Royal Commission for the Exhibition of 1851

Research Fellowships in Science or Engineering

Brunel Fellowship in Engineering

2027 Terms and Conditions | Closing Date 20 January 12pm UK

Background

1. 1851 Research Fellowships are intended to give early career scientists and engineers of exceptional promise the opportunity to conduct a research project of their own instigation; an ultimate objective is to contribute to the knowledge base required for a healthy and innovative national culture.

2. The Brunel Fellowship is aimed specifically at researchers in the core subjects of Civil, Mechanical, Electrical and Aeronautical Engineering seeking to address the primary infrastructure needs of modern society: the buildings we live and work in, transportation of many forms and the machinery and plant which supply our energy needs. Since 2021 the Brunel Fellowship has been an entirely separate competition conducted in parallel with the broader Science and Engineering Research Fellowships and the assessment of applicants reflects the different demands and expectations of core Engineering subjects, particularly in respect of the probable complexity of the final outcomes. One Brunel Fellowship will be awarded annually provided that there is a candidate who meets the standard set out in paragraph 1.

3. The Brunel Fellowship celebrates the lifetime contributions of Isambard Kingdom Brunel, one of the leading engineers of the 19th Century, who was at the peak of his contributions to society at the time of the Great Exhibition in 1851. Applications are expected to embrace a wide range of projects, from low-TRL visionary new concepts to high-TRL advanced research projects approaching commercial exploitation. Applications for research aimed at contributing to the achievement of net zero carbon are particularly encouraged.

4. It is anticipated that many of these applications will involve collaboration with industry and will be concerned with the complex engineering initiatives that shape the infrastructure of modern society. Nowadays, transfer of university-based engineering research into industrial commercialisation is often a very difficult transition but it is a vital one. This challenge is seen as a classic target for a Brunel Fellowship.

5. The award is normally for a duration of up to three years, subject to annual review, but there are opportunities to extend this on a pro rata basis to facilitate part time working where appropriate, subject to prior approval.

6. Fellowships are held from 1 October or such date in the year of award as agreed with the Fellow, with Fellows being required to devote their whole time at work to their research project for the duration of the Fellowship. A limited amount of time may be spent on teaching or lecturing with the written agreement of the Commission.

Eligibility

7. The Brunel Fellowship is open to candidates intending to conduct research in any of the core Engineering disciplines that impact directly on infrastructure. These disciplines are primarily based in Civil, Mechanical, Electrical and Aeronautical/Aerospace Departments but may also be found in other Engineering Faculties. Engineers seeking support for research outside this boundary should apply for a Science and Engineering Research Fellowship. Repeat applications for the same project from previously unsuccessful applicants will not be accepted. Those applying for a Science and Engineering Fellowship may not submit a duplicate application for this Fellowship.

8. It is likely, although not essential, that some projects may involve collaboration with industry, and this is encouraged. Postdoctoral research fellows can play a vital role in engineering by ensuring that advanced academic research is successfully transferred into industry.

9. Candidates should hold a PhD or be in the final stages of their PhD studies, to be successfully completed before the award of a Fellowship can be confirmed. Given that these are early career awards, those with more than 2.5 years postdoctoral research experience (discounting career breaks) by 31 January in the year of award (31 January 2027) will only be considered in exceptional circumstances*. Where applicable, these should be explained in the form of a personal letter addressed to The Secretary to accompany the submission.
*** Please note that exemptions are rarely granted. Commissioners must be convinced that disruption to your postdoctoral experience was exceptional and beyond your control.**

10. The Brunel Fellowship will normally be held at a UK Institution approved by the Commissioners and the research should normally be carried out at a different Institution from the one where the candidate's PhD research was undertaken. In exceptional circumstances the Commissioners may consider an application from a candidate not fulfilling the above criteria; requests for such exemptions should be in the form of a personal letter addressed to The Secretary to accompany the submission for consideration. The Commissioners' decision, which is made after the closing date for submissions, will be final.
*** Please note that exemptions are rarely granted and then normally only for challenging personal circumstances. The burden rests with the applicant to provide compelling evidence that the proposed research cannot reasonably be undertaken at any other eligible UK host**

11. There is an expectation from the Commissioners that candidates do not apply to remain at their current institutions, even when it is not their PhD institution. However, in such cases, there is a text box (250 words) within the application form to outline justifications for staying

12. A Fellow may not be debarred from holding another award or receiving other contributions towards support, but the Commissioners must be informed. They may, at their discretion, modify the value of the Fellowship or, where the other award is substantial and made before the Fellowship commences, withdraw their offer if the candidate decides to accept the alternative.

