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**\*\*\*FOR IMMEDIATE RELEASE\*\*\***

Press Release

**Genelec enables scientific breakthrough at Japan’s Nagaoka University of Technology**

**Nagaoka, Japan, June 2024…** Japan’s [Nagaoka University of Technology](https://www.nagaokaut.ac.jp/e/), fondly known as ‘Nagaoka Tech,’ is at the forefront of auditory research. At the heart of Nagaoka Tech lies the Acoustic and Vibration Engineering Centre; a research hub dedicated to advancing the understanding of sound and its myriad applications – and where Genelec [Smart Active Monitors](https://www.genelec.com/sam-studio-monitors-subwoofers) play a key role.

Established in 1984, the Centre houses a comprehensive suite of resources, including two reverberation chambers, an electromechanical acoustics laboratory and a psychological auditory laboratory. Among its features, the large anechoic chamber stands as the flagship of the Centre, designed to minimise sound reflections and provide an ideal environment for conducting precise acoustic experiments.

“We’re dedicated to creating immersive sound experiences using a minimal number of loudspeakers,” explains Professor Yasunori Sugita, Deputy Director of the Centre. “Understanding human auditory perception is paramount, driving us to explore technologies such as stereophonic sound through bone conduction – to aid visually impaired navigation and wheelchair control – through to sound localisation and recognition. Our students engage in diverse projects, from out-of-head sound image localisation to stereo acoustics, aiming to unravel the mysteries of sound perception and tackle real-world challenges.”

Marking a significant upgrade for the university, a 41.2 channel 3D loudspeaker system was recently installed at the Acoustic and Vibration Engineering Centre. The system serves as the cornerstone for various research endeavours, spanning sound field reproduction to the remote control of robots using virtual and augmented reality.

Professor Sugita intends to use this technology to create immersive audio environments mirroring real-world scenarios: “Although it’s now possible to reproduce visual information three-dimensionally using head-mounted displays, it’s not yet been possible to reproduce sound, which is also crucial for remote control. We wanted to analyse the sound of the space in which a person is present, and then reproduce it in a different space.

“I’ve been researching stereophonic sound for some time, and when it comes to measuring Head Related Transfer Functions, I need loudspeakers with completely flat characteristics that I can then easily tweak if needed. This is why we introduced a multi-channel 3D loudspeaker system that could reproduce the sound field more accurately, and this ultimately led us to Genelec.”

Comprising Genelec’s [8320](https://www.genelec.com/8320a) Smart Active Monitors and [7380](https://www.genelec.com/7380a) Subwoofers, the system is designed to meet the rigorous demands of the university’s cutting-edge auditory research. “Genelec monitors not only meet our criteria but also offer the flexibility and ease of calibration essential for our research needs,” states Professor Sugita. “Their scalability and stability as well as their compatibility with RME audio interfaces make them ideal for the precision needed in our research.”

Elevating the system’s capabilities is Genelec’s [GLM](https://www.genelec.com/glm) loudspeaker manager software, facilitating precise control of individual loudspeakers. “GLM simplifies the calibration process, ensuring consistent performance across all channels,” notes Professor Sugita. “This level of control is indispensable for our research, where accuracy and reliability are paramount.”

User feedback echoes the sentiments of Professor Sugita, with many expressing admiration for the fidelity and immersive quality of sound reproduction. “Genelec monitors have surpassed our expectations. Their seamless integration and intuitive operation make them indispensable for this type of research.”

Looking ahead, Professor Sugita plans to deploy the immersive system for in-depth research initiatives such as ‘Audio Spot’ – which is aimed at delivering tailored sound experiences within shared spaces. By harnessing sound localisation and personalised audio delivery, this initiative has the potential to revolutionise industries spanning automotive to entertainment, offering exceptional levels of customisation and immersion. “I know that our students will make good use of this Genelec monitoring system for their auditory experiments, and I look forward to seeing how it will contribute to society at large.”

For more information please visit [www.genelec.com](http://www.genelec.com)

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***About Genelec***

*Since the founding of Genelec in 1978, professional audio monitoring has been at the core of the business. An unrivalled commitment to research and development has resulted in a number of industry firsts and established Genelec as the industry leader in active monitors. 45 years later Genelec monitoring products remain true to the original philosophy, offering reliability, neutral sound reproduction regardless of size, as well as the ability to adapt to the acoustic conditions of the listening environment. Genelec customers receive paramount support in the field, from acoustical advice and calibration services to technical service and long product life span. Buying a Genelec product is a secure long-term investment in outstanding and reliable audio monitoring.*

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