Radhakrishna Institute of Technology and Engineering (RITE)

Affiliated by (AICTE), MHRD Govt. of India, New Delhi & (BPUT), Govt. of Odisha

ICT e-SLTE Details

Digital Studio: "Electronic Smart Learning and Teaching Learning" (e-STLE)

To prepare against challenges especially, in teaching point of view of recent orientation of entire education system towards digital means, it has become an essential need to prepare, evolve and implement a suitable e-learning system in the Radhakrishna Institute of Technology and Engineering. Regarding this, we developed standard e-content (lecture recordings) for courses taught in different semesters of various engineering streams. These e-learning contents are created through Digital Studio. Digital studios have been named as ICT e-STLE. In this digital studio platform we have recorded lectures of all subjects of previous semester lectures and several online conferences/webinars/FDPs etc. held in studio.

Studio	**ICT e-STLE**
Room Size	40 Feet X 10 Feet

Technical Specification

Description of the system: The system is intended to record classroom lectures using audio-video sources and for live lectures. These lectures have been recorded on suitable tapeless or file-based media. Camera is placed in front of Display Screen of 75 inches which is mounted on a wall and connected to the CPU (i3/6thgeneration/500GB HDD/ 4GB DDR4 Ram) one CPU is placed in studio for projector. This Screen works as monitor for desktop PC for presentation purpose.

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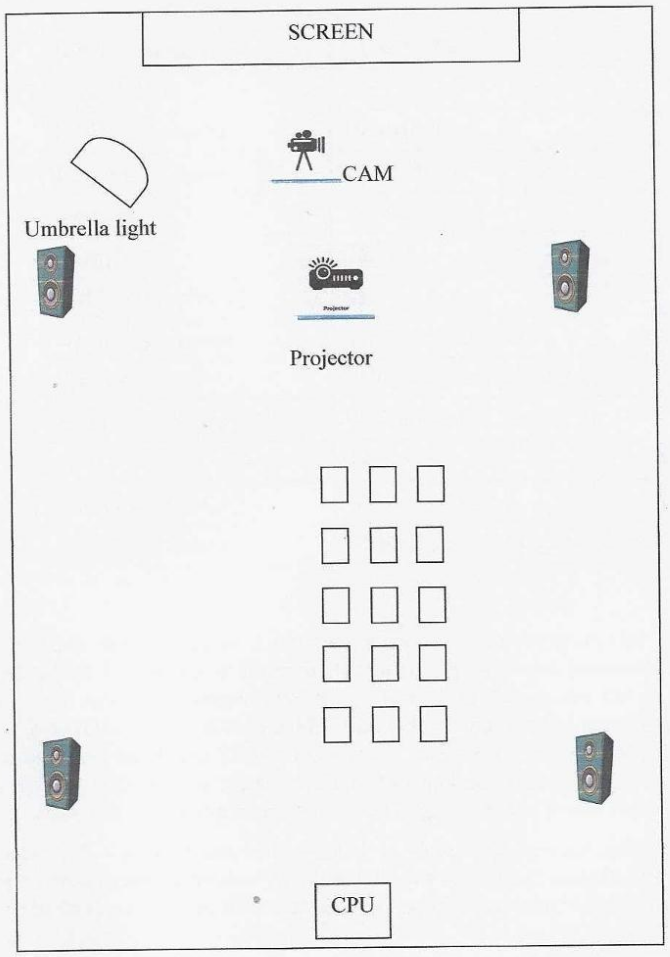

General Diagram of e-STLE Room

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e-STLE Room Specification:

Display Area	9 Feet*9 Feet
Aspect Ratio	16:9
Native Resolution	1920-1080
Response Time	10sec. delay
Voltage	220 volt ac
HDMI	Slot-01
MIC (Microphone)	01
Operating System	Windows 10(64bit)
Speakers	Zebronic 5.1subwoofer
RJ45	Wifi(dongol)
USB	3.0
OS Support	Windows 10&11
Front Connectors	USB,audio panel,power switch

Camera is placed in front of Screen is the main source of video capture. One camera is placed in the Studio which is connected through the video capture card installed in the computer systems and also separate computer system is placed in the studio for recordings (i7/9th generation/ 1 TB HDD/ 8 GB DDR4 RAM). This video capture takes input from camcorder as video source and also takes audio input from audio receiver through AUX cable. The teacher is provided with a clip type wireless lavalier microphone. This lavalier microphone gives output to the audio receiver as input and this receiver gives output to the video capture card.

