



**Job Title:** Engineer in GIS and Air Pollution Mapping – Knowledge Transfer Partnership (KTP)

**Grade:** KTP

**Salary:** £25,000 to £28,000 per annum

**Department:** School of Geography, Geology and the Environment

**Hours/Contract:** Full time, fixed term contract for 20 months

**Job Family:** Teaching and Research

**Reference:** 2170

## Role Purpose

A Knowledge Transfer Partnership (KTP) which aims to develop a new air pollution mapping service based on Land Use Regression (LUR) modelling techniques and integrating it with the current mapping capability at EarthSense that uses computational fluid dynamics (CFD). The post-holder will be under the direction of supervisors from the University of Leicester and EarthSense.

## Main Duties and Responsibilities

- Management of a key, strategic project within EarthSense (with support from academic and company supervisors), ensuring that all defined targets and outputs are met within the timeframe.
- Development of a new air pollution mapping service based on Land Use Regression (LUR) modelling techniques and integrating it with the current mapping capability at EarthSense that uses computational fluid dynamics (CFD).
- Facilitate the transfer of knowledge between the University of Leicester and Earthsense Ltd.
- Engagement with other employees and engineers to ensure that the knowledge transferred is properly embedded and exploited.
- Preparation and presentation of progress reports at project team meetings.

## Internal and External Relationships

The post is based at the premises of Earthsense in Leicester, Leicestershire.

The post-holder will be directly supervised by a Company Supervisor on a daily basis and will also receive mentoring from an Academic Supervisor as required by the post. The post-holder will be responsible for ensuring that appropriate information exchange is maintained between the company and academic partner.

## Planning and Organising

The post-holder will be working to a work plan as defined in the grant application proposal with specific tasks and outputs. However, the post-holder will be required to complete a more detailed action plan (e.g.: including a Gantt or Critical Path Network, and risk assessment, for the entire project and a detailed task list for all project stages).

## Qualifications, Knowledge and Experience





### Essential

- Degree subject: First degree in Geographical Geography, Environmental Science or a related subject and an MSc in GIS or a closely related subject\*
- Practical experience of using GIS software\*
- Experience of analysing data using statistical techniques

### Desirable

- Advanced dispersion models
- Computational fluid dynamics (CFD)
- Visualisation (2D and 3D) software
- Experience in automating GIS processes with ArcGIS Model Builder, R, Python or related scripting languages
- Experience of handling large and complex datasets

### Skills, Abilities and Competencies

#### Essential

- An excellent command of computers and specialist GIS software (e.g. ArcGIS, QGIS, PostGIS);
- Competence in using statistical software (e.g. R, STATA and/or SPSS);
- Strong self-motivation and interest in the subject area.
- Excellent team-working skills and the ability to liaise and collaborate with a wide range of people.
- Excellent problem solving skills.
- Ability to communicate precisely and engagingly to different audiences both in writing and verbally.
- Ability to work within a diverse development team comprising of academics and industrial partners.
- Project management and business acumen.
- Ability to work to a deadline.
- Willingness to take ownership of the project in all respects, including financial management, staff training, development of the commercial business case and full project leadership, encompassing management of resources and timing.
- Experience of dealing with senior staff in academia and industry.

***\*Criteria to be used in shortlisting candidates for interview***

### Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

### Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

### VITAL





The University encourages all staff to live our [VITAL values](#) which are:

**Valuing People, Innovators, Together, Accountable, Leaders.**

## Equality and Diversity

We believe that equality, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.

