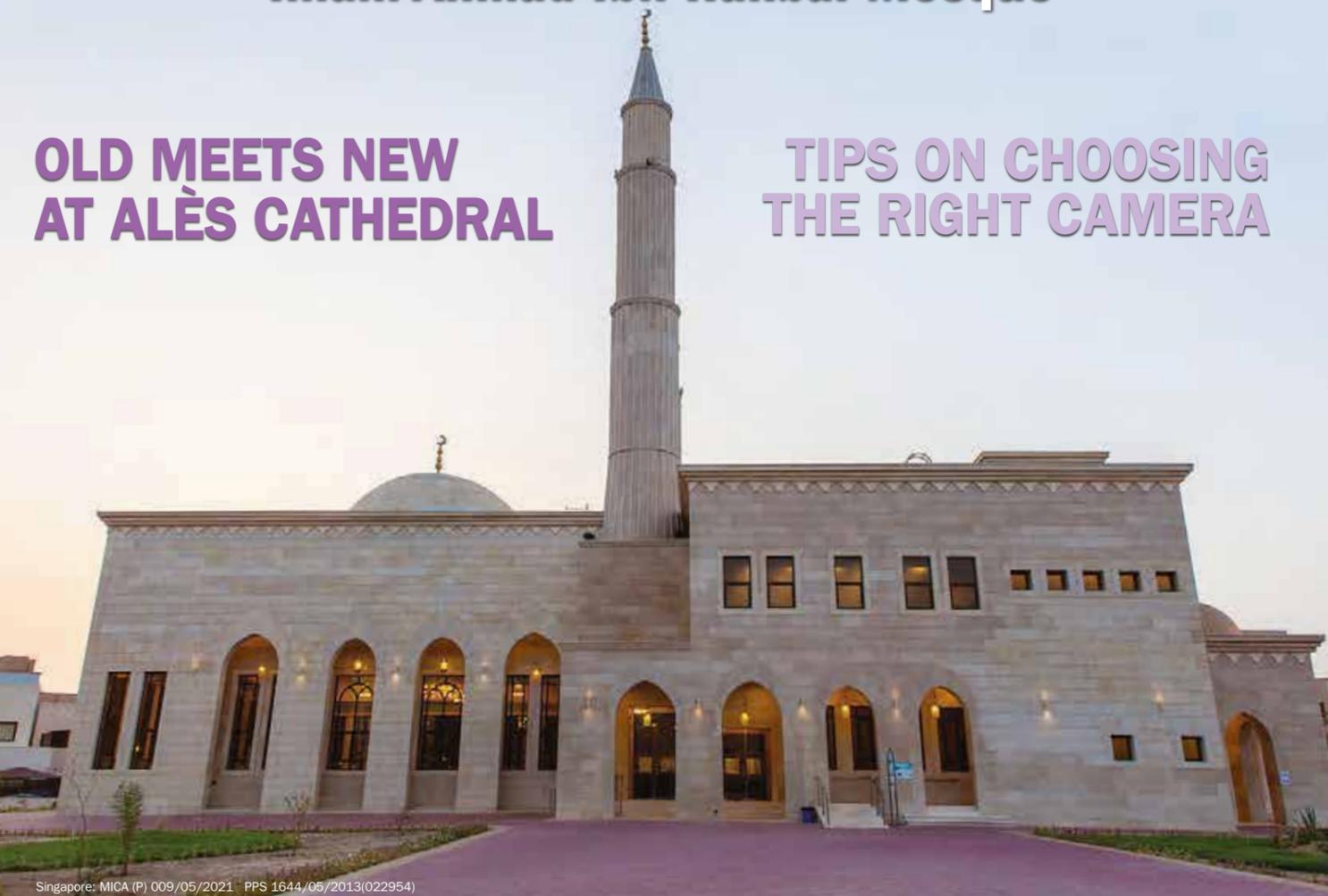


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PROJECTS



Reverend Dr Deuk-hwan Kang



Only four Vegas 4s were required for the sanctuary

Faith restored

Seoul's Daerim Church has turned to Outline for a new sound reinforcement system in its main worship room

AS PART OF THE KOREAN

Methodist Church's 50th anniversary celebrations, Daerim Church has unveiled a new Outline sound reinforcement system installed by the manufacturer's long-standing Seoul-headquartered Korean distributor, Heksiba Multimedia Co Ltd. Daerim Church began with 17 members and Pastor Lee Byeong-seol in Daerim-dong, the former outskirts of Seoul.

The HOW has steadily grown over the past 50 years and the chapel has been rebuilt three times. Growth has been especially noticeable since 1986 – the current chapel was constructed in 2006 and can hold 1,500 parishioners.

The previous point source speakers have been replaced with a line array setup, chosen to improve sound pressure and clarity in the sanctuary's oval layout, which is 36m long, only 29m wide and 11m high. There were many problems with the previous sound system. There was a lot of echo in the chapel and even more in the mezzanine; overall, the biggest problem was a lack of clean sound.

The main system comprises two hangs of 12 Outline Mantas 28 elements which, despite their relatively small format, are high-performance line array units with a radial angle of 120° and a maximum output of 139dB SPL. A pair of Outline DBS 18-2 subwoofers are flown behind each of the arrays.



"As well as the main system, we also installed Outline's Vegas 24 enclosures, used as frontfill speakers and under-balcony delays to optimise coverage of the area of the congregation furthest from the altar," explains SungHwan Oh, Heksiba Multimedia's CEO. "In both cases, the Vegas 24 speakers were specified for their wide coverage pattern, ensuring maximum coverage from a small enclosure."

The latter aspect was of key importance – as well as crystal-clear sound transmission throughout the Great Worship Room, a low visual impact was also a priority right from the drawing board stage, so the setup had to feature medium-sized speakers.

Outline's new Vegas 4 (single 4-inch) was deployed for choir monitoring – given its compact dimensions of 120mm x 120mm, just four of these

micro-speakers were sufficient to guarantee even coverage for all the choristers. Floor/stage monitoring duties were carried out by four Vegas 12 CXs and two Vegas 15 CXs, positioned according to the ceremonies and events held in the church. Currently, Daerim Church holds various types of events, including meetings and performances. Worship consists of sermons, classical Christian music combined with orchestra and soloists, and modern Christian music combined with electronic instruments and 10 vocalists.

As well as four of Outline's multifunctional iP24 DSP loudspeaker management systems, the church features 13 of the manufacturer's power amplifiers: eight T-Five, two M5000-4, two M2800-4 and an X4.

The Heksiba team used Outline's OpenArray 3D simulation software. Oh

adds: "We mainly used Direct SPL, as it is very efficient for previewing and modifying in advance variables that may occur in real life. Direct sound pressure distribution indicates the direct sound energy emitted by the speaker set in the simulation without going through reflections of walls or ceilings. This information is the basis for composite sound and clarity analysis, of fundamental importance when designing sound systems for venues such as Daerim Church."

The church's pastor, Reverend Dr Deuk-hwan Kang, enthused: "First of all, I would like to thank Heksiba Multimedia's CEO and staff for suggesting the top-class products from Outline and working hard to ensure the best sound. During a worship service, it is particularly important that the preacher's voice reaches the congregation in a clear manner and, after the Outline main and delay speakers were installed, I was very pleased that the message was delivered well to each congregation and everyone was satisfied with their performance. We invited a world-famous saxophone player to play a concert in our church and were overwhelmed with the speakers' magnificent sound."

www.daerimchurch.com
www.heksiba.kr
www.outline.it