

RESEARCH ASSOCIATE (ENDURE) (Fixed-term for 8 months)

Job Ref: REQ17578

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Collaborative partnership summary

ENabling Designers to Understand mateRIal changE (ENDURE), is an eight month collaborative project between Loughborough and Newcastle Universities, Granta Design and SCIN.

Loughborough Design School (www.lboro.ac.uk/lds), which is located in a £21million state-of-the-art building, brings together teams of staff with world leading reputations for their research, teaching and wider stakeholder collaborations. We use our design expertise and knowledge to work with UK and international organisations to develop new concepts and ideas which have a real impact on the world around us (<http://www.lboro.ac.uk/departments/design-school/research/>).

Newcastle University School of Civil Engineering & Geosciences (www.ncl.ac.uk/ceg/about/) carries out world class research focusing on the challenges of science and engineering at the interface between technological, human and natural systems. As seen in this project, we collaborate widely across disciplinary boundaries to address profound societal challenges (www.ncl.ac.uk/research/themes/).

Granta Design (www.grantadesign.com) is the market leader in materials information management software – Granta CES is the standard tool for materials selection for both education and the design industry. Granta Design currently works with over 300 global leaders including Rolls Royce, Nasa, Cook Medical and Boeing and support over 1000 Educational Institutions with CES EduPack.

SCIN (<http://scin.co.uk/index.htm>) is a material consultancy and sourcing service for architects and designers based in Clerkenwell, the heart of the London's creative industries. They curate the largest independent materials library in the UK and have provided consultancy services to over 60 universities and 300 architectural practices, design studios and artists.

This post will be located at the Design School, Loughborough University; however, the successful candidate could work remotely. It is anticipated that time will be spent working on location with our industrial collaborators in Cambridge and London, and at Newcastle University.

ENDURE Project Description

It is increasingly recognized by government and industry leaders that unsustainable modes of production and consumption comprised of virgin resource extraction, deliberately curtailed product lifespans and premature disposal of goods, must be challenged. To enable the transition towards a 'circular economy' in which materials are maintained in a 'closed loop' to extract maximum utility and value, it is vital that novice and established designers' knowledge and literacy of material change (wear, ageing, damage etc.) is increased.

Existing material selection resources (libraries, catalogues, databases) typically neglect sensorial qualities in favour of more conventional physical or mechanical engineering properties. Aesthetic or tactile user responses to aged materials are, however, fundamental to enabling designers to select

materials which meet users' expectations whilst delivering optimal lifetimes for products, interior and architectural applications.

The aim of the ENDURE project is to leverage fundamental research carried out by Loughborough and Newcastle academics to develop plug-in resources for Granta Design's CES Edupack materials specification software, and SCIN's physical and online materials library, to increase designers' knowledge and literacy of how materials change with use and environmental exposure, and how people respond to those changes.

Job Description

Job Grade: Specialist & Supporting Academic Grade 6

Job Purpose

The Research Associate will be responsible for generating, prototyping and evaluating concepts for materials resources. These may take the form of physical materials sample displays and/or interfaces for software plug-ins, CAD and/or artificial reality (AR) interfaces.

Job Duties and Responsibilities:

- To become familiar with Granta Design and SCIN's materials resources whilst developing and maintaining awareness of other existing materials databases, libraries and specification tools.
- To utilise appropriate visualisation and prototyping techniques to generate and present concepts for new materials resources drawing on the knowledge and expertise of the project team.
- To develop and administer appropriate instruments, especially interviews and questionnaires, for user evaluation of conceptual materials resources developed.
- To analyse data from potential users and report on the findings.
- To liaise with partner organisations as the project requires.
- To undertake relevant and appropriate training provided by partner institutions.
- To help ensure safety, data protection and ethical procedures are followed throughout the project.
- To work with the rest of the project team to deliver a successful project.

General, technical

- To formulate detailed plans for the project based on broad guidance from the project team.
- To feed back to the project team on progress, to make recommendations for next steps and to prepare interim and final project reports.
- To collaborate with colleagues in Newcastle University, Granta Design and SCIN.
- To collaborate with relevant individuals in other Higher Education Institutions and industry.
- To support the project team by enhancing relationships with existing collaborators and by assisting the establishment of relationships with new collaborators.
- To contribute to project promotion and public engagement events.

General and administrative

- To engage in training programmes in the University (e.g. through Staff Development) and collaborators' organisations which are consistent with your needs and aspirations and those of the project team.
- To carry out specific other duties as may be reasonably requested by the project leaders and that are commensurate with the nature and grade of the post.

Points to Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity.

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which are available at: <http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html>.

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>). In addition, the University is supportive, where operational needs allow, of flexible working arrangements.

We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>.

Reports to: Debra Lilley (LDS)

Person Specification

Your application will be reviewed with respect to meeting the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 - Application
- 2 - Portfolio
- 3 - Interview

Essential Criteria

Area	Criteria	Stage
Education and Qualifications	A Master's degree or relevant industrial experience in a design discipline.	1
Experience	Experience of utilising a range of visualisation and prototyping techniques to generate, present and evaluate design concepts.	1,2,3
	Experience of using qualitative data collection methods, including questionnaires and interviews, for user research.	1,3
	Experience of analysing qualitative data to extract findings.	1,3
Skills and abilities	Visualisation and prototyping skills.	1,2,3
	Excellent written and oral communication skills.	1,3
	Self-motivated with ability to meet deadlines.	1
	Ability to work independently and as part of a team.	1
	Excellent interpersonal and organisational skills.	1
	Good analytical skills.	1
	Good IT skills.	1
Training	Willingness to undertake appropriate further training and to adopt new procedures as and when required.	1
Other	Commitment to observing the University's Equal Opportunities Policy at all times.	1,3
	Willingness to travel.	3

Desirable Criteria

Area	Criteria	Stage
Education and Qualifications	Holds (or close to completing) a PhD in an area closely related to materials selection resources, material ageing or product longevity.	1,3
Experience	Experience in the development of resources, particularly for materials specification, for designers.	1,3
Skills and abilities	Expertise in the use of artificial reality (AR) prototyping techniques.	1,2,3
	Expertise in the use of CAD prototyping techniques.	1,2,3
	Expertise in photography and/or digital image manipulation.	1,2,3
Other	An interest in pursuing research in materials design, ageing or change.	1,3

Conditions of Service

The position is full time and fixed term for 8 months. Salary will be on Specialist & Supporting Academic Grade 6, £29,301 to £32,004 per annum, at a starting salary to be confirmed on offer of appointment. Subject to annual pay award.

The appointment will be subject to the University's normal Terms and Conditions of Employment for Academic and Related staff/Operational and Administrative staff, details of which can be found [here](#).

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Informal Enquiries

Informal enquiries should be made to Debra Lilley, +44 (0)1509 222660, d.lilley@lboro.ac.uk.

Applications

The closing date for receipt of applications is 21 July 2017

Interviews will be held on 3 August 2017