Applications are welcome for a number of PhD projects, listed below, fully-funded for 3.5 years, exploring two exciting strands of the UK's future Industrial Strategy:

- Machine Learning and High-Performance Computing applied to large Earth and Environmental Science datasets and climate science problems.
- New developments in sustainable plant-based building materials and recycling of critical raw materials for fuel cells.

Two studentships starting September 2018 are available providing:

- A stipend for 3.5 years (starting £14,777 p.a.);
- Tuition fees;
- £11,000 for lab, computer and field expenses (plus at least a further £3,000 from the project CASE partner); and
- Student training budget of £4,000.

Training and Career Development Programme

The NERC GW4+ DTP is a partnership of the Universities of Bath, Bristol, and Exeter, Cardiff University and six Research Organisations. In addition to our in-house DTP courses, we hold events which bring together all DTP students to encourage them to establish relationships for mutual support and collaboration across scientific disciplines. Furthermore, we provide a training budget (£4,000 per student) to purchase any specialist training.

Our students are exposed to science policy-making in government and training in consultancy and entrepreneurship. A variety of funded work and policy placements in industrial and technology companies and research, governmental and voluntary organisations in the UK and overseas are available to students during their PhDs.

Our partnership emphasises research excellence and our aim is to pave the way for tomorrow's visionaries, leaders and problem-solvers in the Earth and Environmental Sciences, providing a solid foundation for a rewarding career beyond the PhD.

Eligibility

We welcome applications from students in relevant NERC's science disciplines, physics, engineering, mathematics, statistics and computer programming. Detailed candidate requirements and a supervisor contact email are provided on the projects descriptions linked below. Please email the supervisor if you

have any questions about the project or eligibility. Applications are open to anyone satisfying the UK residency requirements for a full NERC studentship.

Academic requirements

Applicants should have obtained, or be about to obtain, a first- or upper second-class UK Honours degree, or the equivalent qualifications gained outside the UK. Applicants with a lower second-class degree will be considered if they also have a Master's degree. Applicants with a minimum upper second-class degree and significant relevant non-academic experience are also encouraged to apply.

Artificial Intelligence, Machine Learning & the Data-Driven Economy PhD projects available

Untangling the web: using machine learning to understand dynamical couplings between the Southern Ocean, cryosphere and how they impact our future climate

Managing Large Climate Data for Oil Exploration

Using deep learning to map sea level and ocean dynamics along the North Atlantic eastern boundary

Clean Growth PhD projects available

Sustainable sourcing of platinum-group metal (PGM) from unconventional resources for supply to hydrogen production and fuel cell electric vehicles.

Development of bio-based, low carbon and low-cost building materials with improved thermal and acoustic properties – harvesting the potential of vegetal fibres.
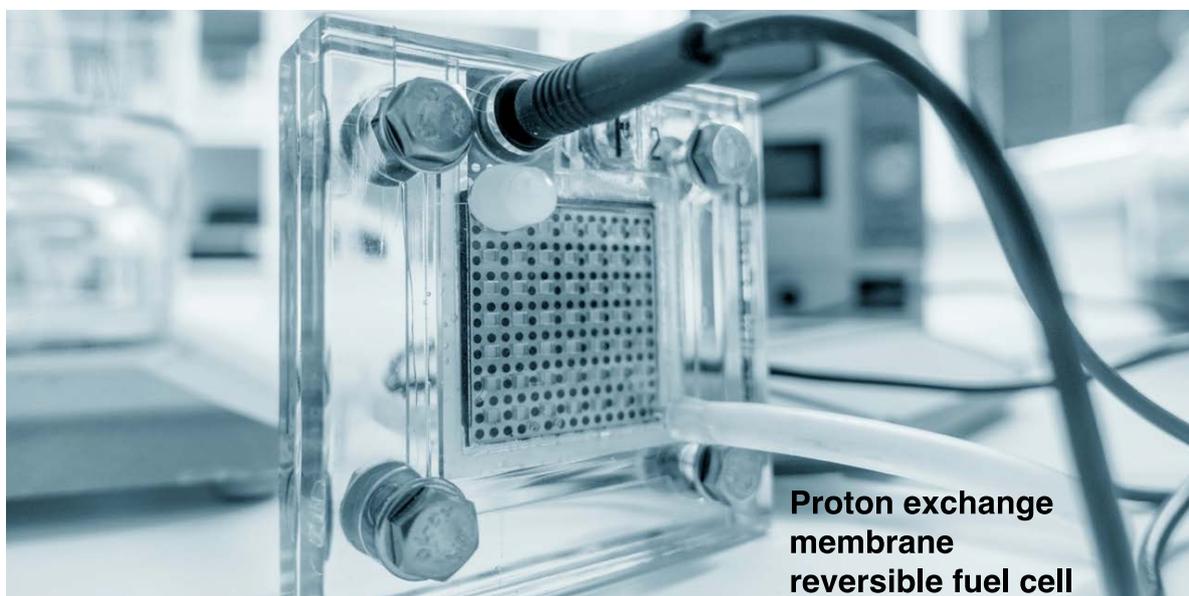
Proton exchange membrane reversible fuel cell

How to apply

Please follow the instructions on the individual project descriptions. If you require assistance, please email gw4plus-dtp@bristol.ac.uk.

Application deadline: 2359 hours BST Monday 9 July 2018. Interviews take place in July 2018.