



Research Chair in Emerging Technologies

Guidance Notes and Instructions on How to Apply

Background Information

This Research Chair will enable an eminent research professor to undertake work at an ultra-precompetitive level and have the freedom to develop an area of technology which will ultimately grow into something that industry could take forward, possibly as a conventional Research Chair and associated research group.

The Chair will be established for a period of ten years, and will be subject to an annual review of achievement with a major review after the first five years. By that stage, industrial interest should have been registered and prospects for the future should begin to emerge. From the outset, the chair-holder will be encouraged to make industrial connections, thereby stimulating interest and dialogue of mutual benefit.

Please note that the applications will be invited from the academic sector only and will be a full-time professorial appointment in any engineering-related subject that is considered 'emerging'. The Academy does not wish to be prescriptive in defining an "emerging technology" except to suggest that it is one that is immature and hence unlikely to attract financial support from industry. Some example areas that have been suggested are Hybrid electronics (organic-inorganic) & (silicon-biological); Systems and synthetic biology; Future generation materials and devices; Quantum computing; BUT it is for the university and the candidate to propose and justify the area of engineering in which they consider there to be a technology appropriate for this scheme. A key test in the selection procedure will be the question 'Could this proposal have come forward under the Academy's Research Chair's programme, co-funded by industry?' If the answer is yes then the application would be deemed inappropriate for this scheme.

The Chair holder (the Incumbent) is expected to develop and lead a research group, the members of which will be encouraged to publish the results of their research as widely as possible to gain international recognition both for themselves and for the group in which they are based. The Incumbent should be freed from all teaching and administrative duties but, if necessary at all, these should be limited to four hours per week.

The Academy will appoint a Mentor, who is a Fellow of the Academy with expertise of particular relevance to the programme of research and so will be able to offer independent advice and guidance. The Mentor will advise the Academy in all matters pertaining to the Incumbent.

Each university may submit **a maximum of two applications**. It is therefore advised that you contact your Research Office or equivalent, as there may well be an internal selection process. The applicant need not be employed by the university at the point of application.

Funding Offered and Duration of Award

The Academy will fund 80% of the Full Economic Costs (fEC) up to a maximum of £120,000 a year. The host university is expected to provide a well-found laboratory and administrative support for the Incumbent. Funding is provided for ten years.

Incumbents are encouraged to seek additional funds from Research Councils, industry and other sources as appropriate in order to fund their research group. A measure of success may be whether the group is self-sustaining after the ten-year period of Academy funding.

How to Apply

The assessment process will consist of three stages. Stage 1 requires an outline proposal summarising the nature of the emerging technology, the applicant's CV, and a letter of support from the host university. Stage 2 will be a full proposal covering the plan for the entire 10 year term, the expected benefits and outcomes. Both Stage 1 and Stage 2 should be submitted electronically. The final stage will be an interview by Academy Fellows.

Stage 1: Preliminary Proposal

The Stage 1 Preliminary Proposal contains 4 parts.

Part 1 - The applicant should submit an outline case for support indicating what area of emerging technology they wish to pursue and why. Particular attention should be paid to stress the originality of the case in the context of "emerging technology". The Stage 1 proposal should not exceed four (4) pages of A4.

Part 2 - The proposal should be accompanied by a letter of support from the Head of Department of the university where the Chair will be held. If the Head of Department is the applicant then the letter of support should be from a senior member of Faculty staff. It should be no more than 2 pages in length.

Part 3 - A brief CV of the nominated candidate must be included (no more than three pages)

Part 4 - Applicants should complete and submit a Diversity Monitoring Form along with their application. Please note: The information disclosed in this form will be treated confidentially and will only be used internally for statistical/monitoring purposes.

A cross-disciplinary sub-group of the Academy's Research and Secondments Committee will be convened to assess the submissions and a short-list of proposals will be selected to be taken to the next stage. During the previous appointment process for this scheme held in 2008, 29 applications were received and 6 applicants were selected to progress to Stage 2. Applicants will be informed of the Panel's decision within 4 weeks of the closing date.

The closing date for the initial submissions is **Friday 23rd March 2012**. Please submit the completed application to research@raeng.org.uk – your submission will be acknowledged shortly afterwards. Please note that we will only accept **two submissions per university**. If we receive more than two applications to be hosted by the same university then the university will be asked to withdraw a suitable number of applications.

Stage 2: Full Proposal

Part 1: Candidates selected from the preliminary stage will be invited to submit a full proposal. This should be no longer than 12 pages of A4. This should build more substantially on the areas covered in the outline case for support and should, inter alia, include the following:

- Outline plan for the research programme
- Basis for the area of technology identified and how this is seen as an “emerging technology”
- Potential for impact and benefit to the UK
- Qualities and capabilities of the university department hosting the Chair and how this activity relates to the research strategy of the Department or School
- Outline of capabilities and achievements of the nominated candidate
- Plans for outreach/public engagement

Part 2: Written references from two nominated referees. Please note that it is the candidate's responsibility to ensure that their referees send their comments to us by the application closing date.

Part 3: A detailed CV

The Stage 2 proposal will be collated with the Stage 1 Letter of Support and sent for peer review. The Academy will select three of its Fellows to review each proposal.

Please note that the Stage 1 case for support will **not** be sent for peer review again at this stage and so applicants may wish to repeat and elaborate on those topics covered in Stage 1.

A cross disciplinary sub-group of the Academy's Research and Secondments Committee will be convened to assess the Stage 2 Proposals and select a shortlist of candidates for interview. During the previous selection process for this scheme, five candidates were selected for the interview stage.

The submission deadline for Stage 2 will be approximately one month after the results of Stage 1 are notified. Stage 2 will be submitted electronically.

Stage 3: Interview

Short-listed candidates will be invited for interview by a panel of Academy Fellows selected from our Research and Secondments Committee and the wider Fellowship as appropriate.