AVW·TELAV
Audio Visual Solutions

U of T's Advanced Imaging and Education Centre

Toronto General Hospital: Medical Matters

The University of Toronto Advanced Imaging and Education Centre (AIEC) is dedicated to providing the highest standard of quality education in advanced imaging techniques. The AIEC is located in the heart of the Joint Department of Medical Imaging of Toronto General Hospital (TGH), one of three hospitals in the University Health Network.

TGH is leading the way in cardiac care, organ transplants and the treatment of complex patient needs and, as such, the AIEC provides students access to a busy medical imaging department with the latest equipment and the most experienced imagers. When students fly in from all over the world for advanced imaging training, they expect and require state of the art visual equipment to view high resolution 3D MRI and CT scans. AVW-TELAV offered the AIEC a solution for its Radiology Training Room that included video expansion capabilities with HD displays for optimal clarity.

The Diagnosis

• The AIEC was designed to create an intimate learning environment, consisting of 13 individual workstations, each installed with its own computer. To provide vivid and clear images at the front of the room, AVW-TELAV installed a Panasonic 1080p HD data projector. With a widescreen image format ensuring the capacity to display legacy and current PC and laptop formats, the projector provides students highly-detailed content viewing and analysis of the training content on a 113" diagonal, high contrast screen. AVW-TELAV also mounted and connected two HD 42" Toshiba flat panel displays on either side of the room to offer better visibility to the students at the rear of the room.

• For distance learning applications, lectures in the AIEC training room can be broadcast elsewhere through videoconferencing technology. AVW-TELAV installed a Tandberg HD videoconferencing system. Through a variety of screen configurations, the instructor can display multiple video streams of conference participants and data from any of the PC workstations in the room. Alternately, if required, the system could be used for a remote presenter to teach the students within the room.

• At the heart of the system is a Crestron central control unit, with a 10" touch screen panel, that offers users intuitive functionality of the electronic equipment in the room. By selecting programmed activities, the instructor can begin training sessions at the touch of a button, commanding multiple processes to happen simultaneously. In fact, the control system grants the instructor full management of the projector, audio volume, HD videoconferencing system, and source selection of the instructor's own computer—or any of the 12 students' PC workstations—to display on the screens.

• Additionally, through the addition of a Crestron ILUX lighting dimming system, the users in the room can adjust the lighting to suit any activity taking place during the lecture. For example, the lighting can be optimized for class presentations or concentrated specifically for a videoconferencing environment. These lighting configurations are triggered as the users select the type of presentation they intend to do. The functions can also be easily adjusted with override controls on the touch panel. • Ensuring maximum intelligibility for students of local and remote (videoconference) presenters, the AIEC also features a high performance audio system. In-ceiling speakers were precisely positioned for optimal sound dispersion, allowing audio signals from the PC workstations, the videoconference system, and two wireless lavaliere microphones for presenters to be amplified throughout the room.

The Doctor's Opinion

Said Dr. Narinder Paul, an onsite instructor, "All of these advanced AV features are integral to the intense and interactive learning process experienced in the AIEC."

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