University of Edinburgh

Job Description

1. Job Details

Job title: Controls Engineer C/E&B/035

School/Support Department: Estates & Buildings

Unit (if applicable): Works Division

Line manager: Senior Controls Engineer

2. Job Purpose

Deliver all aspects of the University’s Building Management Systems (BMS) programme to ensure that environmental conditions and critical services throughout the University are within specification. Provide the University specialist professional engineering expertise in BMS systems and oversee the controls maintenance programmes.

3. Main Responsibilities

1. Supervising and liaising with specialist Controls contractors on Direct Works Engineering contracts and Maintenance / Service contracts     Approx. % of time 35%

2. Audit controls systems within targeted buildings, setting up alarm reporting and temperature logging and analysing them as part of an ongoing review of all buildings to identify waste reduction opportunities and operational problems 20%

3. Liaising with external Mechanical & Electrical Consultants and Estates and with UoE Project Leaders / Premises Managers / Engineers on the design and specification of projects from initial design stage to completion and handover 15%

4. Monitoring the two bespoke Building Management Systems, setting up logging, alarm reporting and temperature recording and analysing data 10%

5. Trouble-shooting controls-related breakdowns and queries identified by UoE Premises Teams, Heating Engineers and Electricians 10%

6. Administration of Controls projects budgets and invoicing for all Direct Work Engineering contracts and Maintenance / Service contracts 5%

7. Training UoE Premises Teams, Heating Engineers and Electricians on the Satchwell and Trend BMS systems 5%

4. Planning and Organising

- Planning the Controls component of all Capital and Major Replacement projects to ensure best value is achieved within budget and program timescales.
- Planning Maintenance Schedules for all Controls Engineering Works.
• Liaise with external Consultants, Contractors and Project Managers on all aspects of BMS development within the university.

5. Problem Solving

• Deal with both contractual and technical controls related problems, drawing on sound working experience of commissioning systems in contracting and a comprehensive knowledge of how BMS control systems operate.
• React to daily BMS queries and problems encountered by College Premises Teams.
• Independently fault find to a very high level, BMS and other related building services faults, using sophisticated software tool packages, within a highly technical engineering environment.

6. Decision Making

• Give guidance to Project Managers on all Capital and Major Replacement projects to ensure best value is achieved within budget and program timescales.
• Decide on best technical solutions available to achieve environmental conditions within predetermined parameters.
• Ability to adapt existing systems and maintain partial services on own initiative during unexpected breakdown of plant in critical installations.

7. Key Contacts/Relationships

• Liaise closely with Senior Controls Engineer, Engineering Operational Manager and Premises Teams on controls related matters to achieve best practice solutions for Capital Works, Major Replacements, Maintenance Contracts and day to day breakdowns.
• Develop good working relationships with external Consultants, controls contractors and suppliers.

8. Knowledge, Skills and Experience Needed for the Job

1. Professional Engineering qualifications in Building Services to degree level or equivalent and a minimum of five years multidisciplinary mechanical and electrical controls engineering experience.
2. A high level of computer literacy in specialist Controls software is essential together with good numeric skills. Ability to re-engineer configuration of existing systems essential.
3. Must be self-motivating, able to work on own initiative and liaise effectively with managers and other staff operating in a multi-disciplinary environment.
4. Good verbal skills required for contributing expert advice at meetings with Design Team professionals and client reps and written communication skills for recording guidance, recommendations and advice.
5. A sound knowledge of MS Office and estates and project management systems required.
6. A good working understanding of energy engineering is required.
7. A sound knowledge of building contract administration is required.
8. Knowledge of the Health & Safety at Work Act and the CDM Regulations is required.
9. A current clean driving licence is useful but not essential.
10. Ability to work within a team environment with minimum supervision is vital.

9. Dimensions

- Provide technical support for university Premises Teams, Design Teams, external Consultants and university end-users in all Controls related services matters.
- Responsible for arranging, negotiating and administering Controls Maintenance Contracts totalling £100k.
- The post holder will be involved in developing, implementing and controlling BMS systems for a range of projects from the following works programmes:

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Funding</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Projects (central funding)</td>
<td></td>
<td>£2000k</td>
</tr>
<tr>
<td>Small Projects (alternative funding)</td>
<td></td>
<td>£1500k</td>
</tr>
<tr>
<td>Fire, Health and Safety (central funding)</td>
<td></td>
<td>£150k</td>
</tr>
<tr>
<td>Security (central funding)</td>
<td></td>
<td>£50k</td>
</tr>
<tr>
<td>Major Maintenance Replacements (central funding)</td>
<td></td>
<td>£3200k</td>
</tr>
</tbody>
</table>

10. Job Context and any other relevant information

Given the specialist technical nature of BMS equipment and programming the postholders work closely with both external consultants and with University Project Leaders and engineering staff. This involves negotiating on the detailed technical input to the overall controls strategy for larger projects, checking Controls contractors’ wiring diagrams, schematics and controls algorithms and providing clear written and other feedback on non-conformance with University Specification and project requirements.

Interpreting the most appropriate way of delivering a desired objective for client group or consultant involves face-to-face meetings, phone and written communication skills.

The post-holder will advise on best energy engineering practice and seek to continually improve the energy efficiency of the University estate.

As the University’s expert staff in this specialist field the post-holder will have the main responsibility for ensuring that Controls contractors deliver best value solutions optimised to meet client bodies’ requirements.