Status and benefits

There are two possible arrangements for taking on a Fellowship:

13. In the first, Brunel Fellows holding their Fellowship in the UK may, where it is mutually agreeable to the Fellow and their host institution, become *employed* by that institution. In such cases the Commission will make a grant to the host institution sufficient to cover full payroll cost (i.e. salary, employer's national insurance, USS contribution, apprenticeship levy) throughout the tenure of the Fellowship. All overhead costs are to be met by the host institution. It is expected that Fellows will be appointed at a point on the postdoc pay scale appropriate to their experience and (subject to satisfactory progress) will receive an annual increment equivalent to one spine point plus any inflationary uplifts to the postdoc pay scale agreed by their host university. Host institutions will be asked to confirm the anticipated full payroll cost of the Fellow at the start of each academic year so that the Commission's contribution can be calculated and will be required to provide a statement of account at the end of the Fellowship and repay to the Commission any surplus contribution. The Commission's contribution will be payable quarterly in advance, to the host institution's bank account. The host institution will be responsible for complying with tax and national insurance obligations. If a Fellow withdraws from the Fellowship at any stage, or ceases to be employed by the host institution, the Commission will be entitled to claw back any amounts paid to the host institution that relate to periods after the date of withdrawal / last date of employment (and for these purposes quarterly payments are to be interpreted as applying evenly to the quarter to which they relate).

14. In the second, Brunel Fellows have the status of *self-employed* visiting researchers at their host institution. Fellows holding their Fellowship in the UK will receive a stipend equivalent to the grant that would be payable to the host institution were the Fellow to hold the Fellowship on an employed basis as described above, with annual increments and inflationary uplifts calculated as above (subject to satisfactory progress). The stipend payable to Fellows holding their Fellowship overseas will be based on that which would be payable were they to hold the Fellowship at an equivalent UK institution and will be fixed on a case by case basis. Stipends are reviewed annually and will be payable quarterly in advance, directly to the Fellow's bank account. Stipends and any other assistance provided will be subject to taxation and Class II & IV National Insurance contributions (and / or such local taxes as may be applicable where Fellows are based outside the UK). Fellows will be responsible for ensuring they meet their tax and national insurance obligations. Fellows will also be responsible for any pension provision they choose to make. If a Fellow withdraws from the Fellowship at any stage the Commission

will be entitled to claw back any amounts paid to the Fellow that relate to periods after the date of withdrawal (and for these purposes quarterly payments are to be interpreted as applying evenly to the quarter to which they relate).

15. Applicants must indicate whether they wish to hold the Brunel Fellowship on the employed or self-employed basis on the application form. Where applicants intend to hold the Fellowship as an employee of their host institution, they must ensure that the host institution provides the institutional approval requested at paragraph 18 below as part of the application process. Failure to do so will render the application invalid.

16. Expense Allowance
Brunel Fellows are entitled to an expense allowance of £10,000 pa that can be put towards other costs associated with their research, including (but not limited to) books, laptops, software, consumables and travel to present at relevant conferences

    Reimbursement for expenses incurred is typically claimed by the Fellow direct from the Commission; alternative arrangements can be made on a case by case basis where expenses will be incurred via the University. **These arrangements must be agreed with the Commission prior to the commencement of the Fellowship**. The Commission reserves the right to refuse reimbursement where expenses are not related to the fellowship research project or are otherwise unreasonable.

17. Fellows are entitled to maternity, paternity, adoption and sick leave in line with the standard policies of their host institution and the Fellowship will be automatically extended to account for these. The maximum extension allowed is two years in aggregate after which the Fellowship will automatically terminate. Additional direct payroll costs arising will be met by the Commission.

Requirements

18. The Head of Department of the Institution at which the Fellowship is to be held must furnish the Commission with a letter of acceptance **as a part of the application process**. The letter will confirm that in the event of the applicant being awarded a Fellowship:
    he/she will be admitted into the Institution to pursue the proposed research project, that the Institution has in place all resources, space, funding and equipment, to enable the success of the research project, that the Institution approves of the proposed project, and that the Institution undertakes to inform the Commission of any departures from the basis on which the Fellowship has been awarded. It will further explain why the Institute chosen is a good fit for the candidate and the proposed research project.

