**RAEng Fellowship application template**

Cardiff University is able to submit only three applications for Fellowships through this scheme (plus one additional application from an applicant who is from a group that is persistently underrepresented in engineering)

**Guidelines for filling out the Cardiff University application template**

This form is based upon the first stage of the application to RAEng Research Fellowship. General information and guidance on the RAEng Research Fellowships is available in the following web pages:

<https://www.raeng.org.uk/grants-and-prizes/support-for-research/raeng-research-fellowship/how-to-apply>

<https://www.raeng.org.uk/publications/other/research-fellowships-edr-guidance-notes>

It is important that you read the guidance notes in conjunction with writing information in this template.

*Please type your information into the boxes provided and return by email to:*

[PSE\_Research@cardiff.ac.uk](mailto:PSE_Research@cardiff.ac.uk) **on Friday 31st August 2018.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Applicant Information | | | | | | | | | | | | | | | | | |
| Applicant Name | | | |  | | | | | | | | | | | | | |
| Email Address | | | |  | | | | | | | | | | | | | |
| School | | | |  | | | | | | | | | | | | | |
| Scheme | | | | *(Research Fellowship OR Engineering for Development Research Fellowship)* | | | | | | | | | | | | | |
| 1. **Applicant Profile** | | | | | | | | | | | | | | | | | |
| **2a. PhD award date** | | | | | | | | | | | | | | | | | |
|  | | PhD awarded  Date: | | | |  | PhD **to be** awarded  Expected date of PhD award: | | | | |  | PhD awarded >4 years ago  Date:  See 2b below | | | | |
| ***2b.*** *Should your PhD have been awarded more than four years prior to the submission deadline (24th September 2018), provide details of the circumstances which merit the relaxation of the four year limit.* | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | |
| **2c. Interview availability – 29th, 30th April, 1st, 2nd or 3rd May 2019** | | | | | | | | | | | | | | | | | |
|  | Available | | | | | | | |  | Not available | | | | | | |
| **2d. CV [max 3 pages – attach as a separate document]** | | | | | | | | | | | | | | | | | |
| **2e. Profile of applicant [max 600 words]** | | | | | | | | | | | | | | | | | |
| *Outline how your skills, experience and track record would enable you to successfully complete the 5-year Research Fellowship and become a future research leader in your chosen field. You may also wish to include:*  *• Any relevant collaborative work and visits with other researchers, research organisations, industries or other beneficiaries, both nationally and internationally.*  *• Impact of your research on improving the quality of life.*  *• Any successful grant applications and their values.*  *• Any other information that demonstrates your independence and your track record as a researcher.*  *• Career goal through the Research Fellowship* | | | | | | | | | | | | | | | | | |
| **2f. Esteem indicators [For INTERNAL REVIEWERS ONLY – see Page 13]** | | | | | | | | | | | | | | | | | |
| **Esteem indicator** | | | | | | | | | **Notes** | | | | | | |  | |
| Number of peer-reviewed papers | | | | | | | | | *Not including conference papers* | | | | | | |  | |
| Number of citations | | | | | | | | |  | | | | | | |  | |
| Number of papers presented conferences | | | | | | | | | *Includes national and international conferences* | | | | | | |  | |
| Number of invited papers and/or presentations | | | | | | | | |  | | | | | | |  | |
| H Index | | | | | | | | |  | | | | | | |  | |
| Number of patents filed or pending | | | | | | | | |  | | | | | | |  | |
| Number of patents licenced | | | | | | | | | *Your patents, licenced to others* | | | | | | |  | |
| Number of undergraduate students supervised | | | | | | | | | *Include both current and past students* | | | | | | |  | |
| 1. **Project details** | | | | | | | | | | | | | | | | | |
| **3a. Title** | | | | | | | | |  | | | | | | | | |
| **3b. Abstract [max 300 words]** | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | |
| 3c. Start Date | | | | |  | | | 3d. End date | | |  | | | | | | |
| 3d. Subject category | | | | | | | | | | | | | | | | | |
|  | | | Civil, construction and environmental | | | | | |  | Materials and mining | | | |  | Chemical and process | | | |
|  | | | Aerospace | | | | | |  | Transport and mechanical | | | |  | Manufacturing and design | | | |
|  | | | Electrical and electronic | | | | | |  | Energy and Power | | | |  | Medical and bioengineering | | | |
|  | | | Computing and communications | | | | | |  |  | | | |  |  | | | |
| 3e. Keywords | | | | | | | | | | | | | | | | | | | | |
| *The keywords help in identifying reviewers. You may wish to include relevant words from the subject categories above.* | | | | | | | | | | | | | | | | | | | | |
| 3f. List all external organisations that you will be collaborating with as part of the project. | | | | | | | | | | | | | | | | | | | | |
| *Please list any collaborators from universities (UK, international) and industry. This will help us avoid any conflicts of interest during the assessment process. You should not explain the extent or nature of the collaboration here, as that is covered later.* | | | | | | | | | | | | | | | | | | | | |
| **4. Case for Support** | | | | | | | | | | | | | | | | | | | | |
| ***4a.* Goals and objectives [max 200 words]** | | | | | | | | | | | | | | | | | | | | |
