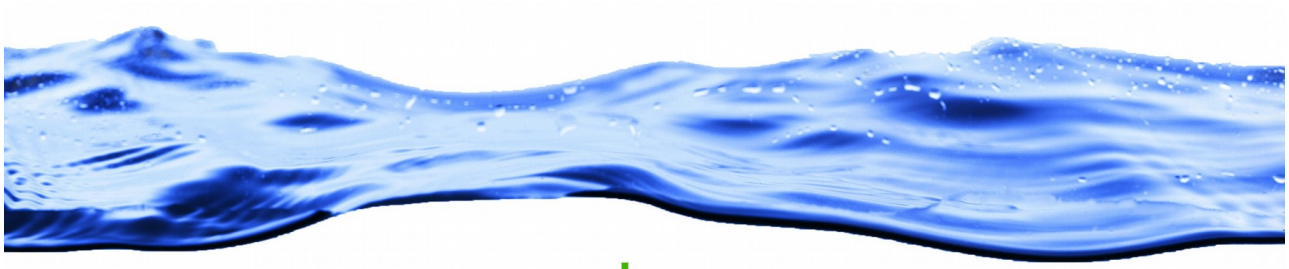


Dŵr Uisce

Energy Recovery in Water Services
Adennill Ynni yn y Diwydiant Dŵr

NEWSLETTER **02 June 2020**

Stay at Home! (but conserve water and energy where you can)

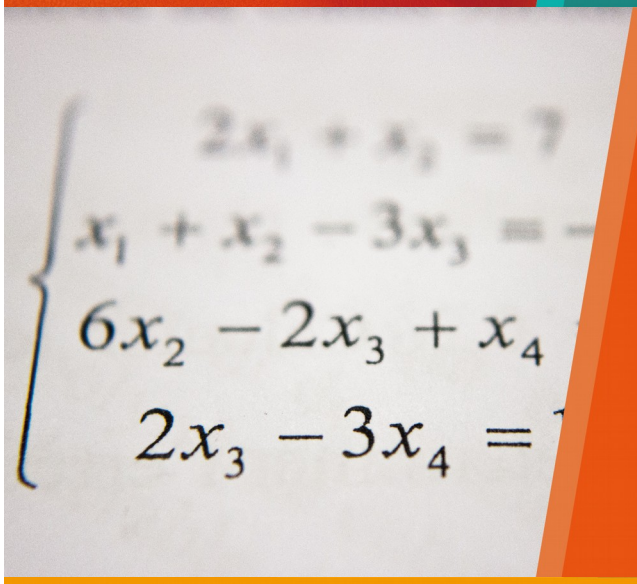
Over the past several weeks, we have all been adjusting to working from home and limiting our movements to occasional outings for grocery shopping or medical appointments. This has been a challenge for everyone, but collectively the positive impact has helped manage this pandemic and the spread of COVID-19. Increased water and energy consumption at home translated higher bills for us as consumers. Here, we want to share ways that can support water savings, and in doing so you have win-wins through saving energy too!

Read more...

Moving Forward: PhD Completion and Micro-hydropower System Operation

Our researcher from Trinity College Dublin - Daniele Novara, has been recently awarded with a PhD degree at the end of a three-year-long research journey. The subject of the dissertation was the development of design guidelines for Pumps-as-turbines in water conduits developed via desk studies and lab experiments, which culminated in the construction of the two demonstration sites of Micro-hydropower Energy Recovery System. These sites are being continuously monitored, and the Irish turbine alone as of March 2020 had generated over 10,300 kWh since its startup which is equivalent to the yearly consumption of 2.5 average Irish households.

Read more...



Modelling of Sewer Wastewater Temperature Dynamics

The heat recovery from wastewater depends upon its flow and temperature in the sewer system. The wastewater temperature in sewer system changes across the longitudinal profile of sewer line because of heat losses and addition of lateral flows. The modelling of wastewater temperature dynamics can provide us insight into the true potential of heat recovery from sewer wastewater and help to determine the optimal location for installation of heat recovery system. This article reviews some existing model for wastewater temperature dynamics modelling and reflect upon the future work of our project within this context.

Read more...

Future Maintenance of Pumps as Turbines

Factors associated with the application of pump-as-turbines in micro-hydroelectric power generation are extensively covered in literature. The main ones being its cost effectiveness and simplicity. Realibility should be one of the factors considered in the application of PATs, but it has little coverage in literature. It is driven by the maintenance strategy in place. Predictive maintenance is one such strategy and its useful in maximising the operating times as it focuses in forecasting faults before they occurs. This helping maintenance activities to be scheduled at the most opportune time, hence avoiding unplanned failures and shutdowns.

Read more...

JOIN (OR RECOMMEND) THE DŴR UISCE WATER SPECIALISATION CLUSTER

Are you a company, a consultant, a university, a scientist interested in saving water and energy? Are you in one of the regions in Ireland or Wales covered by the INTERREG funding initiative:

- Ireland - Carlow /Cork /Dublin City /Dun Laoghaire / Rathdown / Fingal /Kerry /Kildare /Kilkenny /Meath /South Dublin /TipperaryWaterford /Wexford / Wicklow
- Wales - Carmarthenshire /Ceredigion /Conwy / Denbighshire/ Flintshire / Gwynedd /Isle of Anglesey / Pembrokeshire /Swansea / Wrexham

You may eligible to join our SMART SPECIALISATION CLUSTER and benefit from a range of services we offer. Click here for more information.

BUSINESS SUPPORT

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All project updates, progress, activities and events are posted regularly and shared widely on our @Dwr_Uisce Twitter account.

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Funding agency:

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