PhD studentship competition
Fully funded 4 year PhD available.

Title: Designing a sustainable future for golf: on course for socio-technological innovation

Supervisors: Rehema White (School of Geography and Sustainable Development) and Jan Bebbington (School of Management), University of St Andrews

The golf sector faces sustainability opportunities including reduction in water and chemical use, biodiversity support, mitigation and adaptation to climate change and possibilities to address access and equity issues. Some excellent practices have already been developed, but the sector is seeking to understand the potential from new and emerging technologies to further enhance the sustainable management of golf courses. Evidence suggests that technological innovation and successful deployment of technologies is stimulated through stakeholder engagement: socio-technological innovation.

This project is a unique opportunity, co-developed with The R&A to identify and integrate technological possibilities within a wider socio-ecological context in order to optimise sustainability outcomes for golf. Using a co-production of knowledge and design approach, the student will collaborate with existing and emerging initiatives. The research will address three questions. Firstly, what are the recent advances in sustainable golf course technology that have been developed, particularly for waste, energy and water? Secondly, what technologies have been developed in other sectors that could be adapted for golf courses to enhance sustainability? Finally, how can we design socio-technological systems that can be adopted and implemented in ways that are supported by golf and other stakeholders and that maximise other sustainability goals, such as environmental and human wellbeing?

The project will include a review of recent advances in sustainable golf course and other relevant technologies. The focus will be on technologies to address waste, energy and water solutions, but emphasising the interlinked nature of these aspects and the structures and processes required to support such solutions. Engagement with key sector informants will capture expert and practitioner knowledge. Selected technologies will be tested in two pilot sites, hence the project has fieldwork requirements. Research skills and training will be gained in technology development, stakeholder engagement, collaborative and interdisciplinary research approaches, management and sustainability strategy. The candidate will be required to travel overseas and to work closely with selected golf courses and organisations, including the funder, The R&A.

Eligibility & funding amount: We invite applicants with a suitable undergraduate and/or Masters degree to apply. Applicants should have excellent communication skills, an interest in golf and socio-technological innovation and the capacity to undertake rigorous academic study. Relevant
experience in facilitating collaborative projects would be desirable. The project is funded by The R&A. The successful candidate will receive an annual stipend in line with RCUK levels and payment of UK/EU tuition fees, and the funding includes support for fieldwork. Overseas candidates are welcome to apply but would need to fund the difference between UK/EU and overseas student fees.

**How to apply:** Please complete our online PhD Application and ensure that you do the following:

- Apply to the “School of Geography and Sustainable Development”.
- Apply to the programme “PhD Sustainable Development (Arts)”.
- Note on the application that you are applying for a project funded by The R&A.
- Note that the title of the project is “Designing a sustainable future for golf: on course for socio-technological innovation”.
- Name your supervisors as Rehema White and Jan Bebbington.
- Please upload a sample of academic writing (minimum of 500 words).

Successful shortlisted candidates will be interviewed on 21\textsuperscript{st} February. For informal enquiries, contact Dr Rehema White (rehema.white@st-andrews.ac.uk). The deadline for applications is 5pm 31\textsuperscript{st} January.