One year fully funded industrial MPhil available from the University of Leicester - Department of Mathematics & Informatics and University of Leicester School of Business - to undertake applied research and development on behalf of a Small and Medium Enterprise (SME) in Leicester. The MPhil research will help design a system/tool for analysing, selecting and reviewing investment funds. The industrial MPhil is funded by the Leicester Innovation Hub (through European Regional Development Fund monies), and the sponsoring SME.

“To design a system/tool for analysing, selecting and reviewing investment funds with the potential to outperform competition taking into account funds’ investment style and expected performance characteristics.”

Project Ref: LIH045

Background
In this exciting project, the partners propose to design a system/tool for identifying, analysing, selecting and reviewing investment fund. Three main outcomes from the project have been identified. They include:

- Improvement to the process for the analysis of funds,
- More robust and rigorous selection and monitoring of fund outcomes leading to the potential for improved portfolio returns for underlying investors.
- Business efficiencies should also help the business develop in other areas. The new system should also allow the team time to focus more time in more profitable business areas and in-depth analysis of individual investment association fund sectors

The final product (investment/financial data analysis tool) will not only allow decisions to be made more quickly but it should also enhance the company’s consultancy work: development of innovative new products; improvement of investment returns for clients with resulting capability to attract new customers; final increase in revenue to the company

The Project
This R&D project will focus on the design a system/tool for analysing, selecting and reviewing investment funds with the potential to outperform relevant peer group on a consistent ongoing basis taking into account funds’ investment style/approach and therefore expected performance characteristics given prevailing market conditions. Novelty includes:

1. Innovative data analysis approach to fund selection and monitoring, including differentiated process that takes into account ‘investment style’.
2. Launch of leading approach to fund selection monitoring product to market, providing the company with an important USP to fund selection and monitoring.
3. On successful completion of the research piece and production of the tool after testing and refinement, this should help the company’s ability to upsell to clients and win new business.
The MPhil programme will provide you the opportunity to work full time with the SME as an Investment Analyst. Your input over the duration of the project can be divided in 5 different stages:

- Data analysis and categorising funds (months 1-3)
- Shortlisting funds and developing scoring system for investment styles (months 3-6)
- Refining and testing scoring systems and quant screens (months 7-9)
- Ensure spreadsheet system is workable, efficient and monthly data can easily be update on a monthly basis and reporting outputs are robust (months 10-11)
- Research report and ongoing functionality/improvements (months 11-12)

You will work closely with the sponsoring Leicester based SME and University of Leicester. Supervision will be provided by Prof. Jeremy Levesley (Mathematics and Informatics) and Prof. Daniel Ladley (University of Leicester School of Business).

Essential Qualification & Skills

Qualifications:

- Bachelor Degree with at least a UK 2.1 in applied mathematics/ data analytics
- Experience in business analysis and finance and/or in financial risk management is a plus.
- University English language requirements apply.

Skills:

- Research and network development, testing and data analysis skills.
- Coding skills
- Ability to build strong working relationships with core stakeholders (academics, sponsoring SME).
- Business engagement/development skills and aptitude.
- Effective English oral and written skills in order to communicate effectively.
- 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 / Mathematics

- 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: LIH045 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.
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<tr>
<th>Application Deadline</th>
<th>Open until filled</th>
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<tr>
<td>Conditions/ Qualifying Criteria</td>
<td>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:</td>
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<td>- The MPhil student: <strong>must be a UK or EU (European Union) national</strong>; 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.</td>
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<td>- 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).</td>
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<td>Who pays?</td>
<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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<td>Times Scales</td>
<td>- <strong>This one year MPhil project will start as soon as possible.</strong></td>
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<td>- The MPhil projects will last a minimum of one year full-time.</td>
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<td>Further Information</td>
<td>For informal enquiries about technical aspects of this Industrial MPhil please contact Prof Jeremy Levesley, email: <a href="mailto:jl1@leicester.ac.uk">jl1@leicester.ac.uk</a></td>
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<td>Contact Jenny Hollis (<a href="mailto:jlh74@leicester.ac.uk">jlh74@leicester.ac.uk</a>) for more information about the Leicester Innovation Hub.</td>
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