



Job Title: Controls and Systems Engineer (BMS)

Unit/School: University Environments

Grade: 5A/B

HERA: UE9

Core purpose of role

The Controls and Systems Engineer (BMS) is to play a vital role within the Estates Maintenance and Development Team in optimising the internal environment of our buildings for learning, whilst minimising energy consumption.

Reporting to the Statutory Maintenance Engineer, and working in close collaboration with the Energy Manager, the post holder will be responsible for the active management, monitoring, and optimisation of the University's building management systems (BMS) to improve internal environmental quality, reduce energy consumption, and support the University's Strategy 2030 and net zero carbon commitments.

Where existing controls and metering are lacking, the post holder will evaluate, recommend, and, where appropriate, implement solutions that integrate with existing systems to enhance building performance and operational efficiency.

The post holder will primarily work on Trend BMS systems but will also provide technical support on other building control and automation systems. They will contribute to improving the student and staff experience by ensuring campus environments are safe, comfortable, optimised for learning and energy efficient. The post holder will work with other team members to actively target the removal of energy waste, and minimise the performance gap through targeted focus on our existing estate whilst acting as our in-house expert advising on control strategies and integrations as part of refurbishments and new build works.

The engineer will be expected to carry out in-site repairs, modifications and small-works installations.

The post holder will be part of a small, collaborative team and will be expected to work flexibly to support other related functions and priorities as required, to help deliver the desired outcomes for the team and the University as a whole.

Key responsibilities and contributions

- Monitor and manage the performance of the University's building management systems (BMS), primarily Trend, to maintain optimal internal environments,

proactively adjusting system settings and strategies to achieve a balance between maintaining high-quality conditions for learning and minimising energy consumption.

- Undertake diagnostics, fault finding, and remedial action to address issues in BMS-controlled plant and systems.
- Utilise a university-supplied Trend engineering licence to make live system changes, programming, software modifications and integrations to improve building performance and energy efficiency.
- Carry out small works, programming, software modifications and integrations to improve building performance and energy efficiency.
- Support energy and environmental monitoring and reporting through data collection and BMS optimisation, including overseeing, managing and extending utility metering and sub-metering systems, and the integration of IoT-based sensors and controls into the BMS.
- Assist in the planning and delivery of energy reduction and carbon reduction projects. Prepare and/or review BMS specifications, designs, and installations to ensure optimal integration with existing systems and future-proofing of controls infrastructure.
- Work collaboratively with other team members within the Estates Maintenance and Development Team and across the wider University Environments team, including Estate Services and Operations, Digital Services and the Climate Action Team, as well as external contractors, to resolve BMS and controls-related issues.
- Liaise with the Digital Services department to maintain backups, update firmware/software versions, and ensure system security.
- Maintain accurate records of BMS configuration, settings, and maintenance interventions.
- Liaise with academic and professional service stakeholders to ensure building controls meet user needs, providing and prompt reactive service where required to address issues encountered.
- Subject to approvals, support and enable 'Living Lab' activities, supporting research and teaching activities undertaken by our academic community based upon the operation of our estate.



- Provide support for future upgrades, integrations, and enhancements of the BMS and associated controls, and actively explore, propose, pilot, and implement initiatives to enhance controls that optimise internal environments, minimise energy use, and support carbon reduction targets.
- Play a pivotal role in the University's transition away from Trend 963
- Keep up-to-date with training, advances in BMS and building automation technologies and participate in external sector networks to share knowledge, best practice, and ideas. Develop and implement automated alerts, reporting tools, and dynamic adjustments to optimise building management system performance and operational efficiency.
- Ensure all work is carried out in accordance with health and safety, statutory compliance, and University procedures.
- Oversee, inspect and validate the work of any external consultants or contractors appointed to advise or work upon our building management and control systems.
- Contribute to a customer-focused, student-centred estates service with a strong desire to maximise performance and create exemplar operational outcomes from the University's existing building assets.
- Willingness to work as part of an on-call rota, responding to unplanned emergencies and overseeing works required to be undertaken out of hours.

Person specification

Essential qualifications / Professional memberships

- Recognised technical qualification (e.g. City & Guilds, ONC, HNC) in building services, electrical engineering, controls engineering, or a related discipline.
- Manufacturer training and/or experience on Trend BMS systems.

Essential experience, knowledge and skills

1. Proven experience of working on Trend BMS systems in a multi-campus environment.
2. Knowledge of BMS architecture, software, and hardware controls.
3. Experience in fault finding and resolving BMS-related plant and equipment issues.

4. Understanding of energy management principles and how BMS can support carbon reduction.
5. Exceptional analytical and diagnostic skills with a proven ability to interpret system data, identify root causes of faults, and deliver effective solutions.
6. Experience of working collaboratively with maintenance teams and contractors.
7. Commitment to customer service and a student-centred approach.
8. Good communication and interpersonal skills.
9. Proactive approach to problem solving and continuous improvement, with the ability to manage tasks effectively and work independently when required.
10. Knowledge of health and safety regulations and safe working practices.
11. Ability to work flexibly and manage changing operational priorities within a busy Estates environment.
12. A demonstrable commitment to continuing professional development.

Desirable

1. Experience of working with other BMS platforms in addition to Trend.
2. Experience of working in a higher education or public sector estates environment.
3. Manufacturer certification or advanced user status on Trend systems.

Welsh skill requirements

Welsh is essential to our students and staff and is a key part of our provision and services. For every position at Cardiff Met, proficiency in Welsh language is either essential or desirable. You can find information about the levels by viewing our booklet: [Welsh language skills levels](#). If a skill is listed as essential in the table below, please ensure you demonstrate this in your online application form.

Language level and general descriptor	Listening	Reading	Speaking	Writing
A1 – Beginner Can understand and use familiar everyday expressions and very basic phrases in Welsh.	Desirable	Desirable	Desirable	Desirable



A2 - Basic user Can deal with simple, straightforward information and communicate in basic Welsh.				
B1 - Intermediate user Can communicate, to a limited level, in Welsh about things that are familiar and/or work related.				
B2 - Upper intermediate user Can express myself in Welsh on a range of topics and understand most of a conversation with a native speaker.				
C1 - Fluent user Can communicate fluently in Welsh.				
C2 - Master user Can communicate fluently on complex and specialist matters in Welsh.				

Disclosure & Barring Service requirements

This post does not require a DBS check.

Supporting information

The University is a dynamic organisation and changes may be required from time to time. This job description and person specification is not intended to be exhaustive.

The University is committed to the highest ethical and professional standards of conduct. Therefore, all employees are expected to have due regard for the impact of their personal behaviour and conduct on the University, students, colleagues, business stakeholders and our community. Each employee must demonstrate adherence to our Code of Professional Conduct. In addition, all employees should have particular regard for their responsibilities under Cardiff Metropolitan University's policies and procedures.