ICT ENABLED TOOLS FOR EFFECTIVE TEACHING-LEARNING PROCESS

Information and Communications Technology (ICT) can impact student learning when teachers are digitally literate and understand how to integrate it into the academic curriculum. ICT supports, enhances and optimizes the delivery of content by providing teaching tools, self-learning and assessment tools.

TEACHING TOOLS

Apart from conventional chalk and talk lectures, the following innovative ICT enabled teaching approaches are being practiced in the institution.

- Simulation
- Mind map
- Video Lecturing
- Animation
- Seminars
- Virtual Labs (V- Labs)
- Google classrooms
- Google /Microsoft teams meet.
- Terv tool is used for programming assistance in teaching curriculum based laboratories
- V- Labs are used for conducting academic lab courses virtually
- Smart classrooms with LCD projectors, laptops pave a way for learning and understanding the curriculum with ease.
- Study materials, video lectures of theory and laboratories, question bank and assignment topics are also made available in Smart Camp, KSRCE College Management System
- Further, faculty also form Whatsapp groups with the students of the class and share the necessary course material like lecture notes, assignment topics, question bank etc.

SELF LEARNING TOOLS

- Great learning tool is available for self learning certification courses and assessment
- Digital library enables access to wide range of IEEE journals and magazines. KSRCE Library management systems enables to read journals, question banks and e- books
- Students are bestowed with **NPTEL/ SWAYAM** lecture videos, e-materials, e-books and Question banks. Students make use of the e-journals for updating their knowledge. E-learning resources that are available to enrich the knowledge of the students include,
- IEEE Explore
- NDLI (National Digital Library of India)
- Delnet (Developing Library Network)
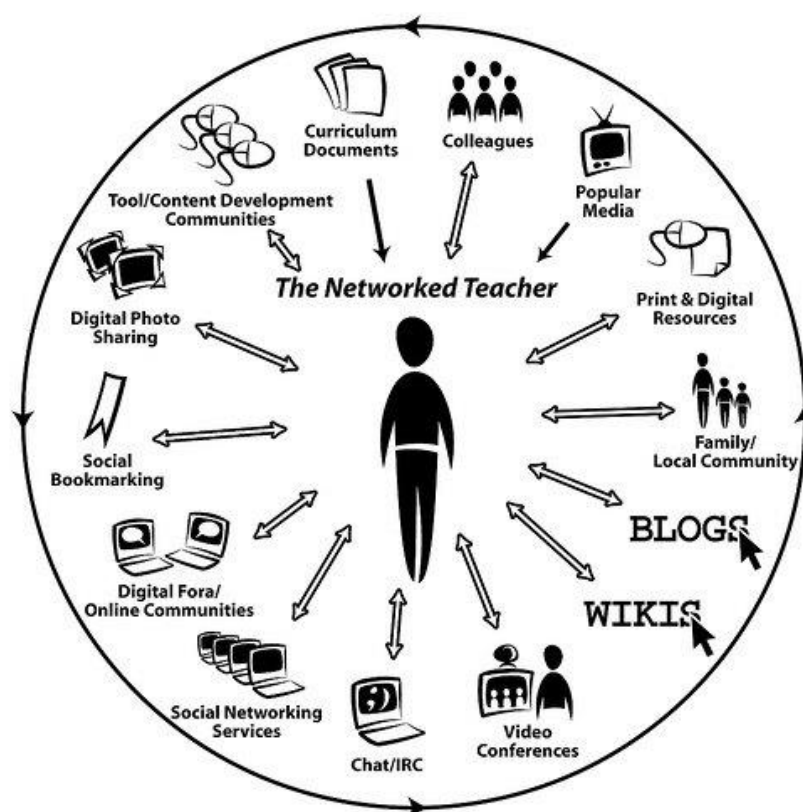- Mooc
- Coursera
- EdX
- Moodle

ASSESSMENT TOOLS

- The institution supports various online coding platforms and helps assessing the students performance
- Digipro, google forms, quiz star are used for conduction of online quizzes and assessments.
- Skill rack, AMCAT, CO-Cubes and Terv Tool are used for assessing the aptitude and verbal skills
- Terv tool is used for assessing the aptitude.

ICT BASED TEACHING METHODS

Apart from regular chalk and talk lectures, the following innovative ICT enabled teaching approaches are being practiced in the institution.

• Technical quiz	• Seminars
• Role play	• Puzzle
• Group Discussion	• Models
• Mind Map	• Multimedia
• Simulation	• Demonstration
• Animation	• Z to A APPROACH
• Flash Card	• Brainstorming

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- Coursera

BRAINSTORMING

Process for generating, creative ideas and solutions through intensive and freewheeling group discussion. Every student in the class is encouraged to think aloud and suggest as many ideas as possible, no matter seemingly how outlandish or bizarre. Analysis, discussion, or criticism of the aired ideas is allowed only when the brainstorming session is over and evaluation session begins.

MIND MAP

Mind map is a visual tool used to organize information graphically. It is hierarchical and represents relationships among parts of the whole. A mind map usually begins with a single concept, and then drawn as an image in the center of a blank page, where associated representations ideas will be added, such as words and images. Main ideas will be connected directly to the central concept, and other sub topics branch out from the major ones. Mind mapping helps to think, collect knowledge, remember and create ideas.

VIDEO LECTURE

Video lecture is a modern method of learning which comes with numerous benefits of its own. This method is individual focused, easy for teachers, and keeps the students interested in the whole process. Video lectures are one such way, using which students can improve the overall learning experience of classroom. With video lectures, students can learn anywhere from their mobile devices: laptops, tablets or smart phones. With video lectures, all students can learn at their own individual pace, which will maximize the results of e-Learning.

ROLE PLAY

Role play is a technique that allows students to explore realistic situations by interacting with other people in a managed way in order to develop experience and trial different strategies in a supported environment. Depending on the intention of the activity, participants might be playing a role similar to their own or could play the opposite part of the conversation or interaction.

VIRTUAL PROGRAMMING LAB

Virtual Programming Lab is an activity module that manages programming assignments that allow editing, executing programs, enabling automatic and continuous assessment. Digipro and Terv tool is used for programming assistance and training assessments. V-Lab is used for virtual lab conduction.