

Gwangju Institute of Science and Technology

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Section of Public Affairs

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GIST Central Research Facilities

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GIST Central Research Facilities is officially opened

- ☐ GIST (President Kiseon Kim) Central Research Facility (Director Seong-Ju Park, School of Materials Science and Engineering Professor) held an opening ceremony on June 27, which included a tour of the building.
 - The opening ceremony was attended by GIST President Kiseon Kim, Director of Research In S. Kim, Dean of the Office of Research Ji-Woong Park, Labor Union Chair Choong-ki Lee and other officials from GIST and other institutions, such as Youngsun Kim of the Korea Electrotechnology Research Institute, UNIST Research Support Director Tae-joo Shin, DGIST Central Facilities Director Bong-ho Lee, POSTECH Technical Support Center Director Bo-hak Song, and Director Tae-geun Roh of the Marine Equipment Development and Operation Center at the Korea Institute of Ocean Science and Technology.
- ☐ The GIST Central Research Facilities (GCRF) aims to build a world-class research equipment center by maximizing research efficiency and joint utilization of high-priced research equipment through the centralization of research equipment at the center.

- The construction was completed over two-years and five-month from November 2016 to March 2019 with 6,702 square meters of floor space that covers four levels and a basement at a cost of 27 billion wons.
- Currently, the Central Research Facilities is aiming to construct and operate a total of 12 laboratories, including surface/structural, physical, spectroscopy, and imaging analysis. It also plans to establish a high-quality analysis service system starting later this year with the introduction of 20 new analysis facilities and the centralization of equipment.
- Equipment at the Central Research Facilities will include: (TEM) transmission electron microscopy and scanning transmission electron microscopy (STEM) \(\bigcirc \) field emission scanning electron microscopes (FE-SEM) \(\blacktriangle \) inductively coupled plasma mass spectrometry (ICP-MS) ▲ Liquid chromatographyspectrometry (LC-MS) \(\textbf{\Lambda} \) as chromatography-mass spectrometry (GC-MS) \(\text{high resolution-gas chromatography-} \) mass spectrometry(HR-GC-MS) ▲ atomic force microscopy (AFM) ▲ computer numerical control (CNC) ▲ 3D printers. Three other equipment (ICP-OES, MALDI-TOF, 400MHz NMR) will be centralized within this year with plans for further centralization. It also plans to build high-tech, high-end equipment needed by members as determined through annual surveys.
- Other advanced high-end equipment to be installed at the center will include an X-ray photoelectron spectroscopy (XPS), nuclear magnetic resonance spectroscopy (600MHz NMR), focused ion beam system (FIB), and variable light sheet fluorescence microscopy (LSFM).
- ☐ All of the equipment that will be housed at the Central Research Facilities will be opened 100% to qualifies professionals and will be provided as an online one-stop service through real-time reservation

and analysis results through research equipment integrated management system.

□ During his commemorative speech, President Kiseon Kim said, "It is very important for researchers to have a good infrastructure for their creativity, and I am very happy to see that happen today at GIST. I hope that the Central Research Facilities will actively collect opinions from researchers and members and contribute to improving the quality of research results through optimal research support services.

□ Director Seong-Ju Park said, "By housing the most advanced and expensive equipment at the Central Research Facilities that actively reflects the needs of researchers and professionals, this is expected to save time and reduce economic burdens for research. We will also provide the highest level of analytical support services through experts in the field."



▲ Ribbon-cutting ceremony from the left: Director Tae-geun Roh of the Marine Equipment Development and Operation Center at the Korea Institute of Ocean Science and Technology, DGIST Central Facilities Director Bong-ho Lee, UNIST Research Support Director Tae-joo Shin, Youngsun Kim of the Korea Electrotechnology Research Institute, Labor Union Chair Choong-ki Lee, GIST President Kiseon Kim, GCRF Director Seong-Ju Park, Director of Research In S. Kim, Dean of the Office of Research Ji-Woong Park, GIST Assistant Director Kyung-tae Lee, GIST Professor Council Chair Chang-duk Jeon, and Energy Valley Technical Director Yongwoo Park



▲ A bird's eye view of the GIST Central Research Facilities