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IoT Water Monitoring: Real-Time Tracking, Auto Turnoff and Alerts

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Abstract: *This paper presents an IoT-based water level monitoring and automatic turn-off system that aims to solve the problem of inefficient water management in households, industries, and agricultural settings. It makes use of an ultrasonic sensor, a microcontroller, and a relay module to monitor the water levels in tanks and automatically controls the water pumps to prevent overflow and optimize water usage. The system transmits real-time data to a Blynk app, which allows users to monitor water levels, receive alerts, and even manually control the pump remotely. The system addresses many of the limitations of manual water management systems, promotes sustainable resource utilization, and has the potential for wider applications in different sectors*

Keywords: Low-Power VLSI Design, Power Dissipation, Dynamic Power, Statistic Power, Short-Circuit Power, Internet of Things (IoT), Energy Efficiency, Clock Gating, Power Gating, Sub-Threshold Design, Leakage Current

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