

Research Associate in Advanced Turf Measurement for Player Safety and Performance

REQ200518

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Project Description

Applications are invited for a Research Associate position in the Sports Technology Research Group, Wolfson School of Mechanical, Electrical and Manufacturing Engineering, Loughborough University. The research group has an outstanding international reputation in sports engineering research, working with global brands on the design, simulation, testing and manufacture of sports goods (www.lboro.ac.uk/research/sti/). In particular, the group has built a world-leading track record in sports surfaces research (sportsurf.lboro.ac.uk). The group has access to extensive laboratory and field facilities to support their research.

This project is funded by FIFA with the overall purpose of developing new portable mechanical test devices to measure the typical player–surface interaction in football for integration into the FIFA Quality Programme for Football Turf. The project is collaborative in nature and the Research Associate will work with the teams at Loughborough University and Labosport Ltd, a Nottingham-based major sports surface test house (labosport.com/labosport-uk).

Job Description

Job Grade: Specialist and Supporting Academic Grade 6

Job Purpose

The role presents the opportunity to make a real difference to the regulation of football surfaces worldwide. While based in the Sports Technology Institute at Loughborough University, the Research Associate will work closely with external collaborators Labosport and FIFA to ensure successful delivery of the project. There is also a clear expectation to publish the outcomes in relevant journals. The expertise gained and networking opportunities, including visits to FIFA and involvement in the annual FIFA Research Symposium, are expected to position the Research Associate effectively for a future career in either industry or academia.

Job Duties

Research

- To identify and analyse relevant player–surface interaction and surface response data from a review of the literature and in-house databases.
- To evaluate and modify the current FIFA test devices to better match the player data.
- To test the modified devices and identify the modifications that provide the best agreement with player perception data.
- To design and test upgraded test devices which retain the modifications identified.
- To generate the documentation required for the FIFA Quality Programme for the upgraded devices.
- To write research papers suitable for publication in high quality academic journals.
- To attend meetings and make presentations both within the project partners working group and to external stakeholders.

- To plan, manage and conduct the work according to agreed deadlines.
- To always maintain confidentiality and ensure that intellectual property agreements are not violated.
- To work closely with the small team of experienced academics who will contribute expertise in sports surface testing and player perception.

Teaching

- Teaching is not the primary purpose of this post and teaching load will be small relative to the typical load of a member of academic staff in the School, but the Research Associate will be expected to contribute to taught programmes and student projects, at any level, if appropriate and if requested to do so.

Other Related Activities and Functions

- To engage in training programmes in the University (e.g. through Professional Development) and elsewhere as required.
- To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Points To Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

Organisational Responsibility

Reports to the project supervisor, Dr Steph Forrester.

Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Background in engineering, science or mathematics.	1
	Experience in the design and development of mechanical test equipment.	1,3
	Experience in experimental testing with human participants.	1,3
	Conducted original research that can be, or has been, published in high-quality journals.	1,3
	Extensive experience of coding in Matlab or Python.	1,3
Skills and abilities	Demonstration of excellent technical ability.	1,3
	Ability to work accurately and precisely on specific engineering problems.	1,3
	Self-motivated and able to work without close supervision.	1,3
	Ability to work to deadlines.	1,3
	Excellent report writing and presentation skills	1,3
	Good journal and/or conference publication record.	1,3
	Excellent interpersonal skills.	1,3
	Ability to maintain confidentiality at all times.	1,3
	Ability to work independently and as part of a team.	1,3
Training	A willingness to undertake further training as appropriate and to adopt new procedures as and when required.	3
Qualifications	Hold either a PhD in engineering or another relevant subject or a Masters alongside relevant industrial experience.	1,3
Other	Demonstration of a passion for sport and sports surfaces.	1,3
	Demonstration of suitability for the specific position being advertised.	1
	Evidence of a good working knowledge of equal opportunities and understanding of diversity in the workplace.	3

Desirable Criteria

Area	Criteria	Stage
Experience	Mechanical testing of sports surfaces.	1,3
	Mechanical design of equipment for surface testing.	1,3
	Designing and running experiments to capture subjective feedback from human participants.	1,3

Skills and abilities	Knowledge of the FIFA Quality Programme for Football Turf.	1,3
	Experience of working with external collaborators.	1,3
Qualifications	Hold a PhD in mechanical design including human factors.	1,3
	Willingness to travel within the UK and Europe for project meetings.	3

Conditions of Service

The position is **full-time** and **fixed-term** until March 2022. Salary will be on Specialist and Supporting Academic Grade 6 (£30,942- £40,322 per annum), at a starting salary to be confirmed on offer of appointment.

The appointment will be subject to the University's Terms and Conditions of Employment for Grades 6 and above, details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which are available at <http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html>.

The University offers a wide range of employee benefits which can be found [here](#).

In addition, the University is supportive, wherever possible, of flexible working arrangements. We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>