



Job Description

Job title	Mathematical Innovation Research Associate
Department/School	Institute for Mathematical Innovation
Job family	Education and Research
Grade	7
Reporting to	IMI Manager
Responsible for	There may be a requirement for day to day supervision of other staff e.g. technical staff or, co-supervision of doctoral or undergraduate students
Location	University of Bath premises

Background and context

We live in the “era of mathematics”, where data, modelling, algorithms and artificial intelligence have become deeply rooted in all aspects of modern society. The Institute for Mathematical Innovation (IMI) is leading the delivery of multi-disciplinary and mathematically grounded research informed by real-world, societal and industrial challenges.

The IMI is building partnerships across the academic, international and industrial spectrum, adding value to cutting edge research and its application through mathematical modelling and data analytics.

We want to develop long-lasting and strategic partnerships with industry and non-academic institutions that result in maximal impact and knowledge exchange through mathematical modelling. Health, manufacturing, environment and engineering are just a few of the areas that we work in.

Job purpose

To provide mathematical and statistical expertise dedicated to a broad range of research projects.

Main duties and responsibilities

	Responsible to the Director of the Institute, reporting through the IMI Manager:
1	Conduct individual and/or collaborative research projects. Contribute to the design and execution of the project e.g. timetabling and meeting project milestones; participating in regular discussions with collaborative partners.
2	Liaise with academics, industrial partners and the IMI Manager to identify and develop research opportunities, proposals and projects.
3	Participate in departmental meetings and prepare and deliver presentations/seminars to project team, internal and external stakeholders, and funders.
4	Assist with the supervision of postgraduate students and undergraduate project students and where appropriate the assessment of student knowledge.
5	Continually update knowledge and understanding in field or specialism to inform research activity.
6	Identify sources of funding and provide assistance with preparing bids to funding bodies. Develop ability to apply for and obtain project funding.
7	Write up results of research and contribute to the publication of results in high-quality peer-reviewed academic literature.
8	Disseminate knowledge of research advances through activities such as conference presentations and national or international research visits.
	You will from time to time be required to undertake other duties of a similar nature as reasonably required by your line manager. You are required to follow all University policies and procedures at all times and take account of University guidance.

Person Specification

Criteria	Essential	Desirable
Qualifications		
A PhD degree in subject area of direct relevance for the project, or equivalent significant relevant experience and professional qualification	√	
Experience/Knowledge		
Post doctoral experience		√
Demonstrated significant depth and breadth of specialist knowledge of subject matter to contribute to research programmes and to the development of IMI research activities.	√	
Experience of industrial or interdisciplinary research projects.	√	
Demonstrated awareness of latest developments in the field of research and in research design	√	
Demonstrated potential to publish in high quality, peer reviewed journals	√	
Skills		
Ability to prepare research proposals, to conduct individual research work and to disseminate results		√
Ability to organise and prioritise own workload to meet required deadlines	√	
Ability to write research reports and to effectively disseminate outcomes	√	
Excellent oral, interpersonal and written communication skills	√	
Proficiency in appropriate techniques (as appropriate to discipline)	√	
Proficiency in IT skills (as appropriate to discipline)	√	
Attributes		
Commitment to working within professional and ethical codes of conduct	√	
Innovation and developing creative solutions	√	

Commitment to excellence in research	√	
Enthusiasm and self-motivation	√	
Tenacity – working to achieve own and team objectives and to overcome obstacles	√	
Ability to be an effective team worker	√	
Commitment to safe working practices	√	