

**Gwangju Institute of Science and Technology**

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**GIST Optimal Dementia Management Technology Research Center signs memorandum of understanding with 3L Labs**

□ GIST (President Kiseon Kim) Research Center for Optimal Dementia Management Technology (Director Jong-In Song, Professor School of Electrical Engineering and Computer Science) has signed a memorandum of understanding (MoU) with Triel Labs Co., Ltd., (CEO Jin-wook Lee) to develop related industries such as research and development cooperation for dementia patient management technology.

∘ This agreement was signed on the June 14, 2019, in the GIST Vice President's Office and was attended by the Research Center for Optimal Dementia Management Technology Director Jong-In Song and 3L Labs Co., Ltd., CEO Jin-wook Lee.

□ Early prediction of dementia based on walking combined with dementia patient management technology research determines whether or not dementia is serious by using artificial intelligence to analyze the gait data of people collected by sensors in the shoes for 24 hours during 365 days.

□ To develop this technology, 3L Labs will provide a guided walking data collection sensor called "foot logger" and the Optimal Dementia Management Technology Research Center will analyze walking collected data by using artificial intelligence with the participation of Professor Jung-hwan Kwak of Korea National University of Transportation to analyze patterns related to dementia and to study technologies that can predict or manage dementia patients.

∘ If this technology is developed, dementia management will be possible, such as customized exercise therapy, which delays dementia progress by predicting dementia through biometric information from walking, monitoring dementia progress, and checking accurately whether exercise procedures such as walking were implemented.

□ The two organizations agreed to: △ establishment of institutional linkage system and technology cooperation for research and development of gait-based dementia early prediction and dementia patient management technology △ mutual exchange and cooperation of research and technical personnel △ collaborative research cooperation including basic research and clinical research △ common use of research facilities, experiments, and equipment △ mutual exchange of information necessary for industrial technology development such as R&D performance △ joint hosting of seminars and symposiums related to research and technology development △ mutual information exchange and cooperation through network construction △ other exchanges and cooperation for mutual development.

□ GIST Center Director Jong-In Song said, "Based on this agreement, we will establish a systematic business structure through the development of demonstrative dementia severity monitoring technology for the management of future dementia patients."

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Photo from left: Korea National University of Transportation Professor Jung-hwan Kwak, 3L Labs CEO Jin-wook Lee, Research Center for Optimal Dementia Management Technology Director Jong-In Song, and researcher Mi-hee Hwang