Call for proposals for

*ISIS Facility Development and Utilisation Studentships*

***Applications for joint ISIS-Diamond studentships should be made through the Diamond submission process and not using this form***

***What are ISIS Facility Development and Utilisation Studentships?***

ISIS wishes to co-fund PhD studentship projects which include an element of facility development or are a continuation of a project previously funded by this call. Studentship projects can be within any of the science areas studied by neutron scattering or muon spectroscopy at ISIS and should have a strong science case, but they must include facility-development or or are a continuation of a project previously funded by this call. This may include technique, software or sample environment development.

Software projects should provide evidence of how sustainable and usable the developed software will be beyond the lifetime of the project, and technique or sample environment should provide evidence of the wider applicability of the project within the community beyond the immediate PhD student project. Letters of support from the community demonstrating the wider applicability of projects are encouraged. It is recommended that you contact Martin Jones (martin-owen.jones@stfc.ac.uk) ahead of submitting a proposal to discuss the nature of your facility development. Proposal reviewers will wish to know that the proposed facility development can reasonably be carried out within the duration of a studentship, and that other resources required for the development (e.g. any significant capital or resource costs required) are available from other sources.

***How many studentships are available?***

ISIS will make available funding for approximately 5 half studentships, together with up to 2 joint with Diamond. Projects in collaboration with the Diamond light source and partly supported by Diamond must be applied for via the DLS studentship process found at <https://www.diamond.ac.uk/Careers/Students/Studentships.html>. The ISIS facility studentship form cannot be used for joint proposals, please see the section ