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IoT and Data Analytic in Smart Agriculture

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Abstract: *The research explores the use of IoT in agriculture, focusing on its potential applications in rural development and the agrarian sector. It discusses IoT equipment categorization, platforms, standards, and network solutions. The Internet of Things (IoT) is a network of devices that communicates machine-to-machine (M2M) based on wired and wireless Internet. It is widely used in agriculture for management systems, monitoring, control systems, and unmanned machinery. Wireless communication technologies like Wi-Fi, LoRa-WAN, ZigBee, and Bluetooth are also used. With advancements in communication technologies like 5G, IoT will be applied to various agricultural processes, contributing to automation, increased crop quality, and reduced labour. The system consists of three components: hardware, cloud and mobile application. The hardware collects crop data using sensors & electronic components while the cloud is mediator that transfer data. The mobile application controls Device, allowing automatic or manual control. The system sends notifications via the LINE API for the LINE application.*

Keywords: Internet of Things (IoT), Data Analytics, Agriculture, Technologies, Sensors

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