

# **ICT-based Digital Agriculture**

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## **Abstract**

Digital agriculture based on ICT represents an approach that integrates modern technologies into the field of agriculture to enhance productivity and realize sustainable farming practices.

Here are some of the key technologies involved in digital agriculture:

First, remote sensing and monitoring systems allow real-time observation and data collection on crop conditions.

Second, precision agriculture techniques optimize the use of pesticides and fertilizers.

Third, the introduction of automated agricultural machinery reduces reliance on manual labor by mechanizing tasks, increasing efficiency.

Overall, ICT-based digital agriculture maximizes the efficiency of agricultural practices, contributes to environmental protection, and provides benefits to both consumers and producers, offering a new paradigm in agriculture.

## **Biography**

Hyun Yoe is Director of AI based Smart Agriculture Grand ICT Research Center(A-GITRC) at Sunchon National University, Korea. A-GITRC is supported by the Ministry of Science and ICT. He is a Professor of Department of Artificial Intelligence engineering and a Chairman of Dept. of Smart Agriculture of Graduate School, Sunchon National University. He previously worked as a researcher at the Korea Telecom Research Center. Nowadays, his research interests are in Smart Farming Technology and related areas. He is a vice president of Korea Association of Smart-Farm Industry, which is an association of Smart-Farm companies in Korea. He is one of the premier experts on Industrial approaches to Smart Farming Technology. He is deeply interested in the standardization of smart farming technology these days, and he is making a lot of effort to make smart farming standards that industries will use.