Development of Yield Prediction System Based on Real-time Agricultural meteorological Information

Haedong Lee*, Aekyung Moon *

**ETRI, 218 Gajeong-ro, Yuseong-gu, 305-700, Korea*

haenamu@etri.re.kr, akmoon@etri.re.kr

***Abstract*—This paper contains about the research and the building of an effective agricultural yield forecasting system based on real-time monthly weather. It is difficult to predict the agricultural crop production because of the abnormal weather that happens every year and rapid regional climate change due to global warming. The development of agricultural yield forecasting system that leverages real-time weather information is urgently required. In this research, we cover how to process the number of weather data(monthly, daily) and how to configure the prediction system. We establish a non-parametric statistical model on the basis of 33 years of agricultural weather information. According to the implemented model, we predict final production using the monthly weather information. This paper contains the results of the simulation.**

***Keyword*— Prediction, Meteorology, Agriculture, Yield, Apple**

Haedong Lee received the BS and MS degrees in computer science for Kyungpook National University, Korea, in 1999 and 2001, respectively. In 2001, he joined Electronics and Telecommunication Research Institute, Korea. He is a senior researcher in the Embedded System Research Team. His research interests include convergence of agriculture and ICT, plant image processing, and controlled horticulture.

Aekyung Moon received the MS and PhD degrees in computer engineering from Yeungnam University, Korea, in 1992 and 2000, respectively. In 2000, she joined Electronics and Telecommunication Research Institute, Korea. Currently, she is a senior researcher in the Embedded System Research Team. Her research interests include distributed systems, contextaware middleware, sensor networks, and recommendation systems.