| *Please state the goals and objectives for your research project. You should include details on how novel, realistic and ambitious the project is. Please note that if awarded your performance will be assessed against these objectives.*   |  | | --- | | **4b. Timeliness and novelty [max 250 words]** | | *Describe why this research is important and why it should be conducted now.* | | | | | | | | | | | | | | | | | | | | | |
| ***4c.* Methodology [max 1500 words]** | | | | | | | | | | | | | | | | | | | | |
| *Please provide a detailed description of the exact work to be completed. Describe the programme of work, indicating the research to be undertaken and the milestones that can be used to measure progress. Detail the methodology to be used in pursuit of the research and justify this choice. What similar research is being/has been undertaken nationally and internationally and how does your project differ?*   |  | | --- | | **4d. Images and diagrams [maximum one page – attach as separate document]** | | *Include any images and/or diagrams related to your project. Attach a single document with the images and diagrams in the order you would like them viewed. You should reference them in your response to the methodology questions.* | | | | | | | | | | | | | | | | | | | | | |
| **4e. Reference list [max 700 words]** | | | | | | | | | | | | | | | | | | | | |
| *List the reference material referred to in your methodology. Where possible include web-links to any open access articles, to help reviewers in locating the articles quickly. You may want to highlight the most relevant ones.* | | | | | | | | | | | | | | | | | | | | |
| 4f. **How does your research proposal meet the ODA guidelines? (question for the application for the ‘Engineering for Development Research Fellowship’ only) [max 500 words]** | | | | | | | | | | | | | | | | | | | | |
| *Provide an ODA justification statement. You should consider using the questions below when preparing this statement.*  *1. Which country/countries on the Development Assistance Committee (DAC) list will directly benefit from this research proposal?*  *2. How is your proposal directly and primarily relevant to the development challenges of the country/countries?*  *3. How do you expect that the outcome of your proposed activities will promote the economic development and welfare of the country/countries?*   |  | | --- | | **4g. Project timeline [separate attachment. All separate attachments are to be uploaded as a single pdf document only, so please collate pages where necessary.]** | | *You are required to upload a Gantt chart of equivalent to show the schedule of activities for the duration of the research fellowship. Please ensure all the milestones are clearly shown. You may show how the work packages and your collaborations will interact.*   |  | | --- | | **4h. Project management [max 200 words]** | | *Describe how your research proposal will be managed. You may wish to refer to the Gantt chart. You should include suitable milestones and identifiable deliverables as your progress will be reviewed against this plan.* | | | | | | | | | | | | | | | | | | | | | | |
| **4i. Risks [max 200 words]** | | | | | | | | | | | | | | | | | | | | |
| *Risks will not necessarily be perceived as weaknesses. You should use this opportunity to demonstrate your management skills and awareness of potential problems.* | | | | | | | | | | | | | | | | | | | | |
| |  | | --- | | **4j. Collaborations [500 words]** | | | | | | | | | | | | | | | | | | | | | |
| *Provide details of any collaborations you intend to create and/or maintain during the Research Fellowship. Use this opportunity to show how you are connected to a wider network than just the host institution, in order to access appropriate skills and expertise to enhance your research and its impact. Explain who you will/want to work with and why.*  **7. Letters of support [optional section but it is your 3 letters and to be collated in a single pdf document with other attachments]** | | | | | | | | | | | | | | | | | | | | |
| **4k. Letters of support (optional section but it is your opportunity to demonstrate wider support for you and your project)** | | | | | | | | | | | | | | | | | | | | |
| *If you do not currently work at your chosen host institution, then your current employer is excluded from submitting a letter of support. However, they can be referred to in the previous question on collaborators.*  *Letters of support must:*  *- be on headed paper and clearly state who they are*  *- be external collaborators i.e. people and organisations NOT working at the host institution and its affiliates*  *- be signed*  *- confirm that the author knows the applicant*  *- explain why they are interested in the project*  *- provide details on what form the collaboration will take.*  *- clearly demonstrates the nature of the collaboration and how it will be beneficial to you and the project*  *- be no more than two pages*  *As reviewers are asked to assess these alongside your plans for collaboration, aim for quality over quantity and keep the letters short and concise to better enable the reviewer to identify the salient information. A bullet-point list of contributions is a highly effective method of making the reviewers’ role easier.*  ***Please do not submit more than three relevant letters of support and ensure they are collated into a single pdf document.*** | | | | | | | | | | | | | | | | | | | | |
