



Smart Building Management System

Sector(s): Electronics, Sensors and Photonics, Energy and Renewables, Environment and Sustainability

About Opportunity

Energy used by domestic and non-domestic buildings accounts for approximately 30% of UK carbon emissions, so there is significant opportunity for better management of building energy systems.

Technological advances mean that innovative wireless sensors and metering systems can gather fine granularity data on building function and performance.

Smart sensing and adaptive energy management software can greatly decrease the energy usage of systems in many building applications, for example by enabling the operator to shut off HVAC to unoccupied rooms.

Glasgow Caledonian University (GCU) has developed a building management system which continuously monitors sensors responsible for controlling environmental parameters; room temperature and humidity, air quality, lighting, room occupancy, power usage etc. The system is able to optimise these parameters through remote energy monitoring.

Key Benefits

- More efficient building energy control
- Greater building energy efficiency
- Higher levels of occupant comfort
- Reduced building carbon footprint
- Lower building energy costs

Applications

- Domestic building energy management system
- Non-domestic building energy management system
- Industrial control system
- Smart meters

IP Status

A patent application has been filed to protect the technology and the University is seeking commercial partners interested in developing, licensing or exploiting this technology.



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