1st Workshop on Integrated Processing, Control, and Knowledge Systems for Sustainable Production in Farms and Forests

— IPCK-FF 2015 —

This workshop is designed to bring together experts from the computer science and agricultural research community to create interdisciplinary coverage and allow for further networking between the communities. The focus of the workshop covers data management and the use of IT systems in agricultural and forestry research, as well as research related to agricultural and forestry systems used in practice.

The scope of the workshop covers, but is not limited to, integrated solutions based on a cross-platform architecture entitling standards and related technologies for communication between automation systems and IT systems in farms and forest-related processes; the complete process sequences of smart cultivation in greenhouses, fields, and forests; IoT cloud-enabled agribusiness intelligent information management system platforms and subsystems with corresponding middleware, and security and privacy architecture for process automation, data management, monitoring, and control; novel sustainable intelligent knowledge management subsystems for integrating currently scattered data and resources for optimal conformity, interpretation, and adaptation to agriculture; input–output gateway modules, including wireless standards for medium- and long-range applications; human machine interface demonstrator devices and end-user application services; fusion algorithms and network propagation models for heterogeneous sensor networks and wireless sensor networks, signal/data analysis and visualization bringing together technologies, experience, and research results from industrial automation, IoT and agribusiness sectors; and systems that address the need for seamless data transfer between complex field devices/automation systems and IT systems for several stakeholders in agribusiness and forestry production.