



## 1 Advertisement

**Post Title:** Research Assistant in Informatics

**School/department:** Engineering and Informatics/Informatics

**Hours:** Part time hours considered up to a maximum of 33 hours per week

Requests for flexible working options will be considered (subject to business need).

**Contract:** fixed term until 7 April 2023

**Reference:** 7456

**Salary:** starting at £30,497 to £34,304, per annum, pro rata

**Placed on:** 13 December 2021.

**Closing date:** 20 January 2022. Applications must be received by midnight of the closing date.

**Expected Interview date:** w/c 31 January 2022

**Expected start date:** As soon as possible

We are recruiting a Research Assistant (RA) to support the experimental studies conducted in the Representational Systems Laboratory in the Department of Informatics. The studies will include cognitive science/psychology experiments on how people's learning and problem solving when doing information rich tasks with novel diagrammatic representations and interactive graphical user interfaces. The RA's primary role will be to organize and run the experiments, and to manage the collation and preparation of the collected data. The RA will also contribute to the design of the experiments, the analysis of the data and preparation of presentations and publications.

The role is primarily work on an innovative project that aims to develop and evaluate interactive visualization tools for a project entitled *Cybersecurity visualization: collaborative graphical tools for security policies*. The project is a collaboration between the University of Sussex and Qatar University, which is creating novel interactive graphical software applications, which the RA will evaluate with users. In addition, the RA will support other projects on people's skills in using diverse representations and on the assessment of new methods to assess people's competence based on micro-behaviours in transcription tasks.

Applicants must have a bachelor's or master's degree that include: (a) training on research methods and statistics for experiments in human behaviour; (b) at least one or more courses on cognitive psychology, cognitive science, human computer interaction or ergonomics.

You will be based at the University of Sussex, work under the supervision of Prof Peter Cheng, and be a member of the Representational Systems (RepSys) Laboratory within the Creative Technology Research Group. Locally you will work closely with members of the RepSys Lab, and at a distance you will collaborate with the team members in Qatar University. See here for the RepSys lab web pages:

<http://users.sussex.ac.uk/~peterch/>

When applying, please fill in the application form and attach a full CV. Use the space for additional information to explain how your skills are suited to the project, making reference to the essential and desirable sets of criteria outlined in the Job Description.

Please contact Professor Peter Cheng, [p.c.h.cheng@sussex.ac.uk](mailto:p.c.h.cheng@sussex.ac.uk) for informal enquiries.

The University is committed to equality and valuing diversity, and applications are

particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex.

Please note that this position may be subject to [ATAS clearance](#) if you require visa sponsorship.

For full details and how to apply see our [vacancies page](#)

*The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds.*

## 2. The School / Division

Please find further information regarding the department and school at <http://www.sussex.ac.uk/informatics/> and <http://www.sussex.ac.uk/ei/>.

## 3. Job Description

Job Description for the post of: Research Assistant in Cognitive Science

**Department:** Informatics

**Section/Unit/School:** Engineering and Informatics

**Location:** Chichester I

**Grade:** 6

**Responsible to:** Professor Peter Cheng

**Responsible for:**

### Job description

The primary responsibility of the Research Assistant post is to support the empirical studies conducted in the Representational Systems lab. The studies include experiments on the cognitive abilities of humans in complex task environments and evaluations of interactive graphical computer interfaces. The role involves the organizing and running of experiments, the management, collation and preparation of the experimental data. The RA will also contribute to the design of the experiments, the analysis of the data and the preparation of presentations and publications. The post is principally associated with the project *Cybersecurity visualization: collaborative graphical tools for security policies*, which is a collaboration between the University of Sussex and Qatar University. That project's purpose is to design systems to enable effective communication and collaboration between organization managers, who devise access control policies, and IT specialists, who implement the policies digitally. The RA will evaluate the novel interactive information visualizations by running tests with users who will explore access control problems. In addition, the research assistant will support other projects on (a) people's skills in using diverse representations and (b) assessment of people's competence based on the capture and analysis of the micro-behaviours in transcription tasks.

