Akanksha - Learning Management Portal

Akanksha, a Learning management system (LMS) creates a positive and interactive environment for the faculty and the students. It is a gate way to enthusiastic teaching learning process. It also coordinates and helps examination department with the processes related to issuing of hall tickets; grade Sheets, convocation, transcripts, etc.

Akanksha an e-learning platform is designed to provide a pool of different academic resources like interactive medium of videos, self-learning material of various courses, programme guides, previous year question papers etc. in a very interactive way.

IARE have a dedicated studio room to develop the LMS Content. LMS provides course stack which includes instructional material like course descriptors, course content, lecture notes, concept videos, tech talk topics, open ended experiments/problems/project ideas, tutorial question bank, definition and terminology, model question paper-1 and model question paper2.

During pandemic Akanksha has made the student learning process much easier. It made online learning accessible to students around the clock and catered the needs of the students.

Features:

IARE have a dedicated studio room to develop the LMS Content. . LMS provides course stack

Course Stack (Instructional Material)

- Course descriptors: includes course objectives, course outcomes (CO), program outcomes(PO), CO-PO mapping and course plan.
- Course content of each course: syllabus
- Lecture notes: Instructional material
- Concept videos
- Tech talk topics
- Open ended experiments/problems/project ideas
- Tutorial question bank
- Definitions and terminology
- Model question paper-1
- Model question paper-2

Above mentioned course stack material is made accessible to the students 24/7 for their preparation and support. All the necessary elements needed for the appraisal of the students' academic record is made available through Akanksha.

Akanksha Home Page: It provides all the learning materials related to all the courses and cater all the needs of the each course learning material as shown in figure 1.
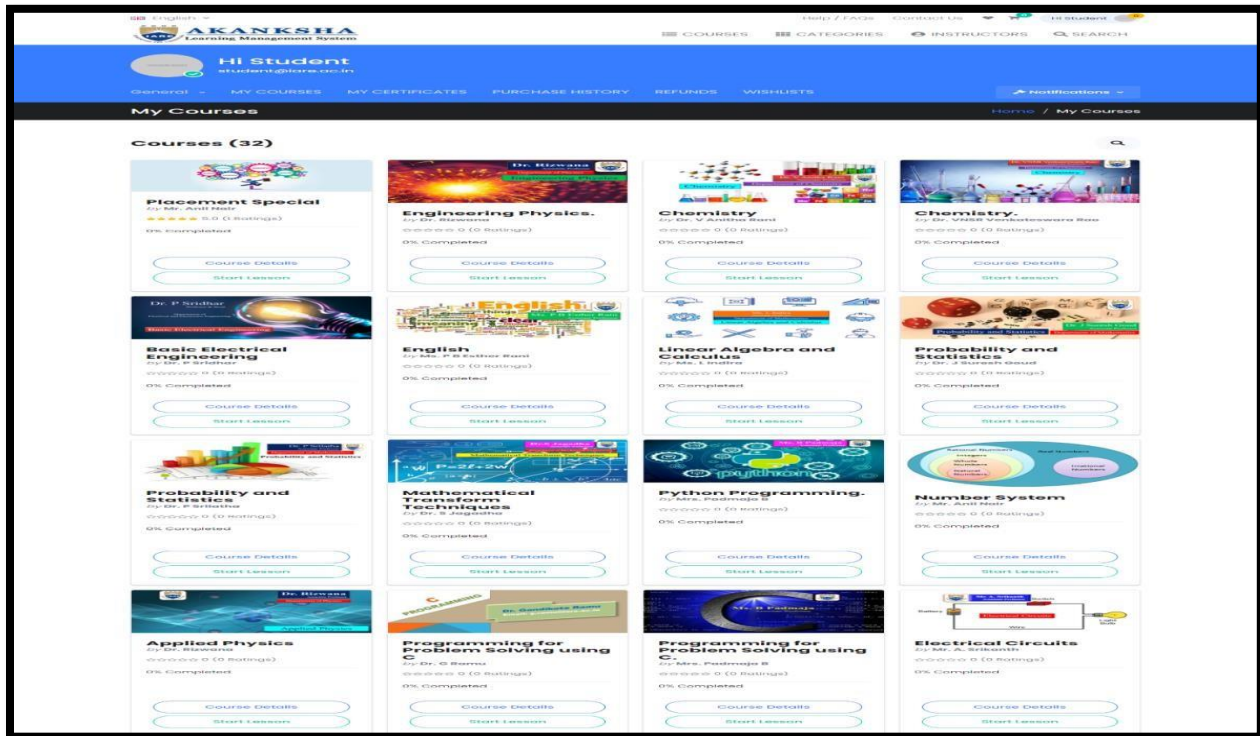

