

The Role of Smart Sensors in Enhancing Leak Detection in Water Systems

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Abstract: *Water firms, regulatory bodies, environmentalists, and others worry about water conservation, yet leakage may go undetected. Studying leakage characteristics has led to numerous water distribution network leak detection methods. Learning about leakage types and properties reveals new tech. Although numerous technologies have become developed in the previous decade, a complete, affordable leakage detection system that identifies background leaking and burst events is still required. Due to benefits and downsides, water utilities struggle to pick the optimal technology. We must classify and benchmark leakage detection methods. This research analyzes hardware, software, invasive, non-invasive, steady state, transient, single, and hybrid leakage detection methods. Focus will be on detection and location of projected leaks. As predicted, methods developed over the last two decades have different capabilities, conditions, and constraints [1]. Comparing and comparing such ways can improve your study knowledge and provide fresh answers.*

Keywords: Leakage Detection, Water Distribution Networks, Pipeline Monitoring