GIST participates in 'Climate Environment and Energy Exhibition' (KEET 2024) and presents key climate crisis technologies and carbon neutrality planning project results

- Energy Valley Technology Institute and Next Generation Energy Research Institute participate in the 'Korea Climate Environment Energy Fair (August 28-30)', exhibit excellent research results in the future energy field and prototypes of new energy industries

- Research Institute for Solar and Sustainable Energies, "GIST's next-generation energy technology will become a hub connecting regional energy companies, institutions, and local governments"... Energy field industry-academia-research technology exchange meeting (tentative name) scheduled to be held in October



▲ President Kichul Lim is taking a commemorative photo while attending the opening ceremony of the '2024 Korea Climate, Environment, and Energy Expo.'

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that the Energy Valley Technology Institute* (Director Kwanghee Lee, Vice President for R&DB) and the Research Institute for Solar and Sustainable Energies* (Director Sanghan Lee) participated in the 'Korea Climate, Environment, and Energy Expo (KEET 2024)' where new environmental and energy technologies can be seen at a glance, and presented prototypes and excellent research results in the new energy industry.

At the opening ceremony held on the afternoon of Wednesday, August 28, President Kichul Lim attended and participated in the 'Eco-Friendly Flower Planting' performance, revealing his will for 'ESG management' for the transition to ecofriendly energy and sustainable development. * Energy Valley Technology Institute: As an energy specialized institute for achieving carbon neutrality, it was jointly established in 2016 by Gwangju Metropolitan City, GIST, and Korea Electric Power Corporation to promote successful establishment of the Energy Valley and regional energy development. Recently, it has been reborn as a regional central organization in the energy sector by serving as a hub for inter-agency solutions to regional energy issues.

* Research Institute for Solar and Sustainable Energies: Established in 2009 to develop core technologies that will drive the expansion of solar energy supply and industrial growth. In particular, it has the 'Heeger Center for New Materials' and the 'Ertl Carbon-Bium Research Center' established with Professor Alan J. Heeger (USA) and Gerhard Ertl (Germany), winners of the Nobel Prize in Chemistry in the fields of organic solar cells, fuel cells, and catalysts, respectively, as its affiliated organizations. It has also established cooperative relationships with Imperial College London (UK), UCSB (USA), and others, establishing a foundation for joint research that transcends borders. Currently, it is expanding its research scope to include AI and energy storage technology, and is developing into a global research institute that is creating the future energy industry landscape.

Energy Valley Technology Institute promoted the results of its project planning business and energy company investment attraction through industry-academia cooperation, and it also exhibited various prototypes of companies benefiting from the customized Glocal company support project, which is a key project this year, and received a positive response from visitors.



▲ Kwanghee Lee, director of the Energy Valley Technology Institute, is explaining a prototype of a company that received customized Glocal corporate support.



▲ Energy Valley Technology Institute is exhibiting various prototypes from companies that benefit from the customized Glocal corporate support project.

The Next Generation Energy Research Institute presented excellent research results in the field of future energy, including \blacktriangle heterogeneous anion argyrodite solid electrolyte (Professor Sangryun Kim), \bigstar nitrogen-doped porous carbon-coated carbon electrode (Professor Chanho Pak), \bigstar multilayer thin film structure zeroenergy cooling material (Professor Young Min Song), \bigstar three-dimensional lithium carrier (Professor Kwang Sup Eom), large-area flexible organic solar cell film (Professor Kwanghee Lee), and \bigstar large-area semiconductor photoelectrode (Professor Sanghan Lee).

In particular, 'Multilayer Thin Film Structure Zero-Energy Cooling Material (Professor Young Min Song - Poel Inc.)' and 'Large-Area Flexible Organic Solar Cell Film (Professor Kwanghee Lee - Recell Inc.)' are the results of industry-academia cooperation where GIST's research results met with the technological prowess of companies.



▲ The Research Institute for Solar and Sustainable Energies is participating in the 'Korea Climate, Environment and Energy Expo (KEET2024)' and showcasing various new and renewable energy technologies.

Research Institute for Solar and Sustainable Energies Director Sanghan Lee said, "The Research Institute for Solar and Sustainable Energies will take a leap forward from the existing original technology R&D-centered research institute to an industry-academia cooperation demonstration-centered research institute, and it will continue to make efforts to create a virtuous cycle as a hub connecting the next generation energy technology possessed by GIST, regional energy companies, and institutions and local governments."

He also said, "As a start, we plan to hold the 'Energy Industry-Academia-Research Technology Exchange Meeting (tentative name)' in October to create a solid cooperative system and form a demand-oriented consortium."

The 'Energy Industry-Academia-Research Technology Exchange Meeting (tentative name)' will explore practical cooperative project models, such as sharing human and material infrastructure and discovering joint tasks through network activation between related organizations in the region, centered around adjunct professors from the Research Institute for Solar and Sustainable Energies who are center director-level experts from regional research institutes.

Meanwhile, the 'Korea Climate, Environment and Energy Expo (KEET 2024)' is the largest climate, environment and energy specialized industrial exhibition in the Honam region, hosted by Gwangju Metropolitan City, Jeollanam-do, and Yeongsan River Basin Environmental Office and organized by Gwangju Tourism Organization. It was held at the Gwangju Kim Dae-jung Convention Center from August 28 to 30, with 265 companies and 600 booths from 30 countries around the world participating.

