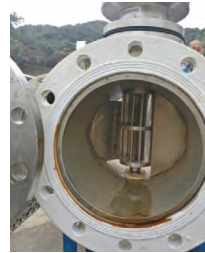


Micro Magnetic Driven Bidirectional Turbine for Hydropower Generation

Professor YANG Hongxing, Professor, Department of Building Services Engineering

Special Features

- ▶ A micro magnetic driven bidirectional hydro turbine was developed to generate electricity using limited water head inside water mains, in order to provide constant and reliable power supply
- ▶ Environmental-friendly
- ▶ Reduce cost



Water supply pipelines monitoring systems are composed of sensors and meters, which need power supply through batteries, which need to be replaced frequently.

The application of magnetic coupling in the developed turbine for avoiding leakage and water pollution make the turbine more reliable. This turbine is helpful to continuous monitoring of leakage and water quality, which can reduce environmental influence caused by waste batteries.

As most water monitoring sensors or meters are powered by chemical batteries, the monitoring system would die once the batteries ran out. Application of the proposed technology can not only make water monitoring more reliable and continuous, but also reduce the high cost and huge labor demand for batteries replacement.



www.polyu.edu.hk/itdo



PolyU ITDO

PolyU ITDO

Food Safety Consortium

itdo@polyu.edu.hk



Innovation and Technology
Development Office
創新及科技發展處

Contact Us

Ir Steven LAM, Manager, Innovation and Technology Development Office

T (852) 3400 2864

E steven.tf.lam@polyu.edu.hk