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**British Council Early Career Fellows**

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| **Bursary:** | **£30,000 per annum (pro rata)** |
| **Duration:** | **For a fixed term period of 12 months and full-time**  |
| **School/Department:** | **Kent Business School****School of Biosciences** |
| **Location:** | **University of Kent, Canterbury campus**  |
| **Responsible to:** | **Prof Maria Paola Scaparra****Prof Michelle Garrett**  |
| **Expected start date:** | **October 1, 2024**  |

**The Role**

We look for 3 talented and motivated research fellows from Vietnam to join the University of Kent’s Early Career Researcher Fellowship programme, funded by the British Council through the International Science Partnerships Fund. Successful fellows will have expertise in analytics (alias Operational Research) or in biosciences, and will work on one of the three following research areas.

**Research Area 1 (Analytics).** Flood Resilience: Integrating artificial intelligence, analytics and participatory approaches to drive inclusive flood mitigation decisions in Vietnam's urban and rural areas.

**Research Area 2 (Analytics).** Sustainable transport: Optimizing infrastructure investments through data-driven analytics for sustainable mobility, logistics and climate-resilient transport in the Mekong Delta, Vietnam.

**Research Area 3 (Biosciences)**. Crop resilience: Genetic informed improvement of the medicinal plant *Centella asiatica* to aid climate resilient production of anticancer compounds in rural areas of Vietnam.

Successful fellows for **research areas 1 and 2** will join the Department of Analytics, Operations and Systems (DAOS) in Kent Business School (<https://research.kent.ac.uk/daos/>). They will work closely with Prof Maria Paola Scaparra and other DAOS academics with the primary goals of publishing in top operational research journals, generating impactful research which address a sustainable development challenge in Vietnam, establishing new research collaborations and launching their research career in analytics, operational research and management science. They will also have an opportunity to engage with the activities of the Centre for Logistics and Sustainability Analytics (<https://research.kent.ac.uk/celsa/>).

Successful fellows for **research area 3** will join the School of Biosciences. They will work closely with Prof Michelle Garrett, Dr Helen Cockerton and Dr Sara Lopez-Gomollon on an interdisciplinary project to produce impactful research that addresses the issue of climate-resilient medicinal plant based production of anticancer compounds in rural areas of Vietnam, publish their research in high impact journals, form new collaborations and develop their career in the field of plant biology research. There will also be opportunities to interact with other organisations including the Institute of Health, Social Care and Wellbeing (<https://www.kent.ac.uk/research/institute-of-health-social-care-and-wellbeing>), and Growing Kent and Medway (<https://research.kent.ac.uk/gkmkent/>).

As part of the application, candidates are required to submit their CV and a two-page “Research Interests, Plans and Career Aspirations” statement. The statement should indicate the preferred area of research among the 3 listed above. It should then outline the applicant’s research interests, their expertise to address the research challenge, their future career aspirations and how they plan to contribute to capacity-building and socio-economic advancement in Vietnam upon their return.

Applicants will be able to access support from our [network of recruitment representatives](https://www.kent.ac.uk/international/countries) who are contracted to support international applicants to UoK including with visa/funding support. Contact details [HERE](https://www.kent.ac.uk/international/countries/vietnam).

**Key Accountabilities / Primary Responsibilities**

The successful candidate will:

* Develop new skills and techniques relevant to the selected research area through advanced training within and outside the University of Kent.
* Conduct independent research within the designated area, under the supervision of two academic supervisors.
* Seek opportunities to apply research findings by engaging with relevant stakeholders.
* Disseminate research findings through publication in peer-reviewed academic journals, conference presentations, seminars, and media.
* Cascade the knowledge and practical experience gained in the UK in Vietnam at the end of the fellowship.

**Key Duties**

With the support of the academic supervisors, the post holders will be expected to:

**Research areas 1 and 2**

* Identify sources of existing data and initiate new data collection activities to address any data gaps.
* Work with a wide range of stakeholders to obtain information used in the modelling process, potentially involving the use of facilitation, problem structuring methods, and other Soft OR techniques.
* Develop advanced optimisation-based mathematical models and, if required, exact and heuristic approaches to solve realistic problem instances.

**Research area 3**

* Undertake plant propagation in a controlled laboratory environment.
* Carry out molecular biology related work e.g. DNA/RNA extraction, PCR.
* Perform data analysis including genome assembly, sequence data analysis and statistical analysis of data.

**All research areas**

* Review the scientific literature relevant to the research area.
* Write up the research outcomes for publication in leading peer-reviewed journals.
* Engage in continuous professional development.
* Contribute to the University of Kent research and innovation culture by attending and contributing to department meetings, research seminars and peer-to-peer activities.
* Maintain contact with the British Council for purposes of monitoring and evaluation during and after the fellowship.
* Engage other early career researchers from Vietnam.

