GIST holds international workshop on 'AI Convergence Physical Systems' with MIT, University of Washington, and Purdue University in Australia

- Professor SeungJun Kim of the School of Integrated Technology, chaired the international workshop on 'AI Convergence Physical Systems' at the Ubiquitous Computing Conference 'UbiComp 2024' held in Melbourne, Australia on October 6

- Researchers from 12 universities around the world, including Georgia Tech, National University of Singapore, Hong Kong University of Science and Technology, and Osaka University, attended and discussed cases of convergence of physical systems in everyday life and AI and design methods for human-AI interaction for this purpose.

▲ Professor SeungJun Kim's research team, which participated in the 'UbiComp 2024 Academic Conference' in Melbourne, Australia on October 6 and held an international workshop, is taking a group photo.

The Gwangju Institute of Science and Technology (GIST, President Lim Ki-chul) announced that it successfully held the 'AI Convergence Physical Systems Workshop' at the academic conference 'ACM UbiComp 2024' held in Melbourne, Australia.

* ACM UbiComp 2024: The best academic conference in the field of ubiquitous computing hosted by the American Computing Association

Professor SeungJun Kim of the School of Integrated Technology at GIST served as the moderator and co-hosted this workshop in collaboration with MIT, University of Washington, and Purdue University in the United States. Researchers from 12 universities around the world, including MIT, University of Washington, Georgia Tech, National University of Singapore, Hong Kong University of Science and Technology, City University of Hong Kong, Osaka University and Kyushu Institute of Technology in Japan, University of Malta, and Shamoon University of Technology in Israel, attended the workshop to share the latest trends and research results.

This workshop was well-received for not limiting the location and role of AI systems to computers or servers but rather for discussing cases of fusion of physical systems and AI in everyday life and design methods for human-AI interaction for this purpose.

Professor Yiyue Luo of the University of Washington, who gave the keynote speech, introduced 'Digital Fabrication Technology for Wearable Computers.' He attracted the attention of participants by embedding sensing and actuation in the fabric of wearable systems such as clothing and covers, which can innovate the wearability and mobility of AI systems.

The GIST School of Integrated Technology (research team led by Professors SeungJun Kim, Kyung-Joong Kim, and Jin Hyuk Hong) announced a total of eight research results on the topic of 'AI Convergence Interface for Augmenting User Experience in Real-Virtual Environments' in collaboration with MIT, University of Washington, and University of Malta.

▲ Professor SeungJun Kim of GIST is hosting an international workshop on 'AI Convergence Physical Systems' as the moderator at the 'UbiComp 2024 Academic Conference' in Melbourne, Australia on October 6.

The GIST Korea Culture Technology Institute, the only cultural technology research institute in Korea, introduced its research institute and AI-based assistive technologies for improving cultural accessibility for vulnerable groups, including sign language translation services for the hearing impaired and robot services for supporting children's reading activities, which were carried out as R&D projects by the Ministry of Culture, Sports and Tourism, through a special lecture at this workshop.

Recently, as the form of viewing cultural facilities has expanded to customized services that reflect individual tastes and characteristics, the institute explained the importance and potential for development of barrier-free services for the socially disadvantaged, introduced cases of national research projects such as AI convergence creation and mapping technology, and explored possibilities for international cooperation.

Professor SeungJun Kim, who hosted the workshop, said in his opening remarks, "From healthcare applications such as medical diagnostics and daily assistance for children with disabilities to telerobotics and user-interactive content, the applications of artificial intelligence are endless. We hope that this workshop will provide an opportunity to constructively discuss how to design inclusive and interpretable interactions with AI systems that will become part of our daily lives."

This 'AI Convergence Physical Systems Workshop' was supported by the GIST-MIT AI Convergence International Cooperation Project and the Korea Research Foundation's Mid-career Researcher Support Project. Since 2021, Professor SeungJun Kim has been actively conducting joint research with Director Daniela Rus of MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) and Professor Wojciech Matusik through the GIST-MIT AI Convergence International Cooperation Project.

Based on the Mid-career Researcher Support Project, Professor SeungJun Kim's research team plans to continue collaboration with the University of Washington and leading universities in Asia to expand GIST's international research network.

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