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## A Study on Advance CNG Station with Web Based Monitoring Technology and Leak Detection System

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Abstract: This paper introduces an advanced Production Control System designed for efficient management and enhanced safety in Compressed Natural Gas (CNG) fuel stations through real-time, web-based monitoring and comprehensive leak detection. The system enables operators to monitor operational status and identify potential hazards swiftly, ensuring immediate response to leaks and improving overall safety. Additionally, features such as vehicle queue detection and real-time CNG availability monitoring streamline service delivery, reduce wait times, and improve customer satisfaction. By integrating modern sensor technology with cloud-based data analysis, this system offers a robust solution that optimizes station management, aligning with the growing demand for reliable and efficient CNG infrastructure..

**Keywords:** CNG fuel station, web-based monitoring, leak detection, real-time queue management, operational efficiency.



