

## Smart heating & reducing energy bills



As you'll know, there are sensors in your home collecting data about your electricity use and the temperature in your home. We're doing this in order to understand how a smarter heating system might reduce energy bills.

Dr. Tam Menneer is a Research Fellow working with mathematicians, Professor Stuart Townley and Dr. Markus Mueller, at the Penryn Campus of the University of Exeter. We asked Tam some questions about her research.

### *How will the temperature and electricity data be used?*

We will compare the temperature in your home with the external temperature. The difference between them shows us how much you have increased the temperature inside your home and we can look at how much electricity has been used to achieve this increase.

### *How would that help reduce electricity bills?*

Smart heating could prevent your home from being overheated beyond the average temperature. The system could also learn when you like to have the living room warm.

We are working with a local business, The Smart Home Company, to understand how temperature can be controlled by such a system. We can then predict how much electricity would be needed to produce ideal temperatures.

We expect that the electricity needed will be less than that actually used, especially in the very cold weather, when people might be more likely to overheat their homes. We can then work out the money that would be saved by smart heating.

### *Why isn't gas use being monitored in all homes?*

Not all gas meters are suitable for getting accurate measures. Homes in the Smartline project have been put into groups of homes that are similar to each other. For example, homes that are flats, have two people living in them, or have young children. We are measuring gas use from a few homes in each group so that we can use that information for the rest of the group.

### *How will the research help people in Cornwall?*

Working with local businesses will help fuel the job market and the economy. Well-being can also be improved due to reduced worries about bill costs, and by using smart heating to meet our physical needs.

Smartline has been funded in Cornwall by the European Union Regional Development Fund in order to help local businesses develop new technologies and increase job opportunities in the county.



**European Union**  
European Regional  
Development Fund

The South West Academic Health Science Network (SW AHSN) has provided additional funding to Smartline.

South West  
Academic Health  
Science Network



## Smartline Community News

ISSUE 3 - SEPTEMBER 2018



### USING YOUR TABLET

Please turn on your tablet at least once a month.

We send monthly research surveys to them so there could be one waiting for you!

### NEED IT SUPPORT?

Help is available if you are struggling with your tablet computer.

Please contact Gavin at Switch Community:  
01209 61098  
gavinb@switchcommunity.co.uk

You can also suggest new apps and content for the tablets by speaking with Gavin.

Welcome to another edition of the Smartline newsletter.

Inside you'll find a number of articles from the academics at the University of Exeter; they talk about advancing asthma research, how you're contributing to our understanding of volunteering and how they will use your sensor data to reduce future energy bills.

There is also an article about the Food for Change programme, for those interested in learning how to grow, cook and trade food. There are a number of Food for Change activities available across Camborne, Pool and Redruth and sign up details are inside.

New Smartline community activities are regularly being setup so please get involved. Soon to start:

- Free exercise sessions at the Wesley Chapel every other week until January starting on September 21st. This will be followed by refreshments supported by the Red Cross.
- A 3 week IT awareness programme starting on November 1st at the Wesley Chapel for anyone in the local area that would like to become more confident in using their tablet or computer.

If you'd like to get involved with the community activities please contact Karen Spooner, KarenS@volunteercornwall.org.uk or 07968 706114.

The sensor maintenance program will start soon (running for 3-4 months). Blue flame will be in touch to arrange an appointment to check the sensors and replace any batteries required, as well as reward you with another £10 shopping voucher.

We hope you enjoy the newsletter and find it informative and inspiring. If you would like to suggest future topics or add content please contact us by emailing Smartline@exeter.ac.uk or calling us on 01872 258140.