**Benefits**

Successful applicants will enjoy the following benefits:

* A £10k budget for bespoke advanced training, short internships and conference attendance.
* Financial support (~£6k) to cover travel expenses, visa, insurance and other ad-hoc costs (e.g., IELTS).
* Access to cutting-edge research facilities and resources (e.g., library, labs, software, journals).
* Support for accompanying dependents.
* Career development support through the Researcher Development Programme of the UoK's Graduate and Researcher College.
* Access to mentors from the supervisors’ Vietnam analytics and biosciences academic networks to facilitate their career launch upon return to Vietnam.
* Access to mentors from analytics and biosciences women networks (e.g., WORAN, WISDOM) to support female fellows.
* Networking opportunities with renowned scholars and industry leaders in relevant research and innovation area.
* “Honorary Academic” status upon leaving the University of Kent.
* During their staying in the UK, fellows will participate in the UK OR Society Annual Conference (research areas 1 and 2) and both BACR and EACR conferences (research areas 3) to network with peers and establish their visibility within the international academic community.

**Health, Safety & Wellbeing Considerations**

This role involves undertaking duties which include the Health, Safety and wellbeing issues outlined below. Please be aware of these, when considering your suitability for the role.

* Regular use of Screen Display Equipment

**Internal & External Relationships**

**Internal:** Staff within the Kent Business School and the School of Biosciences, and more widely across the University.

**External:** depending on the nature of the agreed research, the post holder may be working with academics from other institutions, including institutions in their own country.

**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.

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| **Qualifications / Training for research areas 1 and 2** | **Essential** | **Desirable** | **Assessed via\*** |
| A PhD degree already obtained or close to completion in operational research, management science, business analytics, mathematics, computer science, or a related discipline. | **✓** |  | **A** |

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| **Qualifications / Training for research area 3** | **Essential** | **Desirable** | **Assessed via\*** |
| A PhD degree already obtained or close to completion in plant biology, molecular biology or a related discipline. | **✓** |  | **A** |

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| **Experience / Knowledge for research areas 1 and 2** | **Essential** | **Desirable** | **Assessed via\*** |
| Knowledge of mathematical optimisation (e.g., combinatorial optimisation, robust optimisation) | **✓** |  | **A** |
| Experience with optimisation software (e.g., Cplex, Gurobi, COIN-OR) and/or modelling languages (e.g., OPL, GAMS, AMPL). | **✓** |  | **A** |
| Computer programming knowledge (e.g. Java, C++, Python, or similar). | **✓** |  | **A** |
| Experience developing and applying metaheuristic solution methods. |  | **✓** | **A, I** |
| A record of publications in quality peer reviewed journals, commensurate with stage of career. |  | **✓** | **A** |
| Experience working with stakeholders in industry or government |  | **✓** | **A, I** |
| Experience in working on inter-disciplinary projects. |  | **✓** | **A, I** |

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| **Experience / Knowledge for research area 3** | **Essential** | **Desirable** | **Assessed via\*** |
| Knowledge of plant biology and genetics. | **✓** |  | **A** |
| Knowledge of laboratory-based molecular biology techniques (e.g. PCR, restriction digests, agarose gel electrophoresis). | **✓** |  | **A** |
| Experience of working with plants. | **✓** |  | **A** |
| Bioinformatic expertise. |  | **✓** | **A, I** |
| A record of publications in quality peer reviewed journals, commensurate with stage of career. |  | **✓** | **A** |
| Experience working with stakeholders in industry or government |  | **✓** | **A, I** |
| Experience in working on inter-disciplinary projects. |  | **✓** | **A, I** |

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| **Skills / Abilities for all research areas** | **Essential** | **Desirable** | **Assessed via\*** |
| Strong analytical and problem-solving skills. | **✓** |  | **A** |
| Good IT skills. | **✓** |  | **A** |
| Excellent written and verbal communication skills. | **✓** |  | **A, I** |
| Excellent interpersonal skills. | **✓** |  | **I** |
| Proven time management skills and ability to meet deadlines. | **✓** |  | **A, I** |
| Ability to work both independently and collaboratively in a multicultural environment. | **✓** |  | **A, I** |

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| **Additional Attributes for all research areas** | **Essential** | **Desirable** | **Assessed via\*** |
| Commitment to deliver within deadlines.  | **✓** |  | **A, I** |
| Continued interest to develop professional profile, knowledge and skills. | **✓** |  | **A, I** |
| Willingness to engage other early career researchers from Vietnam. | **✓** |  | **I** |
| Ability to plan and manage own research activity. | **✓** |  | **A, I** |
| Interest to promote research using a range of media (e.g., social media) | **✓** |  | **I** |

**\*Criterion to be assessed via:**

**A = application form or CV/cover letter**

**I = interview questions**