

UNIVERSITY OF NOTTINGHAM
RECRUITMENT ROLE PROFILE FORM

Job Title: Interdisciplinary Research Associate/Fellow – Optimisation (Operational Research)

School/Department: Advanced Manufacturing Research Group, Faculty of Engineering

Job Family and Level: Research and Teaching Level 4a/4CTG/4

Contract Status: This post will be offered on a fixed term contract until 31 January 2019

Hours of Work: Full time, 36.25 hours per week

Location: Jubilee Campus

Reporting to: Professor Svetan Ratchev

The Purpose of the Role:

This role is part of the OPTIMISED research project funded by the Horizon 2020 EU research programme. Reporting to the Principal Investigator, the role holder will manage and contribute towards the delivery of specific research tasks and work closely with colleagues from both the Faculty of Engineering and partnering European research and industrial institutions.

Main Responsibilities:

	Main Responsibilities	% time per year
1.	Research activities: Use of scientific literature and previous research experience to implement multi-objective optimisation algorithms to solve a real-life optimisation problem for one of our industry partners.	75%
2.	Publications: Writing of high quality research reports and papers in order to disseminate research results and develop a track record of published research findings in internationally respected peer-reviewed journals and conferences. Further dissemination of results through oral and poster presentations at international meetings, conferences and seminars.	20%
3.	Any other duties appropriate to the grade and role and some travel within the UK and to the EU project partner's site may be required.	5%

Knowledge, Skills, Qualifications & Experience

	Essential	Desirable
Qualifications/ Education	<p>PhD (or about to obtain), master's or undergraduate degree in computer science, operations management, operational research, industrial engineering or a related engineering or management discipline specialised in optimisation.</p> <p>Candidates with substantial relevant experience in multi-objective optimisation algorithms will also be considered.</p>	
Knowledge/Skills /Training	<ul style="list-style-type: none"> • Knowledge of multi-objective optimisation algorithms in operations research and computer science (evolutionary algorithms, genetic algorithms, etc.) • Proficiency in C++, Java or C# programming language. • Knowledge of design of experiments with different optimisation approaches. • Sensitivity analysis for identifying key parameters for an algorithm. • Excellent interpersonal skills: <ul style="list-style-type: none"> ○ Strong written and verbal communication skills ○ Active listening skills ○ Strong team player • Organisation and time management skills. 	
Experience	<ul style="list-style-type: none"> • Experience in formulating and implementing multi-objective optimisation models • Being able to apply optimisation techniques in one or more domains such as manufacturing, allocation, scheduling problems, etc. 	

Scope of the Role

Working as a Research Associate/Fellow, under direction of line manager, in collaboration with other research and support staff, as a member of the Horizon 2020 OPTIMISED project.

Additional Information

This role will require dealing with the challenges of investigating different research areas and managing conflicting priorities. Resolving unexpected situations, working proactively, collaborating with colleagues in the Faculty of Engineering, School of Computer Science and European partners, as well as working independently and with a high degree of personal initiative.

Applicants will be considered on an equal basis, subject to the relevant permission to work in the UK as defined by the requirements set out by the UK Border and Immigration Agency. Please visit <http://www.ukba.homeoffice.gov.uk/> for more information.