Research Technician in Immersive Technologies

Electronic Engineering

Closing date: 6 November 2018
Interview date: To be confirmed
Vacancy reference: 7090
INTRODUCTION

Creative Media Labs: Innovation in Screen Storytelling in the Age of Interactivity and Immersion is a major £15m project, led by the Department of Electronic Engineering at the University of York, in partnership with Screen Yorkshire and the British Film Institute, that will establish the Yorkshire and Humber screen industries cluster as the UK centre of excellence in immersive and interactive digital storytelling.

The Department of Electronic Engineering AudioLab are seeking to appoint a Research Technician in Immersive Technologies to support projects co-created between academic researchers and our leading creative screen industries partners, where digital storytelling and immersive narrative are a key feature.

This full-time position is for a period of 4 years as part of the Creative Media Labs Creative Industries Cluster R&D Partnership project, and will support the technical creation, implementation, delivery and dissemination of immersive storytelling projects in collaboration with our leading screen industries partners.
Main purpose of the role
To manage the day-to-day organisation and operation of a research/teaching laboratory and to support research activities; to provide guidance, training and theoretical/scientific/technical support to project students, postgraduates, academics and research staff within and external to the University

Key responsibilities
(Role holders will be required to undertake some or all of the duties below)

- Undertake experimental work as required, and manage work with limited input from principal investigators (PIs) and/or supervisors
- Undertake and/or collaborate in the development and implementation of innovative and novel techniques; design and conduct experiments or methods to test hypotheses/theories, synthesise results and communicate findings
- Provide technical and scientific training, guidance and support to undergraduate and postgraduate students, project students, project team members, postgraduates and academic/industrial collaborators
- Support the Laboratory Manager with the day-to-day operation and housekeeping of the laboratory, associated machines and equipment; ensure compliance with laboratory health & safety procedures and best practice
- Be responsible for the maintenance and operation of complex laboratory machines and equipment, and provide operational training, instruction and supervision to students and researchers both within and external to the University
- Ensure that legislative and regulatory safety testing of all laboratory apparatus and equipment is carried out and relevant documentation is completed
- Supervise and train laboratory technicians
- Maintain data sets in an appropriate manner to ensure data integrity and accessibility; present research findings at review meetings, and take part in debates and discussions to inform on scientific aspects of the research projects
- Maintain up-to-date knowledge of the field; investigate and propose additions and improvements to services; help keep the laboratory up-to-date with best working practices and new scientific protocols
# PERSON SPECIFICATION

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PhD in Music Technology, Electronic Engineering, Computer Science or equivalent, or equivalent experience</td>
</tr>
</tbody>
</table>

## Knowledge

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Specific knowledge of the operation of an immersive technology research lab or similar facility; awareness of health and safety issues</td>
</tr>
<tr>
<td></td>
<td>Thorough, up-to-date theoretical and practical knowledge of immersive technologies and techniques in particular in the areas of spatial audio, virtual and augmented reality applications</td>
</tr>
<tr>
<td></td>
<td>Knowledge of the interaction between academia and research-led industrial companies</td>
</tr>
<tr>
<td></td>
<td>Knowledge and understanding of research methodologies relevant to science, engineering and the creative industries</td>
</tr>
</tbody>
</table>

## Skills, abilities and competencies

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Skills, abilities and competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proven track record in the application of the advanced technical skills associated with immersive technology projects and related facilities to support such research and development</td>
</tr>
<tr>
<td></td>
<td>Proven ability to work independently and creatively, using problem solving and analytical skills</td>
</tr>
<tr>
<td></td>
<td>Excellent multimedia/IT skills covering a wide range of software specific to capturing, authoring, editing and rendering of immersive content</td>
</tr>
<tr>
<td></td>
<td>A high standard of written and verbal communication skills in English</td>
</tr>
<tr>
<td></td>
<td>Excellent time-management skills; ability to prioritise own work in response to deadlines</td>
</tr>
<tr>
<td></td>
<td>Ability to present complex ideas in a clear and concise manner and communicate with a wide range of people, such as colleagues, students and non-scientists</td>
</tr>
<tr>
<td></td>
<td>Proactive in determining customer requirements</td>
</tr>
<tr>
<td></td>
<td>Experience of coding/scripting languages for development of immersive experience content and the technology that underpins its creation, e.g. C/C++/C#, Unity, MATLAB, MAX/MSP, Pure Data, Javascript, Etc.</td>
</tr>
</tbody>
</table>

