

De Montfort University

Graduate School Full Bursary PhD Scholarship

Many-Objective Utility Maximisation for Business Entrepreneurship

**Department of Strategic Management and Marketing
Leicester Castle Business School (in collaboration with the School
of Computer Science and Informatics), Faculty of Business and
Law (in collaboration with the Faculty of Technology)
De Montfort University, Leicester**

COMMENCING OCTOBER 2017

A PhD research scholarship including stipend and tuition fee costs is offered within the Department of Strategic Management and Marketing in the Leicester Castle Business School. It is available to UK or EU students who are suitably qualified and have outstanding potential as a researcher.

In offering this scholarship the University aims to further develop its proven research strengths in business/entrepreneurship and computational mathematics as well as build interdisciplinary research between the Leicester Castle Business School and the School of Computer Science and Informatics. It is an excellent opportunity for a candidate of exceptional promise to contribute to a stimulating, world-class research environment.

Problems in business are often about making decisions. These decisions must take into account multiple conflicting objectives. A classical example is the so-called utility maximisation problems in enterprises seeking to employ entrepreneurial strategic options. Informally, this problem can be stated as "how should resources be allocated in order to maximise utility?" This problem can be naturally regarded as a mathematical problem and is a cornerstone of rational choice and game theories.

This project will study this problem from two complementary perspectives: business/entrepreneurship and computational mathematics. The aim of this project is to understand utility maximisation problems in terms of their mathematical features, reformulate them as multi/many-objective optimisation, apply existing algorithms and propose novel metaheuristics to address these.

For a more detailed description of the scholarship, the subject area at DMU and an application pack please visit <http://www.dmu.ac.uk/research/graduate-school/phd-scholarships.aspx>. Please direct academic queries to Dr. Dyneshia Johnson (Leicester Castle Business School) on +44 (0) 116 257 7576 or email dyneshia.johnson@dmu.ac.uk or Professor Ferrante Neri (School of Computer Science and Informatics) on +44 (0) 116 207 8570 or email fneri@dmu.ac.uk. For administrative queries contact the Graduate School office email: researchstudents@dmu.ac.uk, tel : 0116 250-6309. Completed applications should be returned together with two supporting references and an academic transcript.

Applications are invited from UK or EU students with a Master's degree or good first degree in a relevant subject (First, 2:1 or equivalent). Doctoral scholarships are available for up to three years full-time study commencing in October 2017 consisting of a bursary of £14,296 per annum in addition to waiver of tuition fees.

Please quote ref: BALFB2

CLOSING DATE: Monday 10th April, 2017. Interviews for shortlisted candidates will be held by Friday 28th April approximately..