

GIST-MIT Joint Research Symposium Held... summarizing 5 years of joint AI convergence research results

- Held in a hybrid format, both on-site and online, at GIST Oryong Hall on November 12th and 13th... Discussion on the five-year research achievements of the "GIST-MIT AI Convergence International Collaboration Project" and plans for expanding joint research
- Sharing the latest AI+X convergence research results with MIT CSAIL researchers... Presentation of six projects, including ▲ robots, ▲ human-centered systems, ▲ energy, ▲ generative AI, ▲ optical sensors, and ▲ new microbiome drugs



▲ A scene from the "2025 GIST-MIT Joint Research Symposium," held in Room 101 of GIST's Oryong Hall on Wednesday, November 12th. Researchers from GIST and MIT shared their latest achievements in AI convergence research and discussed international collaborative research opportunities.

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that it will host the "2025 GIST-MIT Joint Research Symposium" in collaboration with the Massachusetts Institute of Technology (MIT) Computer Science and Artificial Intelligence Laboratory (CSAIL) from Wednesday, November 12th to Thursday, November 13th.

The symposium, held both in person and online in Room 101 of GIST's Oryong Hall, featured MIT researchers participating via video conference. Researchers from both universities will share their latest achievements in AI convergence research and discuss international collaborative research opportunities.

This symposium summarizes the five-year research achievements of the "GIST-MIT Artificial Intelligence (AI) Convergence International Collaboration Project," which began in 2021. It aims to expand international collaborative research based on AI convergence research and strengthen the global network. The project aims to secure core AI technologies and expand research into diverse fields (AI+X), including robotics, life sciences, and energy.

From 2021 to 2025, researchers at GIST and MIT have combined their diverse fields of expertise and research cultures to conduct six joint research projects, proposing diverse convergence research models based on AI technology. They also shared their research findings through a joint symposium in 2023.

The symposium began with opening remarks by GIST President Lim Ki-cheol and MIT CSAIL Director Daniela Rus. On Wednesday, November 12th, three projects in the fields of robotics, human-centered systems, and energy were presented.

