Job Description

Modelling Associate

Salary: Grade 6
Contract: Full time and fixed term (December 2028)
School/Department: Kent Business School
Location: Canterbury Campus
Responsible to: Professor Kathy Kotiadis

Job purpose

This role is an exciting opportunity to work on simulation studies for the newly formed Centre for Advanced Diagnostics Development and Application (CADDA) part funded by Research England– UKRI. The vision of CADDA is to provide a means by which new innovative diagnostic tools are delivered to the health services. CADDA has a vibrant community of practice with hundreds of members already and offers a plethora of opportunities to collaborate on a variety of diagnostic development projects.

Working with these companies and the broader diagnostic ecosystem will give you the opportunity to collaborate with a diverse team of professionals, gain exposure to the diagnostic industry, and contribute significantly to proving the impact of diagnostic developments on health systems. Your contribution will have a tangible impact unlike anything an individual could achieve in their personal life, so this is a great chance to make a big difference.

Additionally the Modelling Associate will be disseminating findings through social media, conferences/workshops, publishing in high quality Operational Research and health/medical journals. Associates will be expected to travel to different diagnostic company sites in England as the centre has a National remit. Given the nature of the role there is some scope for remote working. Working arrangements will be explored at interview. If the applicant has a PhD or gains one during the course of this appointment a grade 7 post can be considered.

Key accountabilities

The successful candidate will:

- Collect and process the required data and prepare them for analysis and input to the simulation models.
- Development of the required simulation models and carry out further activities required to ensure model accuracy, validity, and suitability for implementation.
- Reporting on each phase to stakeholders.
- Dissemination of study findings using a variety of outlets including social media
- Contributing to the development of scientific papers associated with the work for publication in peer reviewed scientific journals.

Key duties

The post holder will be expected to:

- Read academic literature and undertake self led training to update own knowledge in the fields of simulation modelling, health care modelling and diagnostics.
- Support workshop preparation activities alongside Kent academics for problem exploration.
- Interview stakeholders to gain a better understanding of the available data or system of interest

- Present information on research progress and outcomes to bodies supervising research, e.g. governance groups.
- Prepare reports for management groups and other bodies.
- Deliver simulation based insights for the stakeholders.
- Visit diagnostic organisations and attend necessary meetings/workshops.
- Collaborating with CADDA colleagues and academic supervisors to deliver simulation-driven insights.
- Producing dissemination material throughout the project.
- Such other duties, commensurate with the grading of the post that may be assigned by the academic advisor or their nominee.

Internal & external relationships

Internal: Staff within the Kent Business School and more widely across the University

External: depending on the nature of the agreed research programme, the post holder will be working with academics from other institutions, and with a variety of regional, national or international organisations (e.g., NHS, Diagnostic companies and umbrella organisations)

Health, safety & wellbeing considerations

This job involves undertaking duties which include the following health, safety and wellbeing considerations:

- Regular use of Screen Display Equipment
- Pressure to meet important deadlines such as might be inherent in high profile projects

Person specification

The Person Specification details the necessary skills, qualifications, experience or other attributes needed to carry out the job. Please be aware that your application will be measured against the criteria published below.

Selection panels will be looking for clear evidence and examples in your application, or in your cover letter where applicable, which back-up any assertions you make in relation to each criterion.

Essential Criteria:

- MSc in an area relevant to Operational Research, Management Science, Business Analytics, Data Science, Computer Science, Mathematics, Management Engineering, or other closely related disciplines (A)
- Previous working or research experience in health modelling or other real world context including simulation modelling (A)
- Excellent understanding of: other simulation approaches such as Monte Carlo/Agent Based, System Dynamics, data science, machine learning and data mining techniques (A)
- Good IT skills, particularly Microsoft Office packages (A)
- Familiarity with techniques and frameworks for data storage and data analytics (A,I)
- Excellent interpersonal skills and experience working within teams (I)
- Ability to communicate clearly and effectively (I)
- Good presentation skills and proven time management skills (I)
- Familiarity with undertaking literature searches and literature reviews (I)
- Excellent communication skills to deal with a variety of people at different levels of seniority (I)
- Leadership attributes and be prepared to initiate activity in all aspects of the project throughout its duration (I)
- Flexible problem-solving skills to develop solutions to improve business performance (I)
- Willingness to travel between health modelling locations and the University of Kent, and attend academic conferences and other relevant events (I)

- Firm commitment to achieving the University's vision and values, with a passion for a transformative student experience and multidisciplinary, impactful research (I)
- Commitment to deliver and promote equality, diversity and inclusivity in the day to day work of the role (I)

Desirable Criteria:

- Experience with facilitated simulation such as PartiSim (I)
- Experience of forecasting methods (A)

Assessment stage: A - Application; I - Interview; T - Test/presentation at interview stage