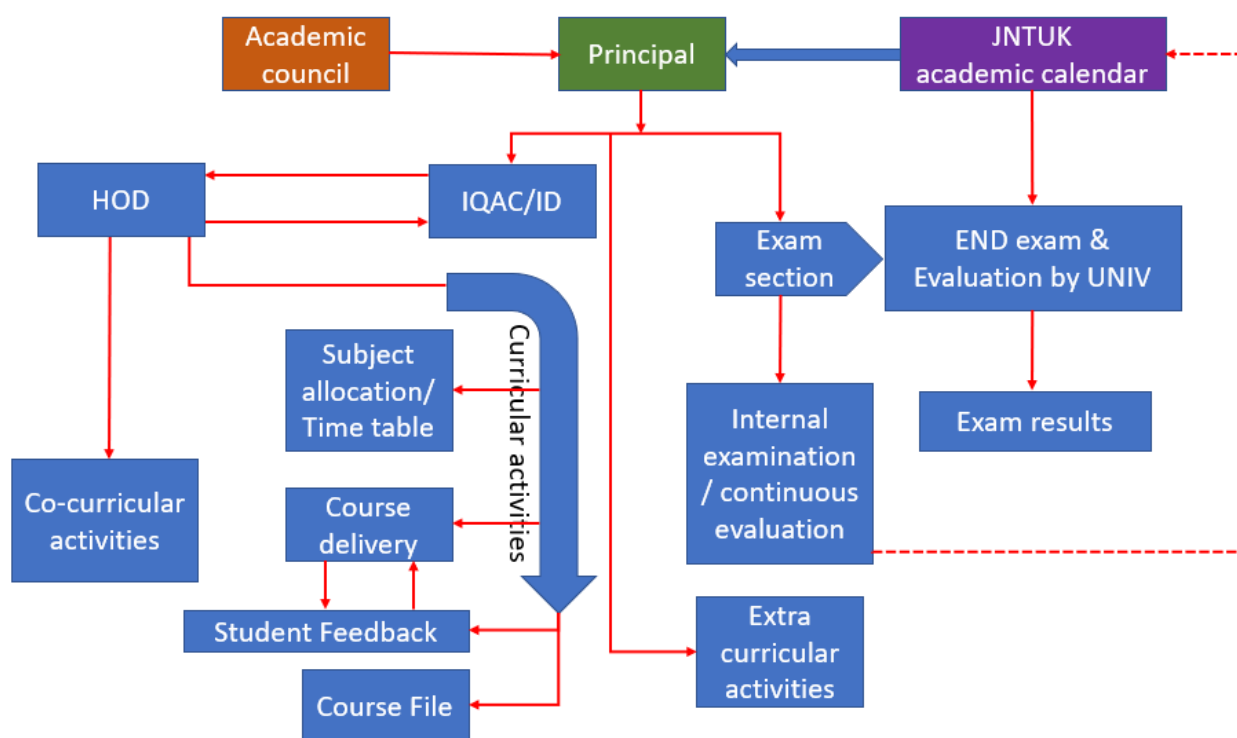


LIMAT has two distinct divisions to implement the latest teaching pedagogies

1. Instruction division
2. Education Development Division

Instruction Division

Chief of Instruction division shall be appointed by the principal from amongst the Professors for a period of two years. ID shall be responsible for all academic matters related to teaching-learning-evaluation and any other duties assigned by Principal. It provides on suggestions to the College Academic Council (CAC). The CAC is constituted every year comprising of all the heads of departments as its members led by the principal. Based on the academic calendar of the University, the CAC prepares the college academic calendar and circulates to the departments. The Department head along with senior faculty and professors, prepares the departmental academic calendar, timetables by taking inputs from the IQAC and CAC. The allotment of the courses to the faculty is based on the submission of expression of interest and according to their experience and specialization. After course allotment, faculty must prepare a course document called handout with a detailed teaching plan and notes. The preparation of teaching plan helps in effective coverage of syllabus in time. The Instruction division will be responsible for Academic Planning, Finalizing Course allotment on recommendations of HOD, Handout wetting compilation, Preparation of Master Timetable, Tracking Internal-Assessments, Periodical Academic Audit of all Departments. The teaching plan and syllabus copies are made available in the college website. Apart from traditional methods, curriculum is imparted through innovative teaching methods such as presentations, group discussions, quiz, seminars, industrial visits and projects. The institution is ICT enabled for making the teaching learning process joyful. Two internal tests are conducted in a semester. Transparency is maintained in the evaluation process. The makeup classes are conducted for students who find certain topics in the course challenging. The tutorial classes are held to help the students in problem solving. The institution follows the mentoring system to enhance the academic performance of students. A faculty is allocated as mentor for a group of every fifteen. The holistic performance of the student is continually monitored and guided. IQAC will conduct academic audit semesterly for effective implementation of the curriculum through enhancing the quality of classroom teaching. The Instruction division creates awareness among the faculty about the evolving trends of pedagogy and outcome-based education by conducting various workshops and faculty development programs in the institution. The CAC interacts with the industry professionals and identifies the technical and other skills needed by the industries and thereby train the students in the required skill sets time to time.