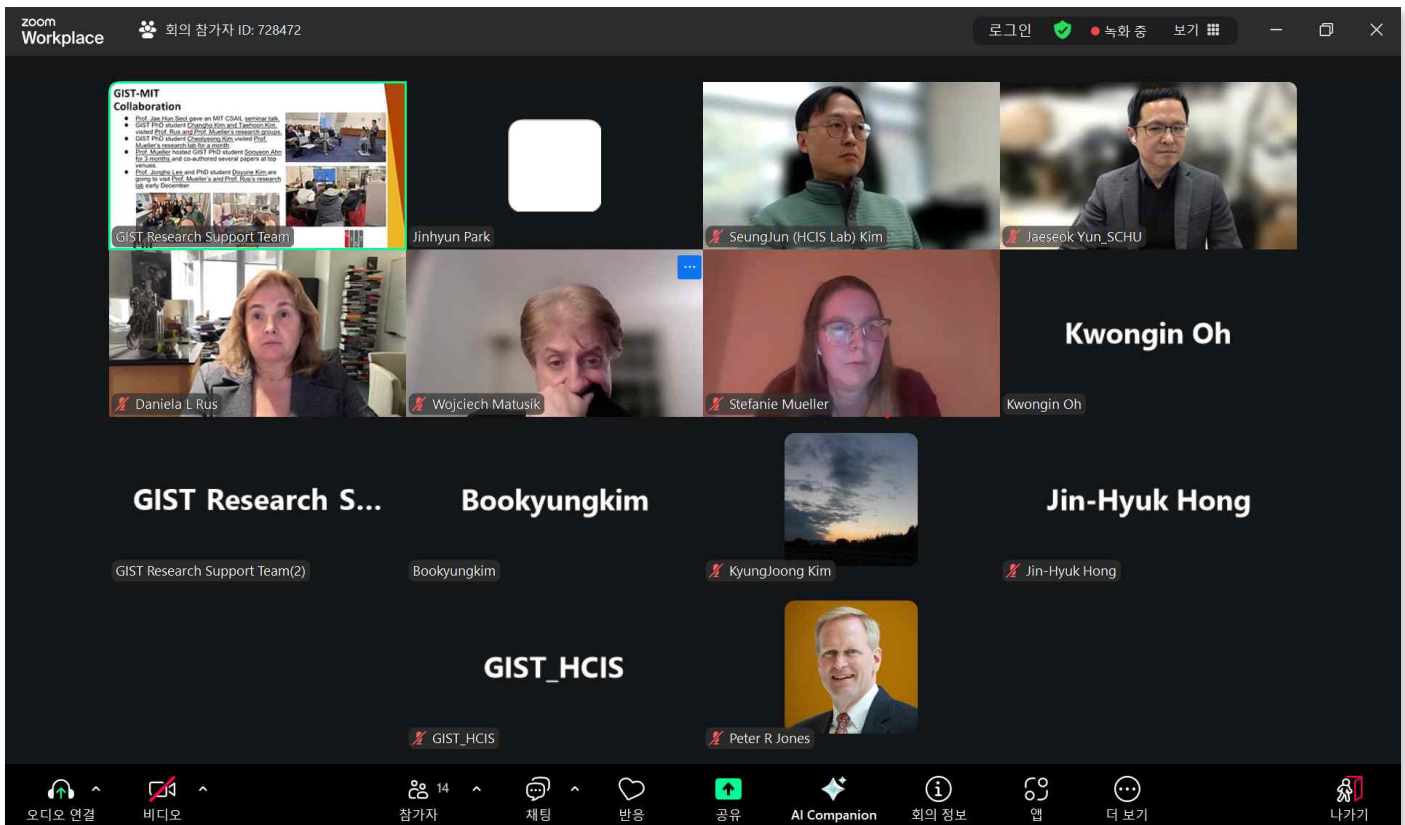


▲ GIST President Kichul Lim and MIT CSAIL Director Daniela Rus deliver opening remarks at the "2025 GIST-MIT Joint Research Symposium," held in Room 101 of GIST's Oryong Hall on Wednesday, November 12th.

The MIT and GIST joint research team showcased AI convergence research achievements with potential for practical applications, including: ▲ technology that enables robots to precisely perceive their surroundings and objects through AI-based robot skins; ▲ design of human-centered physical systems incorporating human-computer interaction (HCI); and ▲ design of catalysts and electrodes for high-performance hydrogen production.

On the second day, Thursday, November 13th, three projects will be presented that demonstrate the scalability of AI convergence technologies, including generative AI, optical sensors, and microbiome-based new drugs.

The joint research team from MIT and GIST will present AI convergence research results with potential future applications, including: ▲ technology that combines generative AI with contrastive learning to enhance multimodal data representation learning performance; ▲ precision vision technology utilizing AI-based compound eyes (ACE-AI) sensors that mimic the visual structure of insects, enabling applications in industrial fields such as autonomous driving and robot vision; and ▲ technology that utilizes AI to analyze the interaction between the human body and the microbiome, leading to early disease prediction and the discovery of new drug candidates.



▲ Researchers from GIST and MIT are participating online via Zoom for the "2025 GIST-MIT Joint Research Symposium."

In his opening remarks, President Kichul Lim expressed his gratitude to the MIT researchers, saying, "I hope this symposium will serve as a starting point for new collaborations where ideas can be freely exchanged and diverse fields and cultures can converge."

He also emphasized, "GIST and MIT share the common goal of creating 'AI for people.' As AI expands into the physical world—robots, vehicles, factories, hospitals, and homes—we must jointly consider safety, trust, and human values."

Based on the AI convergence technologies secured through research collaborations with MIT and the symposium, GIST plans to expand domestic and international industry-academia-research collaborations and contribute to strengthening Korea's AI competitiveness.

Furthermore, GIST plans to deepen its collaboration with MIT to strengthen its core AI technology research capabilities and actively pursue the discovery of convergent AI+X applications, international joint research, and talent exchange.