    In addition, where there is more than one applicant wishing to be hosted at the department, the Head of Department is asked to rank the candidates.

    The Head of Department ranking will be used as a guide by the assessor. All applications will be continue to be assessed at the same time. We would expect candidates to be ranked as a combination of their research project proposal and your evaluation of them as a potential postdoctoral researcher. A justification is not required, just the ranking with a line stating 'this candidate is ranked x/x applicants from the xx department at the University of xx'.

19. Where a Fellow is to be appointed an employee of the host institution, the host institution must additionally confirm its understanding that the Commission's contribution is strictly limited in accordance with paragraph 13 above and that the host institution accepts responsibility for any balance of costs arising. The host institution must also confirm that the Fellow will be admitted as a full time member and normal employee of the institution. Such confirmations must be provided as part of the application process and must comply with the host institution's formal institutional approval process.

20. At the end of the first and second years of the Fellowship, Fellows are to report to the Commissioners on the progress of their work, including comments from their supervisors. These reports will inform the Commission's decision on renewal of the Fellowship.

21. At the end of the Fellowship, a Fellow shall provide a report of the progress made in their research.

22. The Commission lays no claim to intellectual property arising from the research conducted during the holding of a Fellowship.

Application

23. Application is through website online submission https://1851awards.flexigrant.com

24. Each application **must include two references;** neither of these should be from the Institution at which the Fellowship will be held, or from a collaborator involved in the proposed project, and it is expected that one will be from the candidate's PhD supervisor. Normally at least one will be from a UK institution. The application will not be deemed complete until the references have been submitted using the secure online reference process.

25. Confidential login instructions are sent to referees by automatic email generated by the candidate during the application process. Referees are asked to submit their references online before the closing date for the application to be valid. References should be written in plain text and should not exceed 450 words. Referees are particularly asked to comment on the candidate's ability to undertake original research. The references will be **given in confidence** and will not be available to the applicant.

26. The letter from the Institution at which the Fellowship is to be held, which **must** cover the points detailed in 18 above in all cases and include the institutional approvals detailed in 19 above where the applicant intends to hold the Fellowship as an employee of the host institution, should be uploaded as a PDF document in the online submission process where indicated. The letter will be **given in confidence** and will not be available to the applicant.

27. Great importance is attached to the ability to communicate clearly with the general public. **The Summary Statement will therefore merit particular attention.** It should be written in terms that will be understood by a reader with a science or engineering background, but one lying outside the immediate specialism, and should provide an overview of the proposed research, of its objectives and of its originality.

28. The Details of the Proposed Research should be uploaded as a PDF document, approximately 750 words in length and no more than 2 pages, including diagrams and literature references. In particular the outline should emphasise the way in which the proposed project is different from previous research. It should explain the research reasons for the selection of the Institution at which the Fellowship is to be held. It is the applicant's responsibility to ensure that the referees' references and the acceptance certificate have been received / uploaded before final submission, as the Commission will be unable to accept partially completed applications. **Completed applications must be submitted by 20 January 2027 by 12 noon GMT**.

29. During the assessment process, and prior to the final selections, all candidates will be informed by e-mail whether or not they have been shortlisted. References will be authenticated and appointments to the Fellowship will be made during May/June 2027.

Data Protection

30. The 1851 Royal Commission is a data controller under the General Data Protection Regulation. The Commission is registered with the UK Information Commissioner's Office with registration number Z8305954. The Commission may collect and process personal data about you, your referees, your proposed supervisor and members of the academic department at which you wish to hold your Fellowship as part of your Fellowship application. Full details of the types of data collected, the ways in which the data are processed and the legal basis for the processing are included in the Privacy Notice.

Use of Artificial Intelligence

31. For the 1851 Royal Commission's policy on use of AI in applications and assessments, please view our policy ***here***. Please read this policy before applying as applications which do not comply may be rejected.

John Lavery
Secretary
Royal Commission for the Exhibition of 1851
Sherfield Building
Imperial College
London SW7 2AZ

Telephone: +44 (0)20 7594 8790
E-mail: royalcom1851@imperial.ac.uk
Website: www.royalcommission1851.org.uk