

QUEENSTOWN SECONDARY SCHOOL – BACK TO SCHOOL

Bar the occasional reunion, most academic institutions bid farewell to their students having provided them with knowledge and skills that have set them up for their journey through life. It's rare that they ever return in later life to repay that debt of gratitude. So when Electronics & Engineering's managing director Ronald Goh was invited to provide Queenstown Secondary School (QSS) with an audio consultation for the school hall in late 2016, he was allowed to balance the books and 'give something back'.

Initially founded under British rule, Queenstown Secondary Technical School (QSTS) for boys had only been in existence for just six years when a young Mr Goh graduated. 'I still hold very fond memories, as this was where I started my engineering education gaining practical metal working experiences which is still relevant to me to this day,' reminisces Mr Goh. 'We bought the metal workshop – Eng Kong Engineering Works – more than 45 years ago where we still design and build our own metal brackets for the screen frames, curtain tracks and speakers in A/V installations today. I acknowledge huge gratitude to QSTS in starting me on the right path of this technical journey.'

Located on Strathmore Avenue, the school has grown in size over the years. As part of this growth, the main school hall was built in 1997 following a period of renovations and upgrades. So when Mr Goh was invited by the current principal Madam Rasidah bte Rahim to review the audio system in the school hall prior to the 60th anniversary celebrations, he had no hesitation in accepting the request.

'When I visited the school hall, I was in awe of its excellent acoustics designed by the architect, Professor Ng from the NUS Architectural division,' explains Mr Goh. 'For a school hall, the acoustics are incredible as the entire ceiling has been installed with perforated aluminium panel strips together with a complete layer of fibre glass wool below the roofing panels for heat isolation. Furthermore, the rear wall is completely covered by square perforated panels filled with 50mm thick rock wool. In my opinion, the acoustics of the 35m x 22m room are concert hall quality. Therefore, nothing short of a concert quality sound system would do justice to the room's acoustics.'

Having shared his expertise and advice with Ms Rasidah, Mr Goh learnt that there was insufficient budget for such an upgrade. However, he overcame any initial disappointment by donating his services to design, supply and install the audio system for the benefits of the students. Humbled by such an offer, Ms Rasidah accepted and the works were conducted almost immediately in November 2016.

Three EAW MK2396i 12-inch speakers have been installed into the proscenium in an L-C-R configuration, whilst the lower frequencies have been extended down to 28Hz with the addition of two JBL ASH6118 18-

inch horn-loaded subwoofers. Ensuring even coverage towards the rear of the hall, another three MK2396i cabinets have been suspended in the same configuration from the 10m high ceiling, whilst seven EAW SMS4 cabinets have been integrated into the rear 3m high ceiling under the overhead gallery area.

Three Crown MA3600VZ plus single MA1200 and MA5000i amplifiers dedicate their power to the FOH, under gallery 4-inch speakers and two subwoofers. Performers are assisted on stage by two JBL Control 29AV monitors that are powered by a single MA2400AV amp. DSP settings such as delays and crossover have been added courtesy of a Symetrix Radius 12x8 EX processor outfitted with an Edge 4-channel analogue card.

Following an official handing over of the sound system service on 27 February, Mr Goh was honoured with a plaque on the frontal wall of the hall. 'Already, the students have benefitted greatly with such a good sound system – they can now appreciate good quality audio,' confirms Ms Rasidah. 'We previously operated the system for reinforcing speech during assemblies, events and ceremonies. However, we can now host high-quality musical and live events on stage, which in turn has really inspired the students and is seeing the expansion of our events programme. In addition, the concentration levels of the audience located in the rear of the hall has improved markedly owing to enhanced intelligibility.'

Humbled by the ceremony, Mr Goh comments: 'I am indeed happy that my small gesture has brought so much joy to so many people. This is in line with one of my philosophies in life whereby it is better to seek joy in giving rather than in receiving.'