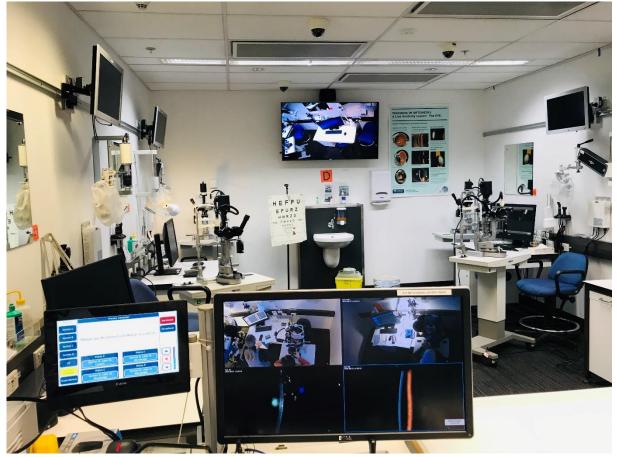# Hanwha Techwin's Wisenet cameras bring AV teaching system to a new level for the Optometry Laboratory at the University of Auckland

Global security company Hanwha Techwin has successfully installed its Wisenet video surveillance system with the University Auckland Optometry Laboratory.

Challenge

The University of Auckland IT and AV teams required a multi-level and complex video feed integration to their bespoke AV lecture system. This special project required cameras, encoders, decoders and software to construct a video transmission and recording system connecting its 16 microscopes medical cameras and matching assessment desk computers to the master feed of the classroom.

Students needed microscope video streams to submit their assessments, while additional interview cameras were used for critics and to assess for their consulting skills.

WISENET

On the other hand, tutors and professors used the system to share lecture material, exhibit student cases, collect assignments and also for examination purposes.

Solution

Using CCTV technology from the security industry – Wisenet NVR had become the product of choice to use in the new teaching system.

Equipment and software used in the design included a 64CH 12MP NVR PRN-4011, 18 XND-8080R dome cameras, five decoders SPD-150, and 18 Wisenet SmartViewer software for each student assessment desktop PC.

Additionally, SECOM Guardall NZ worked with Hanwha Techwin in Korea to rewrite their HDMI API to integrate with the University's own in-house Lecture system software.

Result

The completed teaching system complied with the university's technical requirements of high video quality with 16:9 aspect ratio and six-month video retention period with Raid 5.

Feedback from the end-users were positive. Students found the learning experience was lively and engaging due to the allowed real-time engagement between peers and lecturers. Tutors and professors were able to evaluate their students accurately during class sessions and provide timely advice to steer individual students in the right direction. Additionally, the recorded video clips could be further developed for incorporation in teaching material.

Adina Giurgiu (Laboratory Manager I School of Optometry and Vision Science I Faculty of Medical and Health Sciences I The University of Auckland) said, "The new AV system designed by SECOM with Wisenet cameras, is used in teaching across all levels of our program allowing recording, review, distribution of images and videos obtained by students during their training, assessments on ocular health examinations using the slit lamp bio microscope." She highlighted features by mentioning, "The system allows to submit examinations in a secure manner also to broadcast images and videos from one particular examination station to video monitors placed around main areas of the teaching suite for more efficient demonstration of examination techniques and observation of both healthy and abnormal findings to the whole class."

WISENET

She also emphasized that "The new teaching AV system is a state-of-the-art teaching tool unique in the world and reflects our aspirations to continually position the School of Optometry and Vision Sciences, University of Auckland as a highly ranked first choice in Australasia."