

AI Enhanced Water Flow Scanner to Locate Leaks across Water Transmission Network

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The Water Transmission and Distribution sector in Oman faces numerous challenges, particularly when it comes to identifying and managing leaks in the network leads to public disturbances through shutdowns. In response to these challenges, a research team has developed a wireless flow scanner specifically designed for this purpose. Currently, awaiting further development and testing, the cutting-edge wireless AI Water Flow Scanner aims to address the issue of leaks in a pilot water network spanning 2400 meters. This innovative technology allows for seamless connectivity at two strategic points within the network, enabling the accurate simulation of water flow and providing valuable insights into flow properties at each 1-meter segment. One of the key functionalities of the AI Water Flow Scanner is its ability to identify and locate leakages within the network with remarkable precision. Through advanced algorithms and data analysis, this device can accurately pinpoint any existing leaks at any given point throughout the network. By leveraging artificial intelligence, this state-of-the-art solution revolutionizes the way water networks are monitored and maintained. The AI Water Flow Scanner offers a comprehensive and efficient approach to diagnosing flow-related issues while minimizing time-consuming manual inspections. With its wireless capabilities and advanced scanning technology, this tool empowers water management professionals to swiftly detect leakages, estimate flow properties, and take proactive measures to address potential issues in a timely manner. With its ability to scan and analyze flow properties wirelessly, it offers a more efficient and accurate method of identifying leaks compared to traditional manual inspection methods. Once fully developed and tested, this AI Water Flow Scanner could significantly contribute towards improving water distribution

systems by minimizing losses due to leaks and the society as well by uninterrupted water distribution as well through early prediction of flaws. In near future this AI Water Flow Scanner can also be used even to quantify the flow and bill the consumption at each water reception points across the whole water transmission and distribution network.

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SKILLS

- Communication skills
- Workflow Development
- Process flow
- Visual Design
- Leadership
- Time management
- Adaptability

Language

- ARABIC LANGUAGE
- ENGLISH LANGUAGE

Education

2023

ADVANCED DIPLOMA

University of Technology & Applied Sciences - Ibri

GPA: 3.58

2019

GENERAL EDUCATION DIPLOMA CERTIFICATE

Saif bin Sultan School