

Research Fellow



ROLE DESCRIPTION

GRADE

Grade 5

LOCATION

Merchiston, Edinburgh

LINE MANAGER


Prof Achille Fonzone

ROLE SUMMARY

The Research Fellow will work on an exciting, impactful, and timely research project seeking to characterise the end-to-end journey experience of autonomous bus passengers. The study, an important step towards ensuring an inclusive usability of automated passenger services, will produce a validation of the tasks required from passengers of the [CAV Forth autonomous buses](#) (AB1) connecting Edinburgh to Fife in Scotland, one of the most advanced implementations of automation in bus services in the world.

The project will be based mainly on an observational study, in which needs, perceptions, and behaviours of AB1 passengers will be recorded in relation to the tasks they have to perform from when they plan a trip to when they get to destination. Focus groups will be organised too, to discuss how passenger experience can be improved. With the input and support of the Principal Investigator and other University academics involved, the Research Fellow will be in charge of designing and organising the project; obtaining ethics clearance; collecting, managing, and analysing the data; preparing the final deliverable; and handling day-to-day management.

The post is within the Transport Research Institute of the School of Computing and Engineering, and the Built Environment, in collaboration with the School of Arts and Creative Industry and the School of Health and Social Care at Edinburgh Napier University. The Transport Research Institute is



ranked among the first 200 academic departments in the field of transportation by The Shanghai Rankings.

The Research Fellow will be part of an exciting research endeavour in the cutting-edge field of autonomous vehicles. They will have the chance to be involved in the globally leading CAV Forth project, with the opportunity to create real-world impact. Joining our vibrant research environment, they will work alongside an enthusiastic and interdisciplinary team.

MAIN DUTIES AND RESPONSIBILITIES

Plan, organise, undertake, and disseminate research to achieve the objectives of the “CAV Forth Task Analysis” project. This will entail both independent research work and working in collaboration with the other involved researchers and project partners. The successful candidate will:

- Formulate the research plan, develop protocols and tools for the observational study and the focus groups, receive ethics clearance. The research will aim to validate a recently completed extensive literature review on bus passenger tasks .
- Lead and participate in the data collection and manage the data, supervise the activities of other data collectors, ensure the implementation of state-of-the art ethics and health & safety standards. The data collection will entail accompany bus passengers on their journey on the AB1 service.
- Apply appropriate qualitative analysis (and statistical tools) to derive meaningful insights from the collected data.
- Author the project’s final deliverables and contribute to the dissemination of the results to the scientific community.
- Handle day-to-day management of the project, including meetings with other project partners, and meetings of the Edinburgh Napier research team.

PLANNING & ORGANISING

- Organise own time in a flexible way so that the project activities can be completed on time, taking in due account the development of the CAV Forth project. Regularly attend the premises of the University.
- Be proactive and prompt in interacting with all the subjects involved in the project to share ideas, plans, and progress; identify and monitor risks; update the work plan as required.
- Work with the Principal Investigator to define, plan, monitor and update a programme of relevant research work, to produce the expected outcomes within the timescale of the project and according to high ethical, and health and safety standards.
- Deal with external providers and the University administration to procure materials and services for the project.
- Organise and monitor the progress of the data collection (observational study, focus groups and workshops), including the activities of other data collectors.
- Manage personal data in accordance with UK regulations and best practice.
- Take the lead of regular project meetings to report and review progress, and to generate new ideas and lines of research.
- Contribute to identify future development of the group activities to enhance end-to-end journey experience of automated passenger services.

PROBLEM SOLVING

- Be competent, resourceful, flexible in the design of the research approach and tools.

- Consider uncertainties, and address delays, unexpected events and clashing deadlines in project plans and personal workload.
- Collaborate with the participant recruitment provider, Stagecoach, and data collectors to streamline and dynamically update the procedures of the observational study.

DECISION MAKING

- Manage day-to-day workload, making independent decisions about immediate priorities to meet short- and medium-term targets agreed with the Principal Investigator.
- Assess and choose appropriate external providers.

PERSON SPECIFICATION

ESSENTIAL

DESIRABLE

EDUCATION / QUALIFICATIONS

- A PhD in travel behaviour, human factors (with a focus on human-machine interaction), experimental psychology, behavioural science. ✓

SKILLS / EXPERIENCE

- Track record of qualitative and quantitative research on human behaviour, possibly on task analysis. ✓
- Track record of successful research planning and management (including for dissertation and theses). ✓
- Understanding of the ethics implications of research with human subjects. ✓
- Knowledge of the public transport sector. ✓
- Experience with user experience research. ✓
- Experience with customer satisfaction measurement and analysis. ✓
- Some experience with survey administration and analysis. ✓
- Track record of peer-reviewed journal and conference papers in a relevant area. ✓
- Demonstrable strong interpersonal skills. ✓
- Excellent communication skills - oral, writing and presentation of data. ✓
- Capable of working independently, exercising a high degree of initiative, and demonstrating a pro-active and flexible approach to work. ✓
- Ability to work in team, and under pressure to meet agreed milestones. ✓
- Good timekeeping and time-management, with associated effective prioritisation of tasks. ✓
- Ability to contribute ideas and initiate new ways of working. ✓
- Ability to be adaptive and accept new ideas; willingness to approach new challenges and develop new skills. ✓