Activities of Education Development Division (EDD)

The activities of Education Development Division (EDD) is aimed at planning and executing the virtual classrooms or streaming the pre-recorded sessions (self-paced learning), live streaming of sessions, provision for controlled access to content.

Chief of EDD shall be appointed by the principal from amongst the Professors for a period of two years. The EDD shall be responsible for all Education development activities associated with teaching-learning and any other duties assigned.

The following activities are planned to accomplish the task:

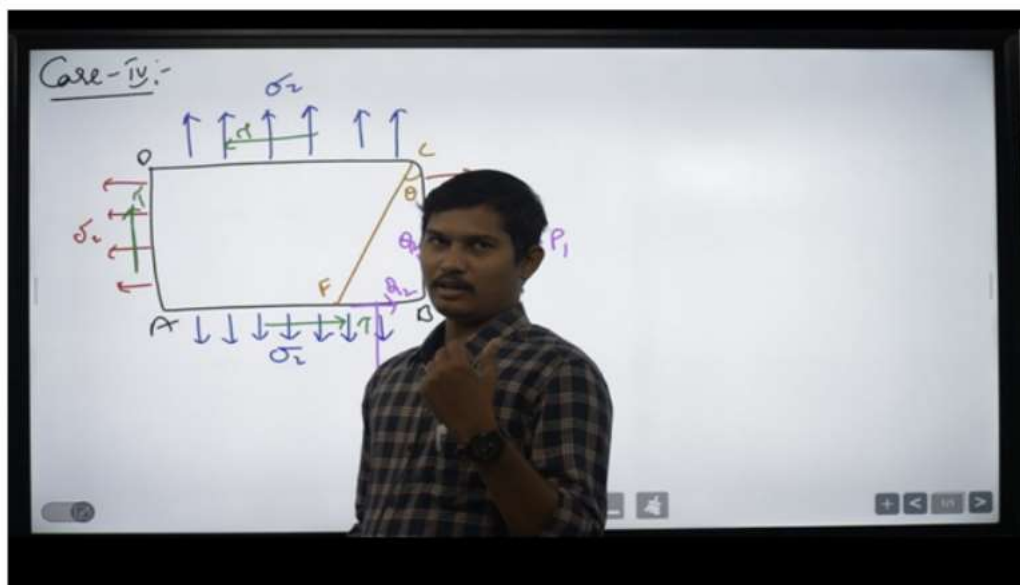
- Rationalization of units into modules
- Creation of e-notes
- Sequencing of modules into units and units into full course
- PowerPoint presentation (PPT) slides preparation based on the lecture notes
- Ascertaining originality of Module content and quality of PPT slides
- Finalization of course content
- Planning conceptual and application part of unit
- The technical concepts and aspects of the course content will be taken care of by the concerned vetting faculty and the concerned Head of the departments

- Video animation for PPTs to impart practical knowledge and current trends of the concerned course
- Make use of the digital touch panel, which is an upgradation to the chalk and talk technique
- To train the resource persons with simple techniques of animations
- Scheduling practice sessions
- Scheduling video sessions
- Taking the responsibility for verifying the video recordings (modules)
- The quality of the recorded modules will be initially cross verified by the EDD team and then cross verified by the concerned branch technical expert or HOD in view of the lecture notes and technical aspects of the topic
- Capsule preparation for the finalized video recordings
- The capsule comprises of
 - Lecture notes
 - PPT
 - Finalized video record of the module
- Identifying the skills needed for accommodating the industry requirements
- To create a platform for streaming videos
 - To create website for the objective
 - To create encryption for the data
 - To create server for storing the videos

