



**HYBRID CLASS ROOM
FORE SCHOOL OF MANAGEMENT
NEW DELHI**



Client's Requirement

The client has a specific requirement of Hybrid Classroom for both offline and online classes.

Below are the points client wanted in the solution

1. No Cordless Collar/Lapel & Handheld Microphone.
 - Due to concerns about COVID-19 transmission, the client prefers a common microphone accessible to all students, as individual microphones cannot be shared or effectively sanitized.
 - With very good sound system without echo.
2. Camera – Auto Tracking for Faculty and PTZ camera for students.
3. Interactive Flat Panel (IFP/IDB) for Faculty do his writing and other content can be shared digitally. Plus two screens to display online students – One to be watched by Faculty and other to be watched by students present in the Lecture Hall.
4. Centralised Control – Instead switching On/Off individually they wanted a centralised controller to control all the instruments through a single tablet.

The Hybrid Classroom Solution

The Hybrid Classroom Solution provided by ATDSC is designed to facilitate effective teaching and learning in a COVID-19 environment, addressing concerns about sharing microphones and enabling seamless communication between in-person and online students. The solution includes the following components:

- **Unidirectional Microphones:** Two Uni-Directional microphones are installed near the Interactive Flat Panel (IFP) to capture the faculty's voice. These microphones are strategically placed to ensure clear audio capture while allowing the faculty to move freely within a 10-foot range either side.
- **Ceiling Omnidirectional Microphones:** Two powerful Omni-Directional ceiling microphones are employed to capture the voices of the students in the classroom. These microphones are designed to pick up audio from any corner, ensuring that all students' contributions are captured clearly. The audio from these microphones is also transmitted online, enabling remote students to participate in class discussions.
- **Tracking Camera:** A tracking camera is installed giving the faculty freedom to move and teach in natural manner. It track the faculty's movements within the classroom. This camera follows the faculty's position, ensuring that online students can see the faculty clearly during lectures or presentations. This feature enhances the remote learning experience by providing a more engaging and dynamic view of the faculty.

The Hybrid Classroom Solution

- **Student Camera:** Another camera is dedicated to capturing the students' activities in the classroom. This camera focuses on the students' perspective, allowing remote students to see their peers in the classroom. This visual representation helps foster a sense of inclusiveness and collaboration among both in-person and online students.
- **Screens:** There are two screens in the hybrid classroom setup. One screen is placed in front of the faculty, displaying the live video feed of online students. This screen allows the faculty to see the remote students and interact with them effectively. The second screen is positioned for the students in the classroom, displaying the video feed of the online students. This screen ensures that in-person students can see and engage with their online counterparts.
- **Controller with Tablet:** It controls all the instruments through a tablet control. Just by clicking a icon on the tablet all the instruments gets ON are its ready for the lecture to be delivered. Making it very easy for the faculty having single point control instead of juggling with various products.

Overall, the Hybrid Classroom Solution from ATDSC provides an integrated audio and visual system that enables effective communication and interaction between in-person and remote students. The combination of microphones, cameras, and screens ensures a seamless learning experience for all participants, regardless of their physical location.

Bills of Quantities (BOQ)

DESCRIPTION OF GOODS by ATDSC	QTY
Auto Tracking Camera (With 20X Optical Zoom)	1
PTZ Camera (20X Optical Zoom)	1
Unidirectional Microphone	2
Omnidirectional Microphone	2
Digital Signal Processor (DSP) 12 in 8 Out	1
Amplifier 200 Watt	1
Wall Mount Speakers – 30 Watt each	4
Interactive Flat Panel -86” with Floor Mount	1
TV – 65”	2
Ceiling Mount for Camera	1
Ceiling Mount for LED TV	1
1 HDMI In x4 Out HDMI Splitter	1

Bills of Quantities (BOQ)

CABLES (HDMI, USB, Microphone & Speaker)	LOT
Computer Rack	1
Floor Mount - 86"	1
Desktop PC (i7, 9TH GEN ,16GB RAM, 1TB HDD)	1
Controller for centralised control of instruments.	1
TABLET 10"	1
Handheld Cordless Microphone	1
Collar / Lapel Microphone	1