

# Innovation Placement Projects at Cenex

Lowering emissions through innovation in  
transport and energy infrastructure



## Innovation Placement Projects

### Opportunities

We have several projects available in our Transport and Energy teams regarding the techno-economic analysis of low and zero emission vehicles and infrastructure.

### Location

All projects will be based at our site on Loughborough University Campus.

### Accommodation

As a University town there is plenty of suitable accommodation close to the Cenex office. If you would like any advice on accommodation, we would be happy to help further.

# Project 1: Low Emission Bus Techno-Economic Research

## Description

The student will research (including phone interviews) the costs, technical performance and specifications of low emission buses and their refuelling infrastructure to build a whole life cost model in excel for the different technology operations. The model will also calculate the vehicles emissions and technical performance, such as range, using simple emission and energy consumption factors. The student will review the availability of publicly available bus timetables and routes to determine typical operating characteristics to input into the model and establish where each technology is best suited.

## Learning and Skill Development Opportunities

Technical and economical modelling (in excel), whole life cost analysis, emissions modelling, day-to-day project management.

## Essential Requirements

Strong excel skills, an understanding of low emission vehicle technologies, science/engineering/technical background, ability to work independently, a passion for the environment and decarbonisation.

## Duration

Up to 3 months as a single block or in smaller blocks. Full time or part time. Minimum of 20 full days.

# Project 2: Low Emission Vehicle Comparison Model

## Description

The student, working with an existing Excel comparison tool and redevelopment specification document, will produce a simplified low emission vehicle comparison model with in-built flexibility to accept new vehicle types (e.g. purpose-built taxis, buses) and new technologies (e.g. hydrogen fuel cells, advanced biofuels). Where practical the student will streamline the update process, improve transparency of key assumptions and automate analysis routines. Upon completion of the model development the student will undertake an assessment of the suitability of low emission vehicles across a range of applications then present the updated model and results to the fleet team at Cenex.

## Learning and Skill Development Opportunities

Technical and economical performance of low emission vehicles, whole life cost analysis, vehicle energy consumption and emissions modelling, project management.

## Essential Requirements

Strong excel skills with a good understanding of modelling structure and best practice, a basic understanding of low emission vehicle technologies, technical background, ability to work independently and a passion for environmental issues.

## Duration

Up to 3 months as a single block or in smaller blocks. Full time or part time. Minimum of 20 full days.

For more information regarding any of the projects please use the contact details below.

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