The EPSRC Centre for Doctoral Training in Science and Engineering in Arts, Heritage and Archaeology at University College London, University of Oxford and University of Brighton, in collaboration with Worcester County Council and the Landscape Research and Management are seeking applications for a fully funded studentship on the topic ‘Evaluating contemporary digital technologies for the reconstruction and mapping of archaeological resources’. Funded by the Engineering and Physical Sciences Research Council (EPSRC) through the SEAHA Centre for Doctoral Training and co-funded by the University of Brighton the four-year doctoral research project will be supervised jointly by UCL Institute for Sustainable Heritage, the University of Brighton as well as academics from the partner institutes.

The recent emergence and availability of sUAS mounted multispectral sensors, and advancements in spaceborne capabilities through hyperspectral and radar analysis, presents new possibilities for developing an increased understanding of subsurface sediment architectures within complex geomorphological areas, allowing predictions to be made of their archaeological potential. The project will assess the potential of an integrated and holistic approach in this scientific arena, and develop a systematic methodology for specific data collection protocols for deployment of these approaches. High resolution, large volume data, will be captured and analysed to map geomorphological and archaeological features within the alluvial valleys of the Rivers Lugg and Wye, in the UK. Variation in spectral responses of different valley components will be analysed using computational image analysis, Multiview stereopsis, and allied to mathematical and statistical approaches. This will provide a detailed assessment of the potential for these integrated approaches to map surface sediment conditions. The modelled interpretations will be tested through ground based sediment sampling; reconstructing the sediment sequences of the valley system, examining their relationship to near surface and sub-surface sediment variability. Representative sampling design will be conducted to incorporate the variability offered by the proposed valley systems.

**Academic entry requirements** *(below is the standard copy, please amend as appropriate)*

Applicants should have a minimum of a 2:1 undergraduate degree and desirably hold or expect to achieve excellent grades in a masters degree, in a relevant subject from a UK university or comparable qualifications from another recognised university.

**English language entry requirements** *(below is the standard copy, please amend as appropriate)*

Proof of meeting the UCL English language proficiency requirements where necessary. For SEAHA candidates, a standard level certificate is normally required. See [http://www.ucl.ac.uk/prospective-students/graduate/life/international](http://www.ucl.ac.uk/prospective-students/graduate/life/international)

Applicants whose first language is not English must have successfully completed a Secure English language Test (SELT) in the last two years. Applicants who have obtained or are studying for a UK degree may apply without a SELT. However, the university may request a SELT is taken as part of any award made.
English language IELTS requirements are minimum of 6.0 in each component.

If you have an English language qualification other than IELTS, please contact us to see if you are eligible to apply for a studentship. The UK Home Office will not accept TOEFL tests as proof of meeting the English language requirements

Eligibility criteria

See http://www.seaha-cdt.ac.uk/study-with-us/studenthips/eligibility-criteria/

Funding

This project is a four year integrated MRes/PhD studentship in the SEAHA Centre for Doctoral Training (www.seaha-cdt.ac.uk), funded by the EPSRC, UCL, the University of Brighton, the University of Oxford, and SEAHA heritage and industrial partners. The project is fully funded for UK resident students, and fees-only for other EU students. Limited possibility of funding for international students may also be available.

Contact

If you have any questions about this project, funding or application process, please contact:
Dr Chris Carey: C.J.Carey@brighton.ac.uk

How to apply

The application should be submitted by email direct the SEAHA inbox at the University of Brighton:
SEAHA@brighton.ac.uk

and not by the UCL or UoB online admissions system.

To submit an application by Thursday 19th April, please include all of the following:

- a substantial covering letter (2–3 pages) including a clear explanation of your motivation for your proposed project
- a statement of your understanding of your eligibility according to the information provided at: http://www.seaha-cdt.ac.uk/study-with-us/studenthips/eligibility-criteria/ and https://www.epsrc.ac.uk/skills/students/help/eligibility/
- a research proposal (approx. 1,000 words) including project research questions and methodology
- a full detailed CV
- contact details for two academic references (names, postal and email addresses)
- proof of meeting the UCL/UoB English language proficiency requirements where necessary.

We will only consider complete applications.