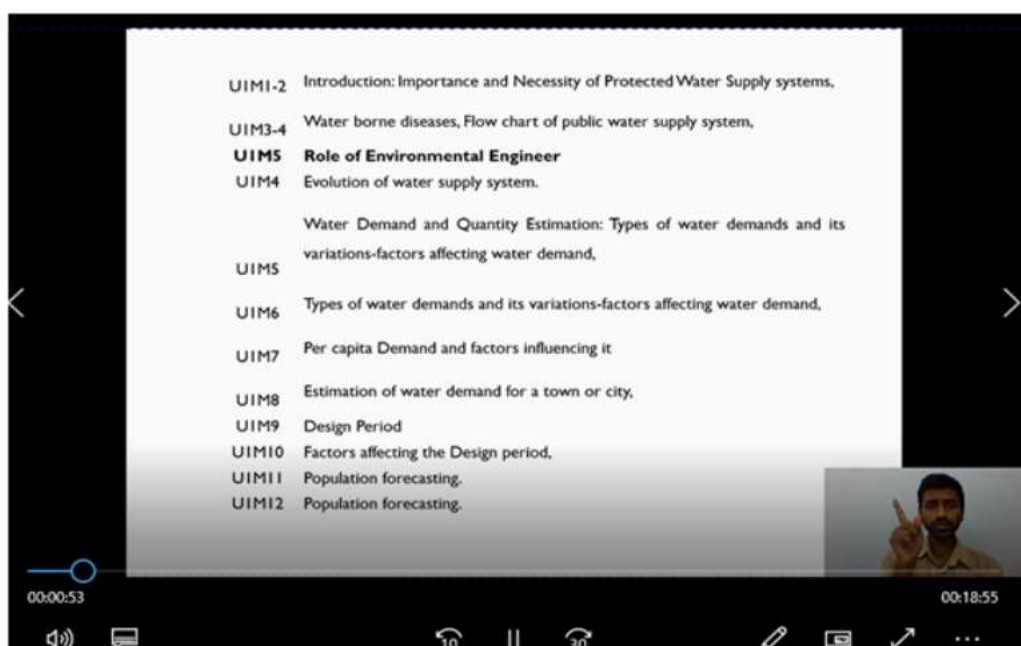
Modern Training Methodologies towards skill enhancement:

Education Development Division (EDD) shall be responsible for all Education development activities related to teaching-learning Methodology and any other duties assigned by Principal. The following activities are planned to accomplish the task: Rationalization of units into modules Creation of e-notes Sequencing of modules into units and units into full course PowerPoint presentation (PPT) slides preparation based on the lecture notes Ascertaining originality of Module content and quality of PPT slides Finalization of course content Planning conceptual and application part of unit The technical concepts and aspects of the course content will be taken care of by the concerned vetting faculty and the concerned Head of the departments Video animation for PPTs to impart practical knowledge and current trends of the concerned course Make use of the digital touch panel, which is an up gradation to the chalk and talk technique To train the resource persons with simple techniques of animations Scheduling practice sessions Scheduling video sessions Taking the responsibility for verifying the video recordings (modules) The quality of the recorded modules will be initially cross

verified by the EDD team and then cross verified by the concerned branch technical expert or HOD in view of the lecture notes and technical aspects of the topic Capsule preparation for the finalized video recordings The capsule comprises of Lecture notes PPT Finalized video record of the module Identifying the skills needed for accommodating the industry requirements To create a platform for streaming videos To create website for the objective To create encryption for the data To create server for storing the videos