Figure 1 - Akanksha Home page

Course Stack: Instructional material related to the course description, course content, lecture notes concept topics, tech talk topics and open ended experiments is displayed in Akanksha as in figure 2.
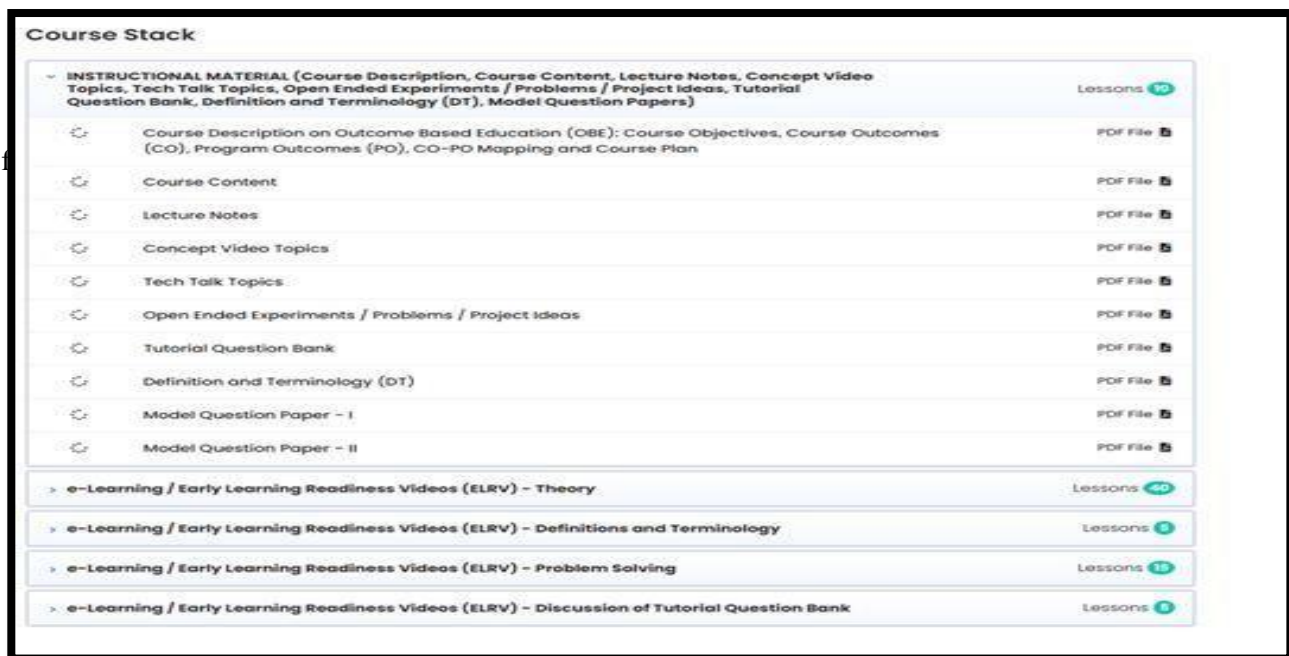

Figure 2: Course Stack

e-Learning Readiness videos (ELRV): IARE has a YouTube Channel, where you can access various videos. Our directory lists 5500+ video lectures made by our distinguished faculty in 158+subject areas.

With a view for systematic development of the e-content for the IARE Learning Management System – AKANKSHA, the following guidelines which propose to lay down technical and production standards:

Four quadrant approach: The four Quadrant approach in e-learning system has the following components:
Quadrant-I is ELRV: which shall contain Video and Audio Content in an organized form, Animation, Simulations, video demonstrations, Virtual Labs, etc.
Quadrant-II is e-Content: which shall contain PDF, Text, e-Books, illustrations, video demonstrations, documents and Interactive simulations wherever required.
Quadrant-III is Web Resources: which shall contain Related Links, Wikipedia Development of Course, Open source Content on Internet, Case Studies, books including e-books, research papers & journals, Anecdotal information, Historical development of the subject, Articles, etc.
Quadrant-IV is Self-Assessment: which shall contain Problems and Solutions, which could be in the form of Multiple Choice Questions, Fill in the blanks, Matching Questions, Short Answer Questions, Long Answer Questions, Quizzes, Assignments and solutions, Discussion forum topics and setting up the FAQs, Clarifications on general misconceptions.

A common facility for Early / e-Learning Readiness Videos (ELRV) were created in the year 2017enables the faculty to prepare educational content in the chosen course. The facility is equipped with state of the art fully acoustic lecture recording studio floor with multi-cam setup. The videos are recorded in full HD (capable of producing in 6K) and do have excellent post production applications & equipment's. Kindly refer here for detailed equipment and software list.

E-Learning Readiness Videos help students in the form of online tutorials. As depicted in figure 3, course experts deliver ktrs through online recording of the lectures. They provide a lot of information to the students nlearning the course content and expanding the Knowledge.

Figure 3 - ELRV Video

Benefits of ELRV teaching:

- Provides diverse teaching techniques for learning.
- Can be used to simplify and explain complex problems.
- Can allow students to access the learning materials as often as required.
- Allows students to learn at their own pace, with instant playback, rewind and pause.
- Reduces frequently asked questions from students.
- Can be re-used.

Resources and Services for Creating ELRV Lectures – ICT Studio

The ICT (Information and Communication Technologies) Studio provides resources and training for video capture, production and publication. The ICT Studio is equipped with:

- Technical hardware - cameras, microphones, external audio recording devices, or modified tripods.
- Post Production hardware and software - for video and audio mixing.
- Scanning equipment - for transferring physical to digital.
- Recording room - ideal for recording voice over sessions, web-casting recordings or streams.

Implementation of ICT in engineering education involves use of ICT for delivery of classroom lectures, demonstration and conduct of laboratory experiments, course and class management and administration. Classroom teaching is assisted by presentations that contain sufficient material, circuit diagrams, network diagrams, process diagrams and flowcharts.

Softcopies of the books prescribed in the syllabi are used while delivering the lectures. While explaining a circuit or program simulation software and compilers may be used in classrooms for better understanding of the lessons. Animations and visualizations can be used to demonstrate the working of a component, functioning of a circuit or process.

Simulation software, engineering design and evaluation tools, mind-mapping tools e.g. MatLab, Mathematica, MathCad, Octave, OrCAD, SPICE, AutoCAD, Solid Works, Inspiration, MindManager, etc. can be used in networked computing laboratory to demonstrate and carryout experiments.