



## Role Description

<b>Faculty/Service:</b>	Faculty of Engineering and Environment
<b>Department:</b>	Computer and Information Sciences
<b>Role Title:</b>	Research Fellow (Sonification Design and Aesthetics)
<b>Grade:</b>	6
<b>Category:</b>	Research
<b>Role Purpose:</b>	To conduct quantitative and qualitative research into sonification design, listening, and aesthetics as required by the University's collaborative research project RADICAL, 'A Radical New Interdisciplinary Space for Sonification', which is funded by a Leverhulme Trust Research Project Grant (RPG-2020-113)
<b>Reports to:</b>	Dr Paul Vickers
<b>DBS Required:</b>	Disclosure and Barring Service Check Not Required

### General Duties and Responsibilities:

### Specific Duties and Responsibilities:

- Lead and collaborate on the design and implementation of data sonifications and sonification systems, with a particular emphasis on 3D spatialised audio for the IKO icosahedral loudspeaker.
- Lead and contribute to the development of theory in sonification design and sonification aesthetics.
- Lead and contribute to the design and conduct of observational studies of sonification listening.
- Lead and collaborate in the dissemination of project results through journal articles and conference presentations and public-facing media.
- Lead and contribute to the organisation and delivery of events run by the project as well as activities of the Northumbria Social Computing (NorSC) group and the wider computing research team at Northumbria.
- Work closely with project partners at Newcastle University in the collaborative design of new observational techniques for understanding sonification listening and aesthetics through an ethnographic Research through Design approach.
- Contribute to the collection and analysis of data from the project's studies and platforms
- Collaborate closely with project partners and other researchers to deliver findings and the completion of studies in a timely manner.

This Role Description is not intended to be an exhaustive list of duties and will be subject to periodic review by the University Executive and/or relevant within the Faculty/Service in discussion with the role-holder.



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## Person Specification

Specific Knowledge			
Criteria	Weight	A	I
Strong working knowledge of some common programming environments and platforms that are used for sonification, sonic interaction, or digital audio (for example, Python, Pure Data, Max/MSP, SuperCollider, MATLAB, etc.).	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Familiarity with (or demonstrable ability to become familiar with) methods and techniques suitable for research in the context of data sonification and listening.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Familiarity with (or demonstrable ability to become familiar with) methods and techniques in ethnography and Research through Design.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Familiarity with research in the context of spatialised audio.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Familiarity with research in the context of sonification listening and aesthetics.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Familiarity with funded research projects and their administration.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Skills, Abilities & Behaviours			
Criteria	Weight	A	I
Ability to work in cross disciplinary settings.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Demonstrable ability to contribute towards designing, organising and running of experiments, interviews, focus groups and related participatory activities with research partners.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Excellent interpersonal and communication skills.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Proven ability to organise and prioritise tasks and successful working to deadlines.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ability to administrate aspects of funded research projects.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Available for occasional weekend work as project requires.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Available for occasional overseas conference travel as project requires.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>
.	Essential	<input type="checkbox"/>	<input type="checkbox"/>

Experience			
Criteria	Weight	A	I
Track record of publishing in high quality conferences or journals.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Experience of working on research projects, including planning and conducting studies and leading on the analysis of collected data.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Experience of working within multi-disciplinary project teams or research labs/groups.	Desirable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>



	Essential	<input type="checkbox"/>	<input type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>

Education & Training			
Criteria	Weight	A	I
PhD (complete or very close to submission) in a relevant discipline or relevant equivalent experience.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Master's and/or good honours degree (merit or 2:1 or above) in computer science or a related discipline.	Essential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>
	Essential	<input type="checkbox"/>	<input type="checkbox"/>

**Legend:**    A = Application                      I = Interview