



Won Suk “Daniel” Lee, professor, agricultural and biological engineering, University of Florida, Gainesville, is being honored for his outstanding contributions in the advancement of sensing technologies for precision production of specialty crops.

Throughout his career, Lee has developed a robust research program in precision agriculture, specifically in the implementation of precision technologies for specialty crops. As a result of Lee’s research, sensing technologies have been developed and adopted by growers to help reduce crop production inputs and increase yield, profit, and sustainability. He has an exemplary research record that has received considerable recognition and widespread adoption. Most of his research is conducted in the field on perennial crops, requiring more time to obtain results than those conducted in lab conditions.

Lee, along with a team of researchers, used aerial and satellite-based multispectral and hyperspectral images of commercial citrus groves in Florida to develop methods to rapidly identify trees infected with citrus greening. In order to deal with disease-infected leaf and twig debris, Lee and his team developed a machine vision system that could be installed on a mechanical harvester. This allowed Lee to create an in-field spatial debris map. Lee then designed and tested extended catch frame de-stemmers, which proved to be very effective in removing debris. In order to better quantify the damages to prematurely dropped fruit, Lee developed a counting system using machine vision.

A 23-member of ASABE, Lee has made significant contributions as a leader and member of many ASABE committees. He is an associate editor of the ASABE Information Technology, Sensors, and Control Systems technical community and was president of the Association of Korean Agricultural, Biological, and Food Engineers (AKABFE), a membership community within ASABE. He has also served as a leader within many Information Technology, Sensors, and Control Systems committees including the Machine Vision committee, Electromagnetics and Spectroscopy committee, and Instrumentation and Controls committee.

Lee has authored or coauthored more than 200 peer-reviewed articles, book chapters, and conference proceeding papers. He also holds five United States patents. Throughout his career, Lee has received numerous awards for his writing and research. He was appointed an Honorary Scientist by the Rural Development Administration in South Korea, and received the 2016 University of Florida Institute of Food and Agricultural Sciences Florida Agricultural Experiment Station Patent award. He also received a Term Professorship award and the Research Foundation Professorship award, both from the University of Florida.