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INFOTAINMENT - THE HIDDEN GEM OF THE PRO AV INDUSTRY

Installation:
AV Media Enhances Hybrid Learning Experience at NTU Nanyang Business School

Commentary:
The Ingredients of Tech Innovation

Interview:
Generation AV India Looks to Empower Indian AV Market with a Strong Focus on Technology and Partnerships

E&E Equips SMU's New Building to be Hybrid Ready

The integrated AV technologies help enhance a seamless experience for students attending lectures remotely

FACTFILE

Project Name: SMU SOSS-CIS Building

Project Location: Singapore

Project Segment: Education

Systems Integrator: Electronics & Engineering Pte Ltd

AV Highlight: Integration of AV solutions at new building with emphasis on being hybrid ready

The Singapore Management University's (SMU) latest SOSS-CIS building was officially launched on 28 October 2022. The new seven-storey multi-use building caters to the university's ever-growing student population from the School of Social Sciences (SOSS) which was established in 2007 and College of Integrative Studies (CIS), which was newly launched in May 2022.

Electronics and Engineering Pte Ltd (E&E) was called upon to integrate the audio-visual solutions for the classrooms, seminar rooms, meeting rooms and the Psychology Lab in the building. In addition, the company also integrated digital signage displays at lift lobbies and the faculty lounge.

A typical classroom featuring projectors and ceiling microphones.

Hybrid Ready

The classrooms and seminar rooms are Zoom-ready to enable remote participants to be actively engaged with those physically present in the classrooms. Besides being equipped with Zoom software, the classrooms provide an integrated experience for presentations, wireless screen sharing and video conferencing.

Participants can connect their devices wirelessly via Kramer's VIA GO2 wireless presentation and collaborate within the classrooms. IOS, Android, Chromebook, PC and Mac users can connect wirelessly and instantly to the presentation display. VIA GO2 also includes iOS mirroring via Airplay, Windows & Android mirroring via Miracast, and Chromebook mirroring. The super-compact (7x7cm) size of VIA GO² makes it easy and inconspicuous to install. Furthermore, it includes industry–leading 1024–bit encryption for safe use on the internal network.

PTZ cameras, projectors, LCDs, audio speakers and Shure MXA 910 ceiling array microphones are also installed within the classrooms. The Shure ceiling microphones incorporate Voice Lift technology, thus ensuring that both near and far-seated participants have the same listening experience. These solutions are integrated within the classrooms and seminar rooms to cater to in-room lectures and the hybrid experience, where remote participants can be visually present via the LCD or projection screens and be heard through the loudspeakers.

Extron's digital media modular matrix switcher, HDBaseT transmitter, HDMI distribution amplifier, Mediaport USB scaling bridge, H.263 streaming media processor and recorder provide the backbone to the AV distribution in each of the classroom and seminar rooms.
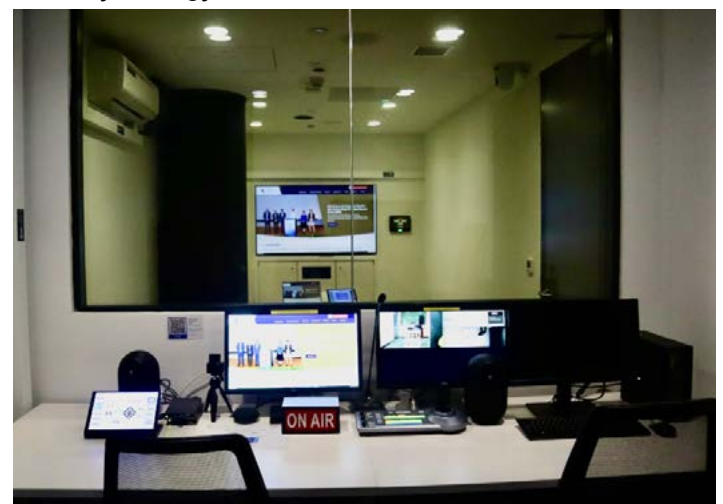
A typical front of classroom with the control panel which is easily accessible by the instructor.

Controls Made Easy

A Crestron 10-inch wall-mounted touch panel is installed in each classroom and seminar room. E&E made efforts to ensure that the GUI closely resembles what is being used in other SMU buildings, so as not to overwhelm the instructors. "As this is a new building, we had to ensure that academic instructors still have familiarity with the controls. However, I would say that the GUI is more refined as we improved on it. I would say it is more user-friendly," said Gary Goh, CEO, Electronics & Engineering Pte Ltd (E&E).

If for some reason, the instructor has any technical issues, a SMART 10-inch display from Nexlabs serves as an intercom to connect him/her to the facilities or IT support team. The SMART display even has a Classroom Equipment Guide to help the instructor.

The Psychology Lab

The control room with a one way mirror looking into the interaction room in the lab.

The Psychology Lab is used by Faculty and students to conduct experiments, observations, and studies for research purposes. The Control room and Interaction room in the Lab is partitioned by one-way mirror to

allow experiments and other sessions to take place in privacy and with professionalism. The Lab is designed with an AV system to support real-time monitoring and video recording of the activities and behavioural responses in the Interaction room. E&E has integrated Voice Assistant Technology, using Google Home, to use AI to recognize and respond to voice commands to control the AV equipment in the Lab, a first in the SMU campus.

Digital Signage

E&E installed LG 55" LCDs in lift lobbies and the faculty lounge to serve as digital signages. The signages keep the SMU community and visitors informed of the schools' latest activities and announcements, and can be switched to broadcast free-to-air TV channels from the local terrestrial TV broadcaster at a single touch. Scala digital signage media player and digital TV set-top box are integrated with the LCD displays to perform the necessary functions.

Objectives Achieved

The new building AV set-up allows the university to prepare for future situations where hybrid learning may be implemented. "Beyond that, we also needed to be mindful that the AV solutions and operations installed were consistent with the other buildings to give

instructors the confidence to operate them," continued Gary Goh.

"Recording of classes, easy retrieval of the recordings, and enabling students to easily connect with the displays regardless of the device they are using were all key objectives that we had to meet. In addition, enhancing the online experience for students to make them feel they are in the classroom was important. Being able to get remote students to be visually present and for remote students to see their course mates and the instructor, plus being able to hear and be heard, helps create the experience of being involved.

"The main aim of the integrated AV solution is to enhance the learning experience for the students, for both face-to-face and online classes. As for the instructors, we are pleased that the system supports them with ease of use and I believe that we have achieved that for SMU's new building," shared Muhammad Khairi, a Technology Solution Engineer with SMU.

Electronics and Engineering

Singapore Management University

The digital signage displays.