One year fully funded industrial MPhil available from the University of Leicester (Department of Geography) to undertake applied research and development on behalf of a Small and Medium Enterprise (SME) in Leicester and Leicestershire. This research project aims to broaden the applicability of an existing B2B solution to the prediction and mitigation of fire hazards and risks in an area of high fire-risk in California, United States of America, through the integration of remotely sensed data.

The fully funded MPhil is funded by the Leicester Innovation Hub, part-funded by European Regional Development Fund, and the sponsoring SME.

**MPhil Opportunity**

"Integrating insight from remotely sensed vegetation data into the RiMiT® risk management solution for fire hazard mapping in California".

**Project Ref:** LIH029

**Background**

The company is the UK leader in the effective and efficient mitigation of tree risk to critical infrastructure. It combines in-field expertise with patented, big data analysis to deliver practical end-to-end solutions that provide the customers with the decision support information they need to successfully manage their service availability.

**The Project**

Four main deliverables have been identified for this industrial MPhil:

1. Assess the best approach to create an efficient and accurate predictive fire risk index
2. Identify the data product(s) that would best achieve the proposed research aims
3. Conduct the suggested approach with chosen data products to create the predictive fire risk index
4. Implement the calculated predictive fire risk index into the existing proprietary solution as a hazard map for a spatial prediction and mitigation of potential wildfires

You will work closely with the sponsoring Leicester based SME and University of Leicester. Supervision will be provided by Prof Kevin Tansey and Carmine Maffei.

**Qualifications:**

- **Essential:** Undergraduate degree in Geography, Physics, Environmental Science or related discipline. Degree classification of Upper Second Class (2.1) or better.

**Skills:**

- **Essential:** Excellent communication skills in both written and verbal formats in English.
- **Essential:** Experience of independent research undertaken through a thesis, dissertation or similar.
- **Essential:** Experience of remote sensing and/or image analysis.
- **Essential:** Experience of working as part of a team.
- **Desired:** Experience of computer programming of spatial image data (Python, C++, R, IDL, etc.).
- **Desired:** Experience of working with industry or other non-academic setting.
**How to apply**

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

Apply for: Campus Based Full Time / Geography

- 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: LIH029 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 academics (1 day a week each; academics are required to complete timesheets).

**Who pays?**

- The University of Leicester pays a monthly stipend of £1,166.67 (total Stipend £14,000) in arrears to the student. The funding will be strictly limited to 12 months.

- The SME pays the University’s 1 year full-time MPhil fees (upfront before project start).

**Times Scales**

- **This one year MPhil project will start as soon as possible.**

- The MPhil projects will last a minimum of one year full-time.

**Further Information**

For informal enquiries about technical aspects of this Industrial MPhil please contact Prof. Kevin Tansey, email: [kjt7@leicester.ac.uk](mailto:kjt7@leicester.ac.uk)

Contact Jenny Hollis ([j lh74@leicester.ac.uk](mailto:jlh74@leicester.ac.uk)) for more information about the Leicester Innovation Hub.