Masters Dissertation Scheme
Project form

Company / Organisation Name:	West Midlands Fire Service
Team / Department:	Organisational Intelligence
Address:	

Provisional title for project:

Impacts of full fleet electrification in the West Midlands Fire Service.

Short description of the problem that would be addressed by the project:

Fire services internationally are beginning to embrace the electrification of their response and support fleet, and WMFS are exploring this. However, there are certainly several unknown factors at this stage. For example, would there be any impact on our response availability, and what would the likely changes to our estate be? We need to build new fire stations or move existing fire stations? could we calculate the value of positive environmental impact of electrification, and how would this compare with the investment required.

Short description of the data sources that would be used in the project, and how they would be used

AVLS Data – GPS data for each appliance, giving location, speed, time.
Mobilisation data – details of the incident type.
Callsign data – giving status of vehicle by time.

Would any work by the student need to be carried out on site at the Company with the exception of supervisory meetings?

Not necessary, but very welcome both on fire stations, and at HQ.

Any issues of data confidentiality and IPR that would need to be resolved

Some anonymisation required on incident data, but we could potentially do that at this end.

Essential skills

GIS / Data Analysis

Desirable skills

Social science / interview / questionnaire analysis

Preferred degree programmes (if any)

Not specified, but clearly a GIS / data background would be beneficial.

Preferred selection method

Web meeting discussion.

Support and training offered by the company

Support, desk at HQ if required, visits to fire stations, working from fire stations if required.

Financial assistance offered by the company

£500 stipend

Any other comments

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If there are any questions about the 2023 programme, please contact Richard Arnold at richard.arnold@ucl.ac.uk