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(57) Abstract :

Water pollution has become one of the most significant dangers in recent years since drinking water has been contaminated and polluted. Polluted water can cause a variety of diseases in humans and animals, affecting the ecosystem's life cycle. If water contamination is recognized early enough, appropriate steps can be done, and potentially dangerous situations can be averted. The quality of the water should be checked in real time to ensure a constant supply of fresh water. With advancements in sensor, communication, and Internet of Things (IoT) technologies, smart solutions for monitoring water contamination are becoming increasingly important. A comprehensive evaluation of the most recent work in the field of smart water pollution monitoring systems is presented. presents a low-cost, high-efficiency IoT-based smart water quality monitoring system that continuously monitors quality parameters. Fluoride(0 – 14), Combined electrode: Manganese(0–1,000mg/L),Ion selective electrode: Temperature(0 – 60oC),Resistance thermometer(0 – 2,000 mv),Combined electrode: Turbidity(CODeq 0 – 100 mg/L),Optical: Copper(0 – 2,000 mg/L),Ion-selective electrode: Nitrite(0 – 100 ppm),Chloride(0 – 200 mg/L),Oil & Grease: BOD(0 – 1,000 ppm),UV spectral absorption: Ammonical Nitrogen(0 – 100 mg/L). Three water samples are used to evaluate the constructed model, and the results are sent to a cloud server for further action. To monitor the water quality, the data is sent to the cloud via the IoT-based ThinkSpeak application.

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