Digital touch panel being used by the faculty

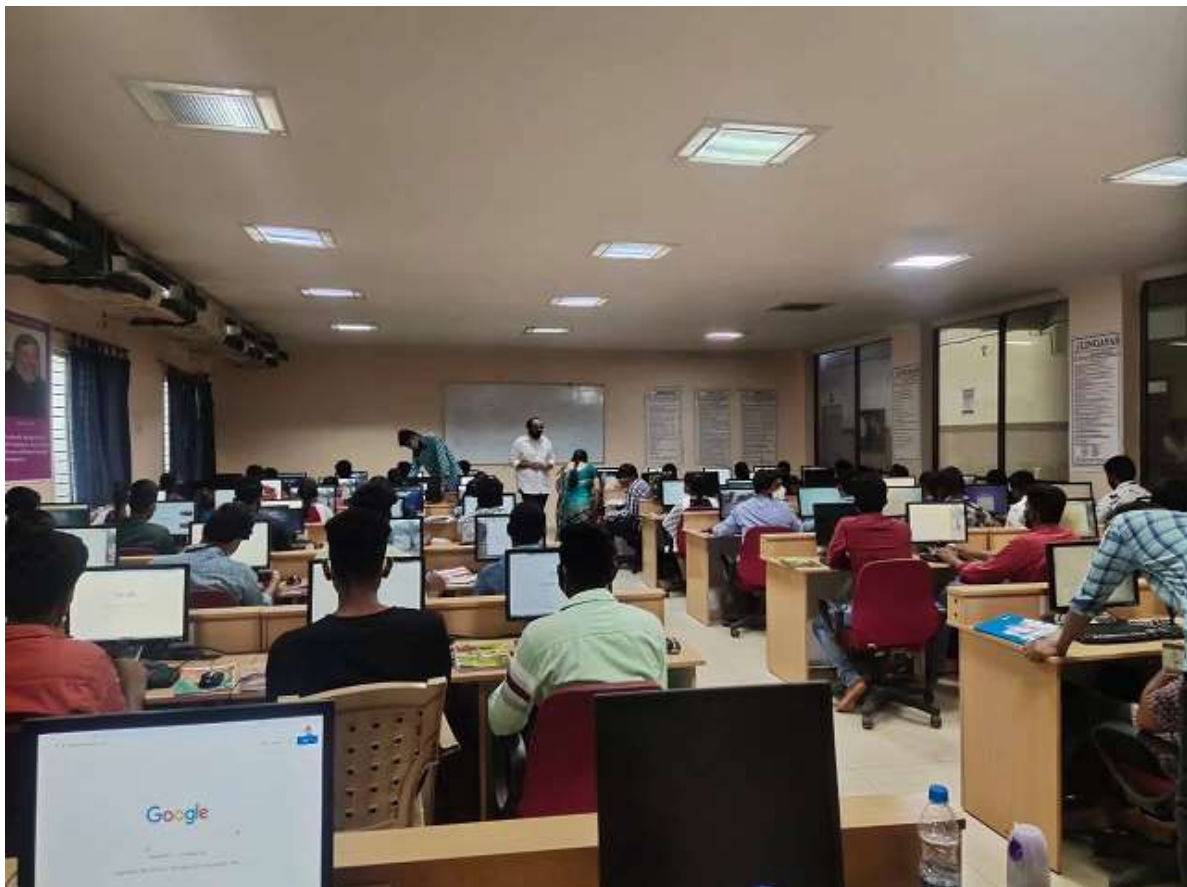


Picture in Picture mode screen recording being used by the faculty

Use of Various instructional methods and pedagogic initiatives

Faculty members of ECE department follow state-of-the-art teaching practices in the classroom apart from the conventional methods, such as blackboard teaching, sharing learning materials and questioning in every class. These advanced methods employed helps the students to actively involved in the classroom.

- a) **Problem based learning:** Problem-based learning is a unique technique that uses practical teaching- learning methods to present new material in the form of a problem that aims at a solution.





b) Learning through Product Development:

Product Development is a successful approach that addresses every challenges and needs of the society and industry. Project-based learning is a comprehensive approach to teaching and learning that is designed to engage students in the investigation of authentic problems. Faculties

motivate and guide the students for their contribution to develop new projects, especially in coding.

Procedure to select students for research and consultancy (R&C) activities

The following process is followed to select students for R&C activities

- The R&C collects the list of interested students to be associated with R&C activities.
- The R&C group students will be screened at first level.
- Another test will be conducted at a second level for further screening the students.
- Different Tests for different groups will be conducted.
- Student can take test of his choice to enter the specified R&C group.
- Those students who clear the test will be in the final list.
- The list is finalized only after approval of the R&C chairman, convener and coordinator.

c) Open book test: Open book test to improve analytical and critical thinking skills of the course

d) Project based and self-learning: Students are encouraged to form into groups to work on various domains and take up research related projects as per industrial requirements contributing to the society at large. Faculty members encourage the use of open-source software while carrying out student projects.

e) Incidental Learning:

This includes a coding club, and the main objective of coding club is to develop the coding skills of the students to fulfil the contemporary requirements of the industry and society. Coding Club helps students during placements drives and can also pave a way to fetch awards to the institution through various programming contests.

Different levels of curriculum for coding club are prepared for every year.

