

# UNIVERSITY OF GLASGOW

## JOB DESCRIPTION

Please find detailed below an example to be used as the basis for writing job descriptions relative to departmental requirements stemming from University objectives. Everything in lower case serves as an example which may be amended to your specific needs.

**DEPARTMENT OF** Computing Science

**JOB TITLE:** Research Fellow

**LINE MANAGED BY / RESPONSIBLE TO:** Stephen Brewster

**ACCOUNTABLE TO:** Muffy Calder, HOD

## MISSION STATEMENT:

The Department's objectives are to be a globally recognised centre for vibrant and innovative research, and to produce world-class Honours graduates and postgraduates, in Computing Science. It aims to provide the necessary resources to meet these objectives: a balanced academic staff, modern IT infrastructure and excellent administrative support, within a good working environment for all staff.

## 1. JOB PURPOSE

Research Fellow on EPSRC MultVis II project: Multimodal Tools to Allow Blind People to Create and Manipulate Visualisations. The fellow will investigate and develop a range of novel haptic and audio techniques to allow blind people to create and manipulate visualisations.

## 2. KEY TASKS

- 2.1 Do high quality novel research investigating techniques to allow blind people to interactively create visualisations themselves;
- 2.2 Develop a natural, two-handed interaction with the visualisations;
- 2.3 Create a mixed reality paper and haptic visualisation tool;
- 2.4 Develop external memory and navigation aids to help people discover, mark and rediscover important data features;
- 2.5 Investigate collaborative visualisation tools to allow users to work together.
- 2.6 Develop s/w, review literature and experimentally evaluate tools developed
- 2.7 Develop demonstrator applications. The demonstrator applications will be based on the experimental prototypes used throughout the project. However, they will be brought up-to-date to include all of the results and principles developed. They will be usable by teachers and blind people to visualise information. We will carry out

classroom-based studies to ensure that the prototypes are effective in the context of use for which they were designed.

- 2.8 Write up the results of the research for high quality conferences and journals. Present the work at international conferences.
- 2.9 Supervise student projects (honours and masters levels) and co-supervise the PhD student funded on the project.
- 2.10 Prepare documentation with respect to the project.

### 3 OBJECTIVES

- 3.1 Understand the problems blind people face when trying to visualise information in their everyday lives;
- 3.2 Construct and evaluate novel tools to solve these problems based on one and two handed haptic displays.