Implement Smart Farm with IoT Technology

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Abstract— **With the advent of Internet of Things (IoT) and industrialization, the development of Information Technology (IT) has led to various studies not only in industry but also in agriculture. Especially, IoT technology can overcome distance and place constraints of wired communication systems used in existing farms, and can expect agricultural IT development from automation of agricultural data collection. In this paper, smart farm system using low power Bluetooth and Low Power Wide Area Networks (LPWAN) communication modules including the wired communication network used in the existing farm was constructed. In addition, the system implements the monitoring and control functions using the MQ Telemetry Transport (MQTT) communication method, which is an IoT dedicated protocol, thereby enhancing the possibility of development of agricultural IoT.**

Keyword— Internet of things, Smart farm, Smart agriculture, Sensor network, Wireless communication.

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