

"A Venue for Creative Ideas" GIST's Department of Materials Science and Engineering hosts nationwide 19th Science and Technology Competition for University Students

- 35 university teams from across the country participated, with eight teams, including GIST and Korea University, winning awards
- Developing creative ideas to enhance research capacity and creativity among science and engineering students



▲ Participants and winners pose for a group photo after the conclusion of the 19th Materials Science and Engineering Competition held at GIST.

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that the Department of Materials Science and Engineering (Dean Joo-Hyoung Lee) hosted the "19th GIST Materials Science and Engineering Competition Finals and Awards Ceremony."

Hosted by the Department of Materials Science and Engineering, this competition provides undergraduate students interested in materials science and engineering with an opportunity to propose creative ideas. It has been held annually since 2007 to enhance the research capabilities and creativity of undergraduate science and engineering students.

This year, a total of 35 teams from across the country applied from Monday, August 4 to Friday, September 12. After a document screening, a total of eight teams advanced to the finals: four from GIST, two from Korea University, one from Konkuk University, and one from Korea Aerospace University.

The finals took place on Friday, September 26th, from 11:00 AM to 5:00 PM at GIST's Oryong Hall.

Eight teams were awarded prizes based on a comprehensive evaluation of their research ideas' creativity, feasibility, presentation skills, and Q&A style.

▲ The Grand Prize (1 million won) went to Seoha Kim of the Department of Materials Science and Engineering at GIST and Sojin Kim of the Department of Life Sciences. Their proposal was titled "An OECT-based closed-loop drug delivery platform for implementing tumor microenvironment (TME)-sensitive ICI-chemo logic." ▲ The Excellence Award (500,000 won) went to Hyunju Ahn and Kyungmin Nam of the Department of Materials Science and Engineering at GIST for their presentation on "A non-invasive DNA hydrogel wound closure patch that seals with light." ▲ The Encouragement Award (300,000 won) went to Hyunseo Ryu and Dayoon Lee of the Department of Materials Science and Engineering at Korea University for their presentation on "Development of high-conductivity and high-biocompatibility electrode materials through HA-3-alkoxythiophene bonds," and Jinyoung Lee and Yonghoon Jeong of the Department of Materials Science and Engineering at Korea Aerospace University for their presentation on "DLTS (Deep Level Transient Spectroscopy)."

The Special Prize (KRW 200,000) went to ▲ Shiwon Park and Suyeon Lee of the Department of Materials Science and Engineering at Korea University for their thesis titled 'CO₂RR System Using Swing-Arm Multienzyme Reaction: High Value-Added HER', ▲ Minsu Park of the Department of Materials Science and Engineering at GIST for their thesis titled 'Adsorption-Mediated Anion Concentration Strategy for Formation of Inorganic-Rich SEI Layer in Aqueous Zinc Metal Batteries', ▲ Seongbin Cho of the Department of Chemical Engineering at Konkuk University for their thesis titled 'Exploration of the Possibility of Forming Low-Temperature Ferroelectric Thin Films Using Laser Annealing', and ▲ Yura Jeong of the Department of Electrical, Electronic and Computer Engineering and Ham Yukyung of the Department of Materials Science and Engineering at GIST for their thesis titled 'Oxide Memristor Based on Two-Dimensional Materials Introducing a Porous Structure'.

Students Seo-ha Kim and So-jin Kim, who received the grand prize, said, "We are deeply honored that our attempt to explore the potential of next-generation cancer treatments through the convergence of materials engineering and life sciences has been highly recognized." They added, "We will continue to grow as researchers who can make a substantial contribution to society through convergent research."

Dean Joo-Hyoung Lee stated, "Student interest and participation in the field of materials engineering is growing every year. This competition is highly significant in that it contributes to nurturing future leaders through research that combines creativity and practicality. We hope to continue producing outstanding talent in the field of materials engineering."