

GIST selected as 'AI Circular Economy Specialized Graduate School' by the Ministry of Environment: Up to 4.75 billion won in research funding for 5 years and full-scale training of convergence-type environmental experts begins

- Department of Environment and Energy Engineering, leaping forward as a circular economy education and research hub incorporating AI and big data technologies
- Operating customized education programs to meet industry demand and strengthening industry-academia cooperation to realize a carbon-neutral society



▲ Overview of the GIST Department of Environment and Energy Engineering building

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that the Department of Environment and Energy Engineering (Dean Youngjune Park) was finally selected as a specialized graduate school in the 'AI Circular Economy' field in the 'Environmental Specialized Graduate School Promotion Project' hosted by the Ministry of Environment.

Accordingly, GIST will receive up to KRW 4.75 billion (approximately KRW 950 million per year) in research funds for five years starting in 2025 and will begin in earnest the cultivation of innovative talents in the circular economy based on AI and big data.

With this selection, GIST has further strengthened its status as a leading university in education and research in the field of environmental and energy convergence utilizing AI technology. In addition, it is

expected to establish itself as a key base for the cultivation of specialized talents for the realization of a carbon-neutral society.

Through this project, GIST plans to promote ▲ opening educational courses tailored to industrial demand, ▲ research on AI and data-based pure environmental technology, and ▲ expanding industry-university cooperation projects and internships.

In particular, the Department of Environment and Energy Engineering plans to operate a problem-solving curriculum that encompasses the five core areas of the circular economy: ▲ carbon circulation, ▲ resource circulation, ▲ water circulation, ▲ ecological circulation, and ▲ energy circulation. In addition, it plans to pursue a field-oriented implementation strategy including ▲ introducing practical collaborative projects with companies and research institutes, ▲ expanding academic exchanges at home and abroad, and ▲ proposing policies based on international standards.

The Department of Environmental and Energy Engineering at GIST has produced excellent research results in various environmental and energy fields such as climate change response, carbon-neutral technology, water treatment and atmospheric environment improvement, and resource circulation.

In particular, it is leading convergence research such as AI and big data-based environmental technology, high-efficiency energy conversion systems, and sustainable circular economy models, and is conducting numerous national research projects and international joint research.

Dean Youngjune Park of the Department of Environmental and Energy Engineering (Project Manager) said, “AI and big data not only provide decisive solutions to complex environmental issues, but are also key tools for driving circular economy innovation,” and added, “With this selection as a specialized graduate school, we will further accelerate the cultivation of convergence-type and practical talents who can understand problems in industrial fields and suggest policy alternatives.”

Meanwhile, the ‘Environmental Specialized Graduate School Development Project’ hosted by the Ministry of Environment and operated by the Korea Environmental Industry & Technology Institute is a national R&D-based talent development program that systematically cultivates environmental experts with the goal of achieving sustainable green industry growth and a carbon-neutral society.