All these audio-video sources are to be routed to video capture card installed in computer. After that open broadcaster software (which we use for recording) called OBS installed on this computer which made all this audio-video as input source and record both of these in a single video format.

For that, we made setting in OBS. First, we add '+' source as video capture Device in software. Second, we add '+' source as audio input capture which filter noise in audio. The combined output of selected audio and video have the provision to insert logo or any text information before they are recorded on media.

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Camera Specification:

Image Sensing Device	
CMOS Sensor	Examor R CMOS sensor
Focus	Fast Hybrid AF
White Balance	2500 to 9900k
Lens	
Magnification	0.19x
Infrared camera support	NA
Panel	7.3cm TFT
Recording formats	XAVCS,AVCHD,V.2.0
Recording media	MEMORY STICK PRODUO/PRO HD DUO
Terminals	Mass storage,MTP,Micro USB,HDMI(micro)
Battery pack /Compact power adapter	NP-FZ100

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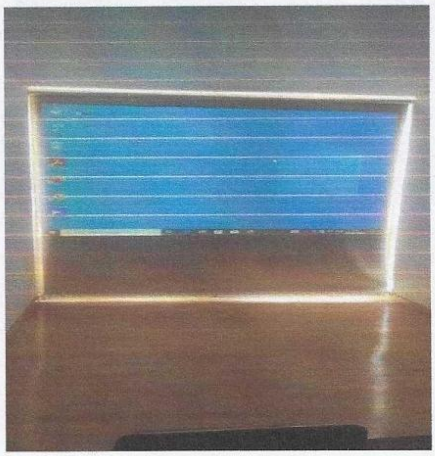
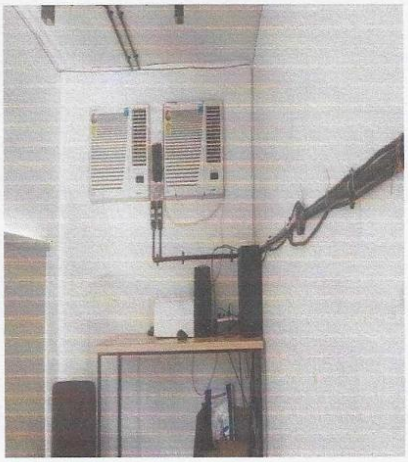
Some Photographs of e-STLE room:





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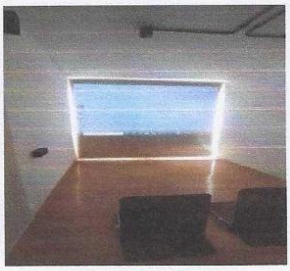
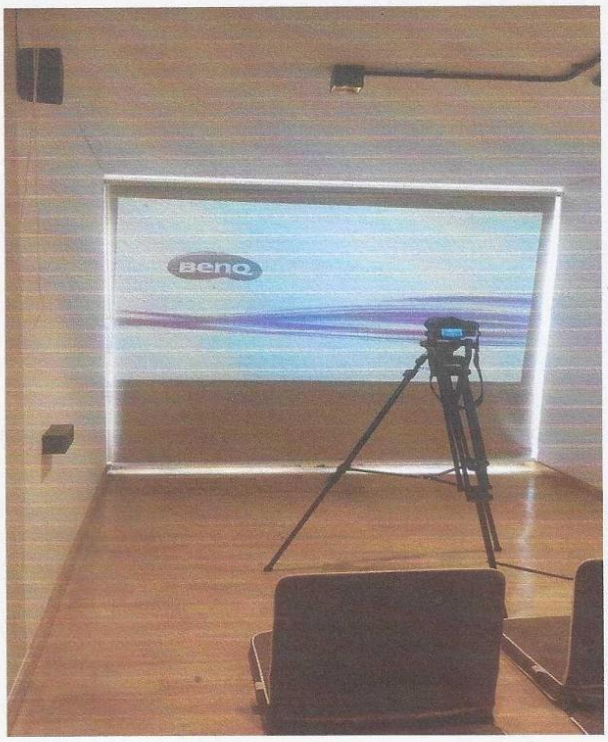

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