



<b>Job title</b>	Research Fellow in Research and Development in Energy, Mobility and Cities: Vehicle-to-Everything (V2X) Systems (Title will be 'Research Associate' where an appointment is made before PhD is completed)	<b>Job family and level</b>	Research and Teaching Level 4 (Appointment will be Level 4 Career training grade where an appointment is made before PhD has been completed)
<b>School/ Department</b>	Faculty of Engineering	<b>Location</b>	Dept. of Architecture & Built Environment, University Park

## Purpose of role

Our EV-shAIR project consortium will focus on the business models which will enable the creation of value from V2X technologies for the benefit of the electricity operations at the East Midlands Airport to create an exemplar by using the collective battery capacity of parked EVs at the airport for the needs of the airport daily operations.

	<b>Main responsibilities</b> (Primary accountabilities and responsibilities expected to fulfil the role)	<b>% time per year</b>
1	In collaboration with the team, refine the work framework, develop the project and undertake associated research tasks.	25%
2	Scan the data landscape, defining and mapping sources, processing data and creating entity relationship models for multiple data streams.	25%
3	Define and develop the model and algorithms to process and correlate data from multiple sources.	15%
4	Engage in project coordination and writing up of reports.	15%
5	Attend meetings as required and take ownership of tasks.	10%
6	Disseminate knowledge through exchange, presentations and publications.	10%

## Person specification

	Essential	Desirable
<b>Skills and personal competences</b>	<ul style="list-style-type: none"> <li>• Good data analytical and problem-solving skills</li> <li>• Clear written and verbal communication</li> <li>• Professional standard report writing and presentation skills</li> <li>• Able to establish credibility and works cooperatively with others</li> <li>• Able to build strong alliances with colleagues and stakeholders, develop network of contacts and builds trust</li> <li>• Able to plan, coordinate and monitor the progress of work against project milestones and/or agreed standards of work</li> <li>• Flexible approach to problem solving</li> <li>• Self-motivated, enthusiastic</li> <li>• Commitment to observing Equality, Diversity and Inclusion policies at all times</li> <li>• Commitment to maintain confidentiality at all times</li> <li>• Commitment to observing Health &amp; Safety regulations and best practice</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrable commitment to continuing professional development</li> <li>• Relevant and appropriate (for the experience level) list of academic publications</li> <li>• Willingness to travel</li> <li>• <b>Expertise in the application of machine learning</b></li> </ul>
<b>Knowledge and experience</b>	<ul style="list-style-type: none"> <li>• Expertise in data acquisition, data handling, system modelling, and machine learning algorithm development and/or coding</li> <li>• Experience in research in fields related to energy, people and/or mobility</li> <li>• Software coding, e.g. MATLAB, Python</li> <li>• Demonstrable ability to undertake independent research</li> <li>• A positive attitude towards collaboration and multidisciplinary work</li> </ul>	<ul style="list-style-type: none"> <li>• Relevant industry experience (including work placements) in an engineering, science, low carbon vehicles, or energy environment and/or within multidisciplinary teams</li> <li>• Awareness and understanding of commercial drivers</li> <li>• Ability to translate research findings into relevant commercial context</li> <li>• Willingness to undertake appropriate further training and to adopt new procedures as and when required</li> </ul>
<b>Qualifications, certification and training (relevant to role)</b>	<ul style="list-style-type: none"> <li>• Degree in a science/computer science/engineering discipline</li> <li>• PhD or PhD in thesis pending period, in a relevant science/engineering discipline, such as transport/geospatial engineering, computer science, machine learning, sustainable energy technologies, movement and tracking</li> </ul>	<ul style="list-style-type: none"> <li>• Other postgraduate degree in any related fields of transport, geospatial engineering, mobility, low carbon vehicles, computer science, sustainable energy technologies</li> <li>• Other training in quantitative methods of research</li> </ul>

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The University strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women's careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.

## 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 always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.
- Taking ownership** Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.
- Forward thinking** Driven to question the status quo and explore new ideas, supporting the team to "lead the way" in terms of know-how and learning.
- Professional pride** Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.
- Always inclusive** Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

## Key relationships with others