## Experience

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relevant lab based research experience in an immersive technologies related research group</td>
</tr>
<tr>
<td></td>
<td>Experience of working within an academic research environment</td>
</tr>
<tr>
<td></td>
<td>Experience of training others (eg, students) in related techniques</td>
</tr>
</tbody>
</table>

## Personal attributes

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Personal attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highly self-motivated; willing to learn new techniques and keep abreast of developments in own field</td>
</tr>
<tr>
<td></td>
<td>Flexible attitude towards work (tasks and hours will depend on the state of the project)</td>
</tr>
<tr>
<td></td>
<td>Disciplined with regard to confidentiality and security at all times</td>
</tr>
</tbody>
</table>
The Department of Electronic Engineering at York undertakes world-leading research with groups working in multidisciplinary areas including: electronic and computer engineering, specifically, bio-inspired adaptive architectures and systems; applied electromagnetics, signal processing and coding for communications; nano-scale device fabrication and analysis; autonomous and robotic systems and electronics for healthcare; audio and music technology. Our key research areas fit into three overarching groups:

- Communication Technologies
- Intelligent Systems and Nano-science
- Engineering Education and Management

The successful applicant will be working as part of the Creative Media Labs project, that originates from the AudioLab, which comes under the remit of the Communication Technologies Group.

In the 2014 REF 87% of our research outputs were judged world-leading or internationally excellent. Our research groups work with industry and universities across the world while providing a friendly and supportive environment for staff and students.

Our Department has a long-standing reputation for high-quality teaching and learning and highly employable graduates. Our MEng and BEng undergraduate programmes in a number of subject areas are fully accredited by the IET (Institution of Engineering and Technology) at CEng (Chartered Engineer) level: [http://www.york.ac.uk/electronics/undergraduate/](http://www.york.ac.uk/electronics/undergraduate/).

The Department is consistently highly ranked for Electronic Engineering in the annual National Student Survey and we are ranked 1st in the UK for graduate employment within one year of leaving the university (Longitudinal Education Outcomes (LEO) 2017).

Within Electronic Engineering our student body consists of approx. 400 undergraduate students and 200 postgraduate students. Our taught postgraduate students undertake one of our suite of MSc programmes, covering the latest technologies and skills in important industry sectors. We have a vibrant community of postgraduate research students enrolled on our PhD programme bringing our total student cohort to around 600 students.

The Department has 40 academic staff (including part-time and job share), research staff and a team of support staff, providing administrative and technical assistance in the department.
The Department continues to hold the Bronze Award from Athena SWAN which was won in 2013 in recognition of our commitment to equality. We are proud to foster a supportive culture that helps staff and students reach their full potential and we embrace equality, diversity and inclusion as well as the values of the Athena Swan Charter in all our departmental activities.

The Department of Electronic Engineering operates a family friendly policy and is committed to gender equality and diversity. The Department recognises that a flexible approach to working is vitally important in the recruitment and retention of staff who have family commitments. The Department offers flexible working hours to all staff and will actively support job sharing and career break requests where it is reasonable and practical to do so and where operational needs will not be adversely affected.

The Department provides support for all categories of staff in their applications for promotion, role reviews, awards and prizes and rewarding excellence nominations. The Department strives to address gender inequalities and ensure that there is a culture that supports equality and encourages better representation throughout the department. Support for women at all stages of their career is recognised as being extremely important. Further details of the Department can be found on its website: https://www.york.ac.uk/electronic-engineering/

Creative Media Labs: Innovation in Screen Storytelling in the Age of Interactivity and Immersion is a major £15m project, led by the University of York, in partnership with Screen Yorkshire and the British Film Institute, that will establish the Yorkshire and Humber screen industries cluster as the UK centre of excellence in immersive and interactive digital storytelling. The project director is Professor Damian Murphy, from the Department of Electronic Engineering AudioLab, and University Research Theme Champion for Creativity, in collaboration with Professor Andrew Higson from the Department of Theatre Film and Television, and Professor Marian Ursu, also from the Department of Theatre Film and Television, and Co-Director of Digital Creativity Labs.

