



Job title	Research Assistant	Job family and level	Research and Teaching Level 4a
School/ Department	Buildings, Energy and Environment Research Group. Faculty of Engineering	Location	University Park Campus

Purpose of role

This role will be responsible to carry out research on ‘Zero Emission Power Generation Using PCM Thermal Battery (ZeroEPowerGen)’

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	Carry out work on a Zero Emission Power Generation System. The work programme will involve several tasks including mathematical modelling, design system components, construction and lab testing of a prototype.	60%
2	Production of reports, presentations and outreach to the industry, scientific community and public. Further dissemination of results should also occur through invited oral and poster presentations at international meetings, conferences and seminars.	10%
3	Publication of papers in national/international conferences and refereed journals. Assist with proposal writing.	20%
4	Liaison meetings with the partners. Assist with supervision of students. Participate in regular meetings with the Buildings, Energy & Environment (BEE) Research Group.	5%
5	Facilitate the growth of the BEE Research Group through research excellence and contributing in writing proposals to attract funding from research organisations such as EPSRC, Innovate UK and industry	5%

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> • Demonstrated ability of teamwork. • Experience of report writing. • Demonstrated creativity and leadership in problem solving. • Excellent communication and presentation skills. • Ability to read and produce engineering drawings. • Good general IT skills, including a good working knowledge of word processing, spreadsheets, and email systems. • Innovative and creative thinker. • Dedicated and hardworking with a good working attitude for a demanding role. • Excellent planning and organisational skills with an ability to ensure deadlines are met. • Excellent communication skills; able to effectively communicate technical information to a variety of audiences. • Ability to work in a team as well as on own initiative. • Willing to work closely with industry and to meet their expectations. 	<ul style="list-style-type: none"> • Skills in thermal modelling of energy systems. • Skills in writing research papers and project progress reports • Liaising and networking with industry and project partners. • Experimental design, taking measurements, results interpretation and analysis. • Have a genuine interest in power generation/energy systems and engineering. • Desire to develop further expertise in this area of engineering research.
Knowledge and experience	<ul style="list-style-type: none"> • Relevant knowledge /experience in design, modelling and testing of power generation/ energy systems. • Experience of report writing. • Research experience in mathematical modelling, simulation and experimental design and testing of thermal energy systems. Also experience in manufacturing methods and system integration of sustainable energy technologies in buildings. 	<ul style="list-style-type: none"> • Research experience or sound expertise in modelling and experimentation of power generation/energy systems and thermochemical materials • Experience of working within a closely related thermal engineering or building physics disciplines.
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> • A degree in energy systems, building services engineering, mechanical engineering, building technology or chemical engineering. • Publications related to energy systems. 	<ul style="list-style-type: none"> • Working towards a PhD in energy systems, building services engineering, mechanical engineering, building technology or chemical engineering.



Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others



