

Problem Solving of Local Industries and Communities using IoT

Shinji CHIBA

Professor | chiba@sendai-nct.ac.jp

Affiliated Societies | Information Processing Society of Japan,
The Institute of Electronics, Information and Communication Engineers



Keywords | Embedded system (60040), Sensor network (60060), IoT (60060)

Research Topics

- ICT in agriculture
- Regional observation support system
- Mobile application to encourage local tourism

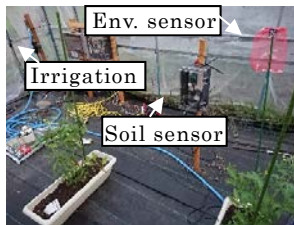
Research Seeds

Applications of IoT system

The following figure shows a system of sensing and control of multiple greenhouses in a region as an example of our studies.



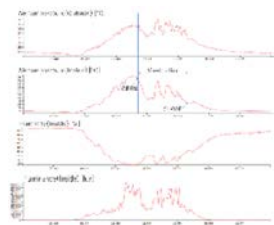
Side curtains



Env. sensor

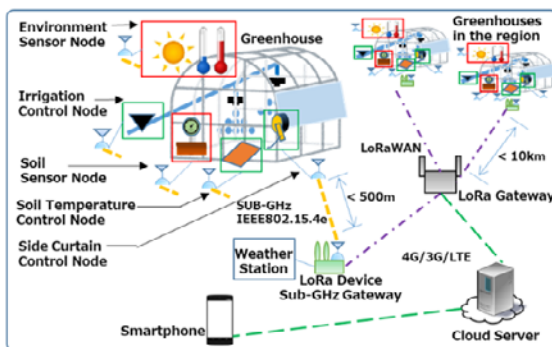
Irrigation

Soil sensor

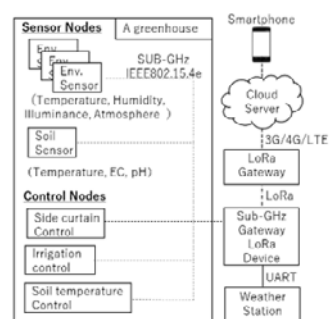


Outside (left) and inside (right) of the developed greenhouse

Graphs of the sensors



Concept of the smart greenhouse system



IoT system configuration

Related Technology

- Embedded system programming
- Mobile applications and web services
- Electronic circuit design