Candidate Information

Position:	Research Fellow - (NextGenFCEV)
School/Department:	Mechanical & Manufacturing Engineering
Reference:	21/109442
Closing Date:	Monday 20 December 2021
Salary:	£34,304 per annum
Anticipated Interview Date:	Friday 28 January 2022
Duration:	Available until 31/05/2025

JOB PURPOSE:

To be a highly productive, ambitious and collaborative member of the NextGen Fuel-Cell Electric Buses to Accelerate a Low-Carbon Hydrogen Economy (NextGenFCEV) research project, assisting in the planning and delivery of a novel heating, ventilation, and air conditioning (HVAC) system for the fuel-cell buses.

The post is a critical role, and as such, successful applicants will have responsibilities in planning, supervising and conducting independent research, day to day lab management, and collaborating with NextGenFCEV partners.

MAJOR DUTIES:

1. Undertake research within the NextGenFCEV project, including working with partners to develop a fully integrated HVAC system for the fuel-cell buses.
2. Design, develop and refine research into subjects including body airflow paths, fan technology, refrigerants, double glased windows and insulation, noise reduction.
3. Carry out analyses, critical evaluations, and interpretations of experimental data and the literature using methodologies and other techniques appropriate to HVAC systems.
4. Produce high quality research outputs consistent with project aims and commensurate with career stage. This will include collaborating and co-authoring with PI and project team on outputs.
5. In consultation with the project team, promote research milestones and outputs at national and international conferences.
6. Assist grant holder in the preparation of funding proposals and applications to external bodies.
7. Carry out occasional educational supervision, demonstrating or lecturing duties within the post holder’s area of expertise and under the direct guidance of a member of academic staff.
8. Undertake supplementary duties relevant to the success of the project including administrative duties and additional training and development activities as required.

Planning and Organising:

1. Plan own day-to day activity within framework of the agreed research programme.
2. Contribute to the planning of research project, reports and publications etc.
3. Assist PI and project team in organising relevant events.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance, as required, to ensure a safe working environment.

Internal and External Relationships:

1. Liaise on a regular basis with members of the project team.
2. Liaise on a regular basis with project partners, including Bamford Bus Company Ltd and Grayson Thermal Systems Ltd.
3. Build contacts with relevant stakeholders to form relationships for future collaboration and project dissemination.

ESSENTIAL CRITERIA:

1. Have or about to obtain PhD in a relevant discipline or subject.
2. At least 3 years relevant* research experience to include:
   - Undertaking research in thermal comfort modelling and HVAC systems.
   - A proven track record of carrying out analyses, critical evaluations, and interpretations of experimental data relating to HVAC systems.
   - Working effectively as part of a research team in the development and promotion of the research theme.
3. Ability to contribute to broader management and administrative processes.
4. Contribute to the School's outreach programme by links with industry, community groups etc.
5. Practical problem solving skills, independence of thought and initiative.
6. Ability to assess and organise resources.
7. Ability to communicate complex information in English effectively in oral and written format.
8. Ability to build relationships to develop internal and external networks.
9. Commitment to continuous professional development.

DESIRABLE CRITERIA:

1. Research experience in body airflow paths, fan technology, refrigerants, double glased windows and insulation, noise reduction.