Job Details

Research Associate/Fellow in Positioning and Navigation

Job Purpose
To make a leading contribution to the growing research in Geospatial Data Science within the College of Science and Engineering, this research associate/fellow will work with Professor Ana Basiri and the growing team to investigate (indoor and outdoor) mapping, occupancy monitoring by studying the interaction between the environment and the signals of opportunity (SoO) - such as Wi-Fi, Ultra WideBand (UWB), 5G, and 6G.

The successful candidate will be required to make (a leading) contribution to the formulation and submission of research publications and research proposals, supervision of PhD and MSc students, projects and presenting and organising conferences, seminars and workshops in the relevant areas as opportunities allow.

Main Duties and Responsibilities
1. Perform the following activities in conjunction with the other researchers and under the guidance of the Principal Investigator of the UK Research and Innovation (UKRI) Future Leaders Fellowship- 3D mapping using degradation of positioning signals
2. Investigate and model the effects of the environment, including buildings and occupants on the characteristics of signals around us, i.e. Signals of Opportunity for localisation or mapping. These effects can help with occupancy monitoring of the environments (in particular indoors), simultaneous localisation and mapping (SLAM).
3. Collaborate with the growing team in Geospatial Data Science at the University of Glasgow, and Centre for Data Science and AI, and project partners- including Ordnance Survey GB, Google, Microsoft Research, Uber, Meta, and the Alan Turing Institute
4. Plan and conduct assigned research individually or jointly in accordance with the project deliverables and project/group/School/College research strategy.
5. Contribute to the presentation of work at international and national conferences, at internal and external seminars, colloquia and workshops to develop and enhance our research profile.
6. Supporting and contributing to FAIR principles, i.e. findability, accessibility, interoperability, and reusability of research in geospatial data science by, for example, making data and code repositories available and reproducible, developing APIs, software packages, writing blogs, drafting technical/progress reports and papers as appropriate.
7. Take a leading role in the identification of potential funding sources and to assist in the development of proposals to secure funding from internal and external bodies to support future research.
8. Take a leading role in developing and maintaining collaborations with colleagues across the research group/School/College/University and wider community (e.g. Academic and Industrial Partners).
9. Take a leading role in team/group meetings/seminars/workshops and School research group activities to enhance the wider knowledge, outputs and culture of the School/College.
10. Take the lead in the organisation, supervision, mentoring and training of undergraduate and/or postgraduate students and less experienced members of the project team to ensure their effective development.
11. Engage in personal, professional and career development to enhance both specialist and transferable skills in accordance with desired career trajectory.
12 .Undertake any other duties of equivalent standing as assigned by the PI.
13. Contribute to the enhancement of the University's international profile in line with the University's Strategic Plan, World Changers Together.

For appointment at grade 8
14. The candidate is expected to perform the above duties with a higher degree of independence, leadership and responsibility, particularly in relation to planning, funding, collaborating and publishing research, and mentoring colleagues, establish and sustain a track record of independent and joint published research to establish and maintain your expert reputation in the subject area and develop/implement a suitable research strategy. These key tasks are not intended to be exhaustive but simply highlight a number of major tasks which the staff member may be reasonably expected to perform.

Knowledge, Qualifications, Skills and Experience
Knowledge/Qualifications
Essential:
A1 An awarded (or recently submitted or near completion) PhD, Scottish Credit and Qualification Framework level 12, or equivalent professional qualifications in one of the areas of electrical engineering, signal processing, physics, computer science, mechatronics, communication and information technology or similar disciplines.
A2 Extensive knowledge of at least two of the followings: indoor positioning, navigation, signal processing, robotics, UAVs, Internet of things, or computer Science.
A3 Extensive experience in one or two programming languages (e.g. Python, R, C++)

Desirable:
B1 Good knowledge and experience in positioning and navigation applications

Skills
Essential:
C1 Excellent communication skills (oral and written), including presentations for industrial partners, and ability to communicate complex data/concepts clearly and concisely
C2 Excellent interpersonal skills including team working and a collegiate approach
C3 Extensive quantitative data analysis skills
C4 Self-motivation, initiative and independent thought/working
C5 Problem solving skills including a flexible and pragmatic approach

For appointment at grade 8:
C6 Good Team Leadership skills

Experience
Essential:
E1 Sufficient depth of relevant research experience, normally including sufficient postdoctoral experience in a related field, appropriate to an early career researcher
E2 Experience of making a leading contribution in academic activities.
E3 Experience in undertaking independent research
E4 A track record of presentation and publication of research results in quality journals/conferences

E5 Ability to demonstrate a degree of independence as illustrated by identification of project objectives from assessment of the literature, design & analysis of experiments & drafting of papers.

For appointment at grade 8:
E6 Substantial, relevant research experience in a related fieldE7 An established national/international profile

Desirable:
F1 Experience with collaborating with or working at international academic environments of the highest national or international quality
F2 Support of less experienced members of the project team e.g. postgraduate and project students

For appointment at grade 8:
F3 An emerging national or international reputation

Closing date - 25 April 2023

Terms and Conditions
Salary will be Grade 7/8, £38,474 - £43,155 /£47,047 - £54,421 per annum.

This post is full time and has funding for up to 2 years in the first instance, with the possibility of extension.
As part of Team UofG you will be a member of a world changing, inclusive community, which values ambition, excellence, integrity and curiosity.

As a valued member of our team, you can expect:
1 A warm welcoming and engaging organisational culture, where your talents are developed and nurtured, and success is celebrated and shared.
2 An excellent employment package with generous terms and conditions including 41 days of leave for full time staff, pension - pensions handbook https://www.gla.ac.uk/myglasgow/payandpensions/pensions/, benefits and discount packages.
3 A flexible approach to working.
4 A commitment to support your health and wellbeing, including a free 6-month UofG Sport membership for all new staff joining the University https://www.gla.ac.uk/myglasgow/staff/healthwellbeing/.

We believe that we can only reach our full potential through the talents of all. Equality, diversity and inclusion are at the heart of our values. Applications are particularly welcome from across our communities and in particular people from the Black, Asian and Minority Ethnic (BAME) community, and other protected characteristics who are under-represented within the University. Read more on how the University promotes and embeds all aspects of equality and diversity within our community https://www.gla.ac.uk/myglasgow/humanresources/equalitydiversity/.

We endorse the principles of Athena Swan https://www.gla.ac.uk/myglasgow/humanresources/equalitydiversity/athenaswan/ and hold bronze, silver and gold awards across the University.

We are investing in our organisation, and we will invest in you too. Please visit our website https://www.gla.ac.uk/explore/jobs/ for more information.

Vacancy Ref :   113068   Close Date :   25-Apr-2023 23:45