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Dr Julian Greaves

Greener energy control at Green Park House, Bath.

- **Electric room and water heating**
- **Installation without disruption was a real enabler**
- **Open window detection**

Dr Julian Greaves is the Sustainability manager at Bath Spa University and his job entails energy management, waste management, environmental legal compliance and helping the University to be a more sustainable organisation through engagement and curriculum development.

When the university took over Green Park House in the centre of the city, it became apparent that a control system was needed to ensure efficient use of energy for heating. As Dr. Greaves explains "Green Park House is a 460-bed accommodation unit that was built speculatively by developers. As a result it used electric heating and electric hot water but had no controls whatsoever apart from a boost button."

In addition to satisfying the criteria from a performance and energy savings perspective, another deciding factor was the ease of installation, as he explains. "The ability to install the system without disruption to the fabric of the building was definitely an enabler for the project, we really didn't want to start interfering with walls and ceilings to install data cabling and things like that."

Energy costs were very much a primary consideration in the choice of control system and with Prefect Control's calculation predicting up to 40% savings, Irus became a very attractive proposition. Dr Greaves continues, "The software package enables us to

understand the occupation of rooms. There is a lot of useful information that it gives us, providing much more than simple temperature control. We are learning how to make the most of the full extent of these features. The information we receive on the immersions in cylinders, for example, is highlighting immediately when there is problem with any of the hot water tanks, so for maintenance it is great. It shows us what the hot water consumption is for each of the tanks, so that gives us an idea of how much provision we need to make for the students."

"There are all kinds of little things. The ability to increase the temperature in a student's room, when they ask for it, and then for it to automatically return back to the original settings after a period of time, is very useful. It makes sure that if changes are made to the settings then they are not just left there forever, they always revert back. Irus is so simple to use, we haven't had any complaints from students on the operation of the system or the comfort levels, so that says something!"

Another innovation on the Irus CU3 is the window-open detection technology. The algorithms 'learn' how long a room takes to reach a pre-determined temperature and also the dissipation rates. If there is a sudden temperature drop, the only explanation is that a window or door is open, allowing heat to escape rapidly. "We are using the algorithm that assesses whether a window is open, which is very useful."

Data is being monitored closely to assess savings, however as Dr Greaves explains, "we need to go through a whole heating season before we can assess the saving's, but we are really pleased with the system, it fulfils all the criteria and then some."



**Cleverly simple
control of energy.**