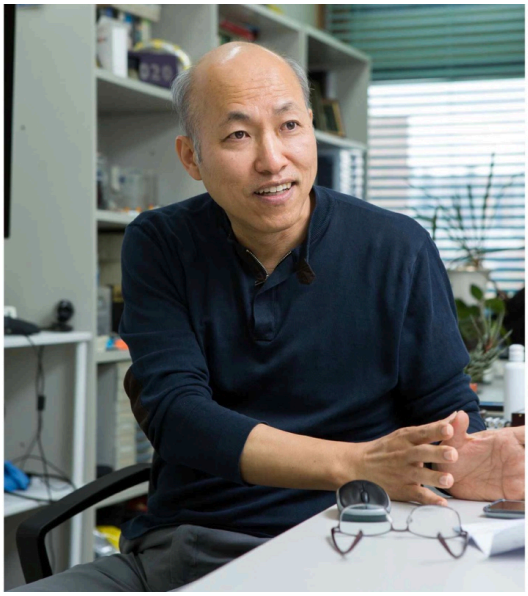
“Building the ‘Heart’ of South Korea’s science, technology, and AI research”: GIST selected as lead institution for 75 billion won university science, technology, and ai research infrastructure construction project

- Selected for the Ministry of Science and ICT’s ‘AI-based University Science and Technology Innovation Project’… 75 billion won to be invested over 8 years from 2026 to 2034

- Creation of a national AI research platform jointly utilized by universities and research institutions, based on HPC-AI capabilities rooted in supercomputing centers



▲ Dean Jong-Won Kim of the GIST AI College (Director of the Supercomputing Center).

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that a project led by Dean Jongwon Kim of the AI College (Director of the Supercomputing Center) as the principal investigator has been finally selected in the ‘Establishment of a Central Hub-type Infrastructure for AI-based University Science and Technology Innovation to Integrate AI and Science’ category of the Ministry of Science and ICT and the National Research Foundation of Korea’s “AI-based University Science and Technology Innovation Project.”

With this selection, GIST will receive a total of 75 billion won in government funding over eight years, from 2026 to 2034, to build and operate an AI research infrastructure for joint university use. This project aims to foster a university-centered AI research

ecosystem to solve difficult problems in the science and technology field using artificial intelligence (AI) and to enhance future research competitiveness.

Through this project, GIST plans to establish a core research foundation to support the era of 'AI4S&T (AI for Science and Technology)'—science and technology research innovation utilizing AI—and provide a university-wide infrastructure that enables researchers at domestic universities to conduct AI-based science and technology research.

▲ ***Conceptual diagram of the national AI research infrastructure being built for AI-based science and technology research innovation (AI4S&T). GIST is constructing the K-ImagineRI platform, which integrates AI computing resources, data, and research workflows to serve as a central hub for building an ecosystem to solve complex scientific challenges based on AI.***

Recently, AI has established itself as a core tool in science and technology research, including drug discovery, new material exploration, semiconductor design, and climate forecasting.

Major countries such as the United States, Europe, and Japan are pursuing the convergence of AI and science and technology research as a national strategy and are building research infrastructure accordingly. In contrast, in Korea, AI computing resources, data, and research environments are fragmented across various institutions, resulting in a lack of a national-level research foundation that researchers can utilize jointly.