- A problem will be assigned to the students at the beginning of the session, they need to solve it within a given stipulated time by their own or in a group based on the problem.
- After solving it, they have to send evidence to the given mail-id, for further process.
- Those who have not solved in that given session, they need to find a solution and submit the same before moving onto the next session.
- Students with decent performance will be rewarded with appreciation letters in every semester.

f) Facilitating Self Learning:

- After Completion of a certification course student would become specialized and moreover, it doesn't take much time to finish. It gives an additional value to their career and it bridges the gap between knowledge & skills also exhibits credibility and commitment. Our students

participated various courses during their academic semesters from various organizations.

g) Learning through Collaboration:

- The Department has an association activity committee. Under this, various programs such as quizzes, seminars, jams, etc., will be conducted. These activities are conducted with a regular interval of time and these events help the students to explore themselves as good stage speakers as well as technocrats.
- In Tutorial hours, team-based learning/group based learning is followed and it is a structured form of small-group learning that emphasizes student preparation beyond the class and application of knowledge in class. Students are organized strategically into diverse teams of 5-7 students that work together throughout the class.
- Each group may be assigned a problem statement by the faculty and a report on the problem will be provided by the respective group leader.
- The focus of the tasks would be centered on learning new technologies, enhance the knowledge on a particular topic, studying new tools to be in pace with the industry, perform mini projects, etc.
- Faculty encourages each group to disseminate the knowledge they have gathered to others.
- Help students to gain a deep understanding of the subject matter.
- Develop students' ability to think and acts as a professional in respective discipline. Develop students' basic academic skills, such as identification and evaluation of relevant resources, effective communication, effective time-management, etc.

h) Teaching through Technology:

The lectures are delivered by the faculty through a set of educational tools, such as

- Chalk and talk, faculty uses green glass board for delivering the lectures.
- Power point presentation using projectors
- E-learning through open-source software
- E- Learning Digital Board
- Group discussions: faculty supports students for active participation in group discussions during tutorial classes.
- Quiz

i) Use of Information and Communication Technology (ICT) based teaching methods: ICT is the combination of various digital media types such as text, images into an integrated multi-sensory interactive application or presentation to convey information to an audience.

h) Application oriented approach: This approach attempts to explain the application part of a particular concept after explaining the concept.

i) Tutorial class: One to one interaction between the faculty and student help to gain the confidence in weaker students.

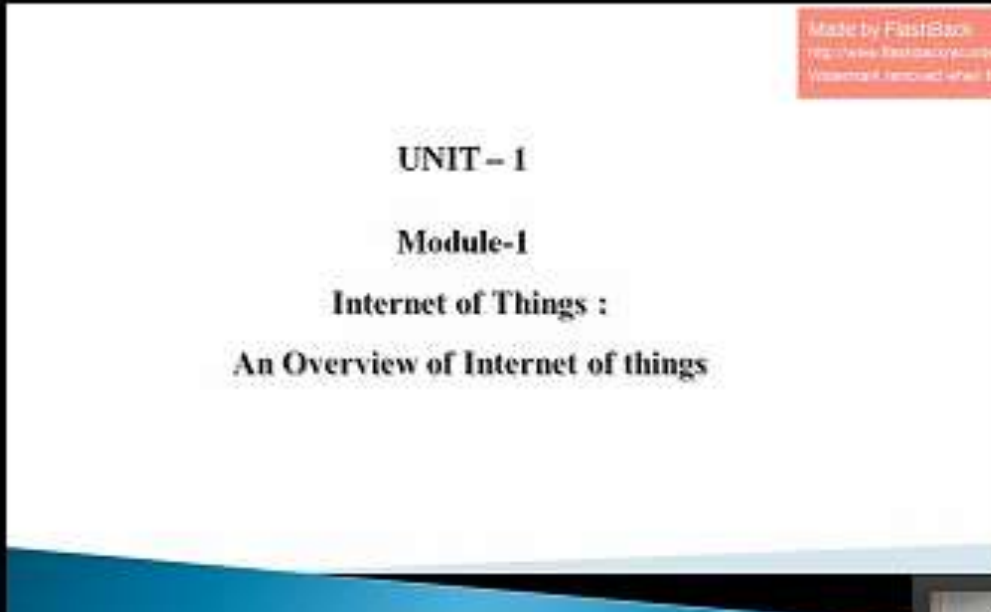
j) Use of Website: Faculty upload the study materials in the college website which are accessible to the students.

Use ICT facilities



Online teaching using CISCO WEBEX:

	A	B	C	D	E
1	webex ID : 389 293 699	User id : seerina1973@gmail.com	Webex id: meetingsapac16.webex.com		
2	S.NO	DATE	SUB	TIME	SCREEN SHOT
3					
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UNIT - 1

Module-1

Internet of Things :

An Overview of Internet of things

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