on specific subjects as per request from students Encouraging peer teaching	Preparing for GATE exam General Aptitude – quantitative, verbal ability etc.	Workshops FDPs	Faculty seminars Lectures from Industry experts

1) Use of E-resources and ICT

- Learning Management System (Moodle) has been provided to enhance teaching learning process. (<https://guru.gndec.ac.in/>)
- Providing quick access to the Instructional material, PPTs, Question Bank etc., by hosting them on the MOODLE platform on the Department website to help students to learn the concepts at their convenient time.
- Conducting online Quiz on MOODLES through Institution website.
- All the attendance is being taken on MOODLE platform, guru.gndec.ac.in
- The assignments are also given on MOODLE through institution website.
- Motivating the students for using Internet facility available in the department for deeper inquiry into the subjects.
- The Mentoring and Professional Development examination is conducted online through institute website.

- Each classroom is equipped with LCD projectors for advanced teaching practices.
- 2) Mentoring Students
 - Mentoring students with backlogs by concerned subject faculty before supplementary examinations.
 - Mentoring students on continuous basis through mentoring class and one-to-one interaction.
 - Encouraging Peer teaching to enable students to attain self-learning skills.
 - 3) Encouraging Advanced Learners
 - Encouraging the students to give presentations on recent advances in computer science and engineering, related to the concerned subject.
 - Conducting special classes to 3rd and 4th year students for GATE.
 - Conducting Mock GATE examinations for 4th year students.
 - Conducting General Aptitude classes for 3rd and 4th year students to enhance their employability skills.
 - 4) Software Trainings
 - Organizing workshops/training programs on various software's and platforms etc., to make them industry ready.
 - Organizing FDPs/Workshops to faculty on new software and Sponsoring faculty for FDPs/Workshops at higher learning Institutes, which will indirectly benefit the students in the Teaching Learning process.
 - 5) Covering Topics beyond curriculum
 - Faculty seminars / lecture from experts from Industry on topics beyond curriculum in each course in regular class work.
 - Organizing student seminars on topics beyond curriculum.
 - Demonstration of advanced topics beyond curriculum by referring research journals and NPTEL materials
 - 6) To help students monitor and reinforce their learning
 - Conducting class tests from a previously circulated Question bank.
 - Guiding the students to solve previous GATE problems.
 - Demonstration of advanced topics beyond curriculum by referring research journals and NPTEL materials.
 - 7) Effective and innovative practical Teaching-Learning by actual case studies/ Working models/ projects, etc.
 - Students are guided by the faculty to develop projects.
 - One of our project team created project for Indian Army.

- 8) There are societies in the department for the overall development of students which enhance their ability to apply learned skills, for example Computer Society of India, Data Science Club, and Centre of Excellence in collaboration with Sabudh Foundation.
- 9) Textbooks, reference books, and study notes prepared by teachers are used for instructions are available in both offline as well online mode for the convenience of students.
- 10) NPTEL lectures are available for various courses on the institute LAN.
<https://mooc.gndec.ac.in/>

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