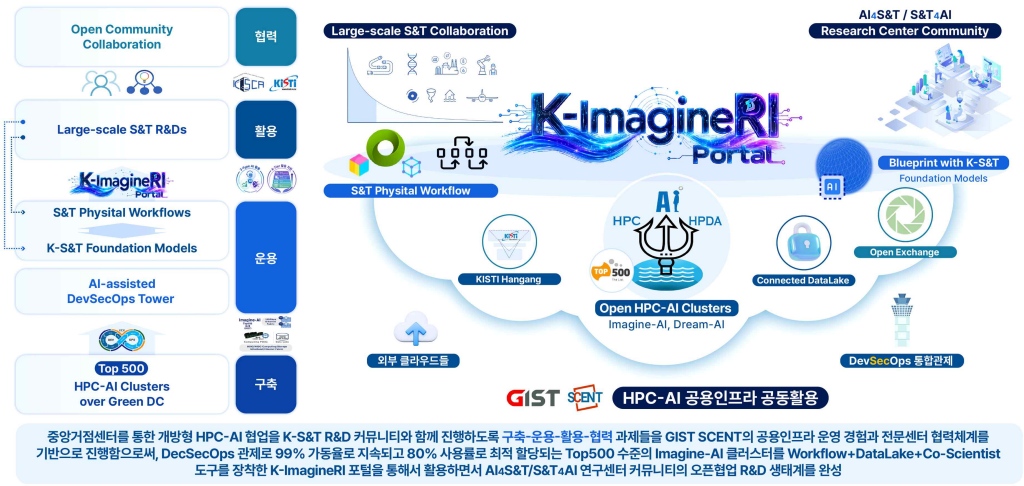
In response to global AI competition, the government is promoting the 'K-Moonshot*' initiative. Through this project, the government plans to establish a national research infrastructure for shared use based on AI and foster a sustainable, university-centered science and technology and AI convergence research ecosystem.

> ** K-Moonshot: Refers to a Korean-style mega-national innovation project in which the government pursues innovative and challenging research and development (R&D), even at the risk of failure, to solve the challenges of future society and secure world-class technological competitiveness.*

To this end, GIST plans to build a shared infrastructure (HPC-AI) that combines High Performance Computing (HPC) and AI to meet the demand for science and technology research, and to operate an integrated research platform called 'K-ImagineRI (Korea-Imagine Research Infrastructure)' to enable researchers to easily utilize it.

'K-ImagineRI' is an integrated research platform that supports researchers in applying for and receiving necessary computing resources regardless of their affiliation or region, as well as enabling them to securely share research data and AI models and conduct collaborative research.

In particular, by integrating functions such as ultra-high-performance GPU-based AI research infrastructure, sharing of research data and AI models, support for research workflows, and support for collaborative research between research centers into a single platform, it supports researchers in carrying out the entire R&D process—from research planning and data analysis to AI model development, utilization, and sharing of results—within one platform.



▲ ***A national AI research cooperation system centered around GIST, connecting universities, research institutions, and AI research centers nationwide. Through the K-ImagineRI platform, researchers can conduct large-scale convergence research by jointly utilizing AI computing resources, data, and AI models.***

K-ImagineRI Through its Supercomputing Center (SCENT), GIST has built and operated the 'HPC-AI Shared Infrastructure,' which combines high performance computing (HPC) and AI, as well as the national shared AI supercomputing platform 'Dream-AI.' This has allowed GIST to accumulate cloud-based HPC-AI technology and extensive experience in large-scale research support.

Based on these capabilities, GIST plans to stably establish and operate the central hub infrastructure for this project and oversee nationwide shared services.

Furthermore, the university intends to gradually expand AI computing infrastructure and establish an integrated control and support system for stable operation and efficient resource allocation. It also plans to expand linkages and cooperation with future field-specific research hubs.

This project is significant in that it goes beyond merely expanding GPU equipment to establish a comprehensive AI research foundation that encompasses high-performance computing resources, data and model sharing, research collaboration, technical support, and education.

Through this, researchers are expected to reduce the time and cost required to set up their own research environments and enable the joint utilization of data and AI models accumulated during the research process, thereby accelerating the era of AI-based scientific and technological innovation (AI4S&T).

The established infrastructure will serve as a core research foundation to support various scientific and technological studies conducted by universities, and is designed to enable researchers to realize environments for ultra-high-speed exploration, simulation, and autonomous experimentation utilizing AI.

This project is expected to establish a new research and development paradigm where AI and science and technology converge, centered around universities, and become a key foundation for a collaborative research ecosystem that leads the AI4S&T era in Korea.

Jongwon Kim, Dean of the AI College (Director of the Supercomputing Center), said, “The success of AI4S&T depends on how easily researchers can utilize the computing resources and data they need,” adding, “GIST will contribute to creating a new innovation ecosystem for domestic science and technology research by building a researcher-centered AI-based shared infrastructure.”