#### **4. Person Specification**

##### **PRINCIPAL ACCOUNTABILITIES**

1. To observe and assist with individual and/or collaborative research activity and contribute to the production of research outputs for publications.

##### **KEY RESPONSIBILITIES**

###### **1. Research, Scholarship & Enterprise**

- 1.1 With support from the Principal Investigator, develop research objectives and contribute to the planning of the research project
- 1.2 Conduct research activity under supervision of the Principal Investigator, and in collaboration with others.
- 1.3 Assist with the analysis and interpretation of research findings and contribute to discussions on conclusions and outcomes.
- 1.4 Contribute to the writing of reports and other dissemination activities under the supervision of experienced researchers.
- 1.5 Contribute to the preparation of research ethics and data management strategies, under guidance from the Principal Investigator to ensure compliance with ethical approval and data protection legislation.
- 1.6 Present information on research progress and outcomes to relevant bodies under the supervision of the Principal Investigator.
- 1.7 Plan own day-to-day research activity within the framework of the agreed programme.
- 1.8 Learn about the publication process and contribute to research outputs for publication in monographs or recognised high-quality journals, or performance/exhibition, as appropriate.
- 1.9 Continually update knowledge and understanding in field or specialism, and engage in professional development.

###### **2. Teaching & Student Support**

- 2.1 Assist in the supervision of student projects and provide guidance to those assisting in the research.

### **3. Contribution to School & University**

- 3.1 Attend and contribute to relevant School and project meetings.
- 3.2 Undertake additional duties, as required by the Principal Investigator and/or Head of School.

### **4. Role-specific duties**

- 4.1 Implement, run and manage cognitive experimental studies with human participants.
- 4.2 Collation, preparation and basic analysis of experimental data.
- 4.3 Collaborate with members of the RepSys Lab and across the wider project teams.

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or level of responsibility entailed.

### **INDICATIVE PERFORMANCE CRITERIA**

- Under the supervision of the Principal Investigator, conduct experiments/research to assist with project aims, with emphasis on training.
- Undertake research by preparing, setting up, conducting and recording the outcomes.
- Manage and analyse data, and prepare written reports and summaries.
- Maintain and store project files and equipment as per health and safety and data regulations.
- As part of career development, contribute to the preparation of journal articles based on the research with support from the Principal Investigator.

## **PERSON SPECIFICATION**

### **ESSENTIAL CRITERIA**

1. Normally educated to degree level, or other equivalent qualification, or relevant level of experience, as appropriate to the discipline (see role-specific criteria below).
2. Good presentation skills, with the ability to communicate effectively, both orally and in writing, with colleagues and external audiences.
3. Ability to work independently (under supervision by the Principal Investigator), and as part of a team.
4. Ability to exercise a degree of innovation and creative problem-solving.
5. Excellent organisational and administrative skills.
6. Ability to prioritise and meet deadlines.
7. Excellent IT skills.
8. Ability to follow guidance of team leaders.

### **ESSENTIAL ROLE-SPECIFIC CRITERIA**

1. Experience of conducting cognitive or HCI experiments with human participants Including: implementation and set up, participant recruitment and managing, running trials, collation of data, analysis of data, and reporting of results.
2. Statistical analysis of experimental data using SPSS, R, Excel or similar.
3. Interest in cognitive science, cognitive psychology, human computer interaction or closely related subjects.
4. Ability to work collaboratively.
5. Good social skills.

### **DESIRABLE CRITERIA**

1. Experience in the design of cognitive experiments with human participants.
2. Experience of online survey authoring and delivery platforms to write questionnaires, run trials, coordinate participants and manage data (e.g., Qualtrics, Survey Monkey).

3. Experience of online participant recruitment systems (e.g., Prolific, Amazon Mechanical Turk).
4. Experience of making research ethics applications.
5. Knowledge of computer access control systems and practice.
6. Willingness to travel occasionally, with overnight stays, within the UK and internationally.