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Real- Time In-Pipe Drinking Water Quality Monitoring System Design and Implementation
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Abstract
Water is increasingly recognized as a vital and scarce resource essential for agriculture, industry, and the survival of all living beings, including humans. With the rise of pollution and contamination sources, monitoring water quality has become crucial. Current monitoring techniques often fail to provide the necessary Spatiotemporal resolution due to the variability of water quality parameters. Traditional methods involving manual sampling and laboratory analysis are cumbersome, expensive, time-consuming, and ineffective. To address these challenges, this paper proposes a low-cost, real-time, remote, and in-situ water quality monitoring system using IoT and WSN technologies. Experimental results suggest that this system can effectively monitor water quality continuously and accurately even in remote locations. © 2024 IEEE.

Author Keywords
IoT; Performance Evaluation; Sensors; Water Monitoring; Water Quality Parameters

Index Keywords
Design and implementations, Drinking-water qualities, In-pipe, Lot, Performances evaluation, Real- time, Scarce resources, Water monitoring, Water quality monitoring systems, Water quality parameters

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