24 X 7 Live Online Learning with Excellent Audio-Video Quality

Virtual Classroom is software and hardware based solution optimized for any teaching and learning environment for face-to-face classroom activities and instructions. Teacher and students from across the globe participate in live online classrooms, interact with each other, share common whiteboard, hold group discussions and share multimedia files similar to physical classroom.

Benefits of Virtual Classroom:

• Removal of geographical barriers	• Join the live classes using any internet enabled device
• Removal of time and traveling cost.	• Access the live class at anytime from anywhere.
• Record the lectures for future reference	• Bi-directional communication
• Quicker to setup and organize	• Secure streaming and easy-to-use
• Instant messaging and file transfer	• Enrich with powerful moderation tools

The proposed Virtual Classroom Solution is cloud based, full HD and has software VC systems. It works with Windows and MAC operating system and interoperate with multiple vendors' MCU & endpoints.

The system supports PAL with a PTZ camera. And the software runs on PC, Laptop and Tablets.

The System supports SIP and IP calling for interoperability with another Legacy device.

The proposed system is cloud based with OEM server in India.

The system supports unlimited users with min 8 continuous presence with active speaker detection.

Video Standards and Resolutions – supports H.323, SIP standards for communications, supports SVC, H.264 High Profile / AVC, It supports 1080p 60 fps, 1080p 30 fps,720p 60 fps and 720p 30 fps Contents, It supports content resolution at 1080P at 30fps,

Audio Standards - G.711U, G.711A, G.719, G.722.1, G.722.1C

Software Codec SPEEX Wideband Audio, up to 32 Khz sampling rate.

Audio features Acoustic Echo Cancelling (AEC), Automatic Gain Control (AGC)

Private and group text chat, toggle between multiple content shares.

Dynamic audio input/output selection, audio LPR, error resiliency, DTMF, Keyboard noise reduction

Collaboration, Content: H.239 (H.323), BFCP (SIP), Up to HD/720p

Sharing from all the participants simultaneously. POP up Shared content to a separate window

Security H.460 firewall traversal, AES-128 bit media encryption, SIP—TLS/SRTP

Scalability: The proposed solution is scalable from minimum one plus twenty four to 500 users involving concurrency upto 10. Mobility: It supports both Android and IOS

HD PTZ Camera with ceiling/wall mounts

Video System	HD: 1080p/60, 1080p/50, 1080i/60, 1080i/50,1080p/30, 1080p/25, 720p/120 (supported by network only), 720p/60, 720p/50, 720p/30, 720p/25, 640x480p/240 (supported by network only, optional) SD: 480i, 576i
Pan tilt angle	Pan: ±170°, Tilt: -25° to +80°
Sensor	1/2.7 Inch, CMOS, Effective pixel: 2.07M
Lens	12X, F3.5MM – 42.3MM, F1.8 – F2.8
Shutter	1/30S – 1/10000S
Number of Presets	255
Angle of view	Horizontal 72.5° – 6.9° Vertical 44.8° – 3.9°
Rotation range	Horizontal: ±170°, Vertical:-30° – +90°
Speed range	Pan: 1.7° – 100°/S, Tilt: 1.7° – 69.9°/S
HD output	1 X HDMI: Version 1.3
Network interface	1 X RJ45: 10M/100M Ethernet Interface
Audio inputs	1-CH 3.5MM Audio Interface Line IN
USB	1 X USB2.0: Type A female JACK, 1xUSB2.0 Type A Female Jack
Communication	1 X RS-232 IN: 8-PIN Min Din, Max Distance: 30M
Certifications	FCC & CE Certified

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