

can recognize the digits of water meter in an accurate manner.

6. CONCLUSIONS

Based on the cutting-edge techniques of remote wireless communication and image recognition, this paper develops a smart water metering system that uses the CNN and the NB-IoT to remotely recognize the digits on the water meter. The reading and remote transmission modules of our system can be installed on traditional water meters, eliminating the need to entirely scrap the original water meters. Therefore, the proposed system is very suitable for the upgrade of old water meters, especially those in remote rural areas. In addition, the proposed system effectively reduces the workload and simplifies the process of water management. The research results shed new light on the application of information technology and the AI in water management.

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