| **4l. Beneficiaries and impact [max 200 words]** | | | | | | | | | | | | | | | | | | | | |
| *What are the benefits of this research and for who? Can you quantify the extent of the benefits/number of likely or potential beneficiaries? Can you identify specific groups in society? If the benefits do not directly relate to wealth creation and/or to improving the quality of life, give details of other beneficiaries and explain their importance.*   |  | | --- | | **4m. Exploitation [max 200 words]** | | *Describe the ways you plan to exploit your research, including the industry and public sector partners that you will collaborate with to achieve this.* | | | | | | | | | | | | | | | | | | | | | |
| **4n.****Dissemination and Public Engagement [max 200 words]** | | | | | | | | | | | | | | | | | | | | |
| *Identify the proposed methods of dissemination and public engagement. Identify the engagement activities with audiences beyond the research and engineering ‘worlds’. Participation in public outreach activities is an important element of a Research Fellowship.* | | | | | | | | | | | | | | | | | | | | |
| **4o. Alignment with GCRF requirements (Optional) [max 500 words]** | | | | | | | | | | | | | | | | | | | | |
| *Describe how your proposed research aligns to GCRF requirements.* | | | | | | | | | | | | | | | | | | | | |
| **4p. Choice of host institution [max 200 words]** | | | | | | | | | | | | | | | | | | | | |
| *Explain your choice of host institution. You may wish to comment on the facilities and local expertise which will be available to you. You should also cover what experience you have had and/or plan to gain from other institutions and alternative working practices. For example, any time spent on secondment or on extended visits.* | | | | | | | | | | | | | | | | | | | | |
| **4q. Mentoring [max 150 words]** | | | | | | | | | | | | | | | | | | | | |
| *Awardees will have a Fellow of the Academy as a Mentor to offer advice and guidance for the duration of the Research Fellowship. What specific areas would you like advice on? What are the key attributes you would look for in a Mentor and how do you think they would be able to help you? This is your opportunity to request support to grow into new areas.* | | | | | | | | | | | | | | | | | | | | |
| **4r. Ambitions and future plans [max 200 words]** | | | | | | | | | | | | | | | | | | | | |
| *Describe your future career plans and ambitions, including the anticipated size of your team, your reputation and employment status. How will you progress through the Research Fellowship? How are your future career plans and ambitions associated with the proposed research goals and objectives?* | | | | | | | | | | | | | | | | | | | | |
| **5. Statement of support and declaration** | | | | | | | | | | | | | | | | | | | | |
| *Your Head of Department should complete a statement in support of the application* | | | | | | | | | | | | | | | | | | | | |
| **6. Justification of costs [max 400 words]** | | | | | | | | | | | | | | | | | | | | |
| *Please provide a descriptive breakdown of the funding requested. Ensure you have adhered to the guidance provided for allowable costs as detailed in this document. The justifications should be a narrative description of what resources are being requested and why. It should include:*   * *• All necessary justifications for costs included in the costs table.* * *• To what extent the equipment requested will be used by other researchers and what equipment you are not requesting funding for (or for which you are requesting funding at a reduced rate) because suitable equipment is already available to you.* * *• What costs will be covered by other sources, e.g. industry or existing grants and so are not being requested as part of the application.*   *• If appropriate, an explanation of why you wish to work part-time and at what rate.* | | | | | | | | | | | | | | | | | | | | |

**Esteem indicators**

This table lists some of the performance indicators by which the progress of awardees is assessed. Being at an early stage in their career applicants are not expected to be able to complete all the fields listed. This table should provide a quick summary of your achievements to date. You may wish to provide further explanation of these achievements in your CV and your response to the ‘Profile of applicant’ question above.

As an indicator of the level of competitiveness of the scheme, and of how much awardees have achieved at this relatively early stage of their career, the table below details the answers taken from the last three years of awardees. The ‘Typical Average’ has had the anomalous maximum values removed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Esteem indicator** | **Notes** | **Minimum** | **Maximum** | **Typical average** |
| Number of peer-reviewed papers | *Not including conference papers* | 3 | 24 | 11.4 |
| Number of citations |  | 13 | 1171 | 101.7 |
| Number of papers presented conferences | *Includes national and international conferences* | 2 | 56 | 17.1 |
| Number of invited papers and/or presentations |  | 0 | 27 | 4.1 |
| H Index |  | NA | NA | NA |
| Number of patents filed or pending |  | 0 | 8 | 0.4 |
| Number of patents licenced | *Your patents, licenced to others* | NA | NA | NA |
| Number of undergraduate students supervised | *Include both current and past students* | 0 | 11 | 2 |