One year fully funded industrial MPhil available from the University of Leicester – Departments of Engineering and Informatics, to undertake applied research and development on behalf of a Small and Medium Enterprise (SME) in Leicester & Leicestershire.

The MPhil research will help the company involved to design a prototype room scale VR experience to assess feasibility, routes to market and value proposition in setting up a multiplayer artistic VR venue. The industrial MPhil is funded by the Leicester Innovation Hub through European Regional Development Fund monies, and the sponsoring SME.

“Design a prototype room scale VR experience to assess feasibility, routes to market and value proposition in setting up a multiplayer artistic VR venue (Play Room)”

Project Ref: LIH116

Background
Metro Boulot Dodo (MBD) Ltd - the partner in this exciting 12 month R&D project - is an award winning arts related company. In the last twenty years, the company has created a number of immersive theatre experiences and trails, and is an Arts Council England National Portfolio Organisation. The Mphil student will support the company deepening the integration of programming within their projects, pushing areas of social gaming, haptics, as well as in person tracking and hand/object tracking. The business proposition proposes multiple pay-to-play social experiences within a single venue.

The Project
Through this R&D project, MBD Ltd is seeking programming support from an Mphil placement in order to implement the following aspects of the experience:

- Networked social aspects of the experience
- Audience tracking to enable multiple users to inhabit the same virtual world
- Hand / object tracking for interaction with real world props

As a programmer, you will work in a games engine (unreal), using both inbuilt programming nodes, and also creating bespoke programming blocks to sit within our specific project. You will work alongside MBD’s artwork and animation team. Your input over the duration of this 12 month project can be divided in 5 different stages:

- Induction & design requirements
- Prototyping
- Testing & updating 1
- Testing & updating 2
- Dissertation Write Up

You will work closely with the sponsoring Leicester based SME and University of Leicester. Supervision will be provided by Dr Mateusz Bocian (Department of Engineering; Director of the Biomechanics and Immersive Technology Laboratory) and Dr Yi Hong (Department of Informatics).
Qualifications:

- Bachelor Degree with at least a UK 2.1 in Informatics, Engineering, Mathematics, Physics or related subjects
- University [English language](#) requirements apply

Skills:

- Experience in programming in C# or related environments and algorithm development
- Interest in electronics and the latest visualisation and motion capture technology
- Research and network development skills
- Ability to build strong working relationships with core stakeholders (academics, sponsoring SME)
- Business engagement/development skills and aptitude
- Effective English oral and written communication skills
- A self-starter who is able to work as part of a team

**How to apply**

Please apply using the [online application system](#).

Apply for: [Campus Based Full Time /Engineering Research](#).

- In the **funding section** of the application, please select [Studentship](#) and in the dropdown menu, select [ERDF MPhil project](#).
- In the **Personal Statement** section - please indicate clearly why you are interested in undertaking this research project and why you are the best candidate to help deliver the project objectives.
- In the **Research Proposal Section** please state: **Applying for MPhil Project Ref: LIH116 no proposal required.**

Shortlisted applicants will be invited to an interview with the academics and the sponsoring SME. Interviews are expected to be held within 14 days of the application deadline.

**Application Deadline**

Open until filled

**Conditions/Qualifying Criteria**

The Leicester Innovation Hub is part-funded by European Regional Development Fund (ERDF).

To qualify for fully funded support the SME, MPhil student and University of Leicester academics must fulfil all ERDF and University MPhil degree eligibility criteria which include:

- The MPhil student: **must be a UK or EU (European Union) national**; have graduated within the last 3 years in a related discipline; adhere to project confidentiality; at the start of the project assign any arising IP from the project; base their MPhil degree thesis on the research outcomes of the project; work closely with the SME company to undertake the research project; deliver monthly progress reports and a comprehensive project report to the University and sponsoring SME in addition to the MPhil thesis. Please note that University of Leicester requires at Bachelor Degree with at least a UK 2:1 or equivalent.

- Each SME project will be delivered by one full-time MPhil student over one year; the MPhil project will have a research focus and will be supervised by two University of Leicester...
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<th>Who pays?</th>
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<td>• The University of Leicester pays a monthly stipend of £1,166.67 (total Stipend £14,000) in arears to the student. The funding will be strictly limited to 12 months.</td>
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<td>• The SME pays the University’s 1 year full-time MPhil fees (upfront before project start).</td>
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<th>Time Scales</th>
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<td>• This MPhil project will start as soon as possible, and by end of March 2019 at the latest</td>
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<td>• The MPhil projects will last a minimum of one year full-time.</td>
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Further Information

For informal enquiries about technical aspects of this Industrial MPhil please contact Dr Mateusz Bocian: m.bocian@leicester.ac.uk.

Contact Jenny Hollis (jlh74@leicester.ac.uk) for more information about the Leicester Innovation Hub.