

Job Title:	Building Physics Engineer
Hours of work:	35 Hours per week (this is a full-time post)
Contract:	Fixed Term (until 31.3.2023)
Salary:	Competitive
Location:	Swansea or Gloucester

About the project:	<p>The Active Building Centre is a centre of excellence working to accelerate the UK's drive towards net-zero carbon by transforming the way buildings are powered and heated.</p> <p>Founded in 2018 as part of the UK Government's Transforming Construction Challenge, the Active Building Centre is a government backed Research and Technology Organisation (RTO) who are collaborating with industrial and academic partners to mobilise and deliver applied research, product development, commercial engagement and the realisation of a comprehensive demonstrator portfolio.</p> <p>The Active Building Centre sets the standard for the clean, efficient and climate-friendly communities of tomorrow by designing prototype buildings that act as proof of concept and a template for the construction industry, as well as by advising housebuilders and homeowners on new-builds and retrofitting.</p> <p>Our research promotes sustainable construction, shapes future living, improves building performance, alleviates fuel poverty and helps decarbonise the UK's energy supply.</p> <p>Our mission is to identify and integrate the best materials, design and equipment for building homes, workplaces and communities that actively combat climate change, rather than fuelling it.</p> <p>We are developing an ambitious portfolio of advanced multi-sector demonstrators which are sustainable, perform better, are more comfortable and will significantly contribute to decarbonisation.</p> <p>As part of a highly skilled team looking to transform the energy and construction industry and drive policy change, you will be open to new ideas, bring fresh thinking, and be ready to play your part in delivering the case for Active Buildings.</p>
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<p>About the role:</p>	<p>ABC is looking for a multi-disciplinary Building Physics Engineer to join our Special Projects team.</p> <p>You will be degree qualified in Building Physics with Post Graduate experience delivering energy modelling and building performance evaluation using various building design/assessment software(s) and techniques.</p> <p>You will be a team player with good technical knowledge of building fabric, and mechanical and electrical systems, including renewable energy. Your role will be to deliver energy and whole life carbon modelling and lifecycle cost assessments using various software(s), produce reports, and support the delivery of sustainable designs.</p> <p>This is a great opportunity to use your expertise in building physics, dynamic thermal modelling, renewable energy modelling, building energy performance, thermal comfort, and façade performance, including passive house design approaches.</p>
<p>Key Responsibilities:</p>	<p>You will be responsible for:</p> <ol style="list-style-type: none"> 1. Dynamic Simulation Modelling of buildings to assess predicted energy demand and generation options. 2. Assessment of existing buildings for energy performance, to identify upgrade opportunities based on the assessment. 3. Assessment and evaluation of building performance, including building fabric and systems. 4. Post Occupancy Evaluation of new and existing buildings. 5. Carry out or review Building Physics simulations for both compliance and building performance engineering. 6. Model a range of heating, ventilation and cooling (mechanical or passive) systems on projects. 7. Assessment of whole life carbon and lifecycle costs of new and refurbished existing buildings. 8. Write reports to disseminate results of modelling and assessments. 9. Analyse existing working practices and proactively suggest new ideas or more efficient ways of working.
<p>General Duties:</p>	<ol style="list-style-type: none"> 1. Promote equality and diversity in working practices and maintain positive, inclusive working relationships.

	<p>2. Lead on the continual improvement of health and safety performance through a good understanding of the risk profile and the development of a positive health and safety culture.</p> <p>3. Ensure that risk management is an integral part of any decision-making process.</p> <p>4. Any other duties as directed by the CEO of Active Building Centre Ltd (or their nominated representative).</p>
<p>Person specification:</p>	<p>Qualifications & Experience:</p> <ul style="list-style-type: none"> • Education: Built environment based undergraduate degree and relevant post graduate degree with experience delivering energy modelling using various building design / assessment software <p>Knowledge and Skills:</p> <p>Essential:</p> <ul style="list-style-type: none"> • Good understanding of building construction processes, building materials, building services, building sciences and a passion for delivering low or net zero carbon buildings. • Qualified or aware of building performance testing method such as Heat Transfer Co-efficiency, Thermography, air-tightness and in-situ u-value assessments. • Good awareness of building standards: Passive House, LETI, BREEAM, LEED and Well Standards. • Previous experience of software such as DesignBuilder, IES, PHPP, Revit, PV Sol, Homer Grid, EnergyPro or EnergyPlus <p>Desirable:</p> <p>Experience of designing zero/net zero/low carbon buildings incorporating smart/active building technologies and/or designing low carbon retrofit solutions for existing buildings.</p>
<p>Equality & Diversity:</p>	<p>ABC is fully committed to providing equal opportunities for all job applicants by supporting and promoting equality and diversity in all of its practises and activities.</p> <p>We aim to establish an inclusive environment and welcome applications from the following protected characteristics: age, disability, gender reassignment, marriage and civil partnership,</p>

	pregnancy and maternity, race (including colour, nationality, ethnic and national origin), religion or belief, sex and sexual orientation.
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