Creative Media Labs will develop partnerships with film, TV and games companies from across our region, as well as nationally and internationally, to co-create leading programmes of activity in digital storytelling with researchers from the University of York and our other connected Yorkshire Universities.
The University

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2018 it is the home of more than 17,000 students across more than 30 academic departments and research centres. Since opening over fifty years ago, we have become one of the world’s leading universities and a member of the prestigious Russell Group.

We are consistently recognised as one of the leading Higher Education Institutes and are ranked 16th in the Times & Sunday Times league table (2017). The University of York has won six Times Higher Education (THE) Awards and five Queen’s Anniversary Prizes.

The University is proud of its association with Athena SWAN, holding 12 awards in support of gender equality, representation and success for all, with gold awards for Chemistry and Biology and a University-wide bronze award.

Of 154 universities that took part in the Research Excellence Framework (REF) in 2014, The University of York ranked 14th overall and 10th for the impact of our research. The University is consistently in the top ten UK research universities and attracts over £60m a year of funding from research alone.

Our vision is to make the University of York a world leader in the creation of knowledge through fundamental and applied research, the sharing of knowledge by teaching students from varied backgrounds and the application of knowledge for the health, prosperity and well-being of people and society.
Attractive workplace

Centred around the picturesque village of Heslington on the edge of the city of York, our colleges are set in an attractive landscaped campus. York enjoys a safe, friendly atmosphere with facilities including bars, shops, theatres and concert halls all within easy walking distance.

The University has undergone an unprecedented period of expansion and renewal since 2000. We have invested in twenty new buildings on the original campus and have completed the first and second phases of a £750m campus expansion. Our investment in new colleges, teaching and learning spaces, laboratories, research facilities and a new sports village mean there has never been a better time to join us.

During this period of change we've worked hard to retain our friendly, informal and collegiate atmosphere, which is important to our core values of inclusivity and interdisciplinarity.

We have a thriving international community and are committed to providing staff moving to York with as much support as possible through our Relocation Package and Welcome Officers.

The University is committed to promoting a diverse and inclusive community - a place where we can all be ourselves and succeed on merit. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds.

For further information please visit our employee benefit pages.
THE CITY AND THE REGION

The City of York
Internationally acclaimed for its rich heritage and historic architecture, York’s bustling streets are filled with visitors from all over the world. Within its medieval walls you will find the iconic gothic Minster, Clifford’s Tower and the Shambles - just a few of the many attractions.

But York isn’t just a great place to visit - it’s also a great place to live and work. While nourishing a vibrant cosmopolitan atmosphere, York still maintains the friendly sense of community unique to a small city.

Visit [www.visityork.org](http://www.visityork.org) for more information on the city of York

Shopping, culture and entertainment
York boasts specialist and unique boutiques but also all the high street stores on its busy shopping streets. Alongside them you will find cinemas, theatres, an opera house, art galleries, a vast range of restaurants, live music venues and clubs. York is particularly renowned for its multitude of pubs and bars, from the modern to the medieval.

Housing and schools
Whether you choose to live close to the city, in one of the surrounding villages or further afield, you will find a wide range of housing within comfortable distance of York and the University. For families, the area has a range of excellent schools both in the state and independent sector.

Great location
York is one of Britain’s best-connected cities. Halfway between London and Edinburgh on the East Coast mainline, on intercity trains you can reach London King’s Cross in less than two hours and Edinburgh in two and a half hours. York is also well served by road links, and it is easily accessible from the A1, M1 and the M62.

For those travelling from overseas, Manchester Airport is two hours away and Heathrow Airport just three and a half. Flights from nearby Leeds Bradford Airport provide easy access to mainland Europe. By Eurostar from London St Pancras, Paris is just over six hours away.

Yorkshire
The Lonely Planet guide recently declared Yorkshire the third best region in the world to visit. There is something to cater to every taste, whether it be the rugged landscapes of the Moors or the Dales, the picturesque seaside towns of Scarborough and Robin Hoods Bay, the gothic architecture of Whitby or the vibrancy of cosmopolitan Leeds.
Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 7090
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 6 November 2018

What will I need?

We will ask you for details of:

- your employment history
- relevant qualifications
- two referees

You need to be ready to show us how you meet the requirements of the job, either in a written statement and/or by answering questions.

Help and assistance

Direct any informal queries to the Director of Creative Media Labs, Professor Damian Murphy via email: damian.murphy@york.ac.uk

If you have any questions about your application, contact the HR Services team:

recruitment@york.ac.uk +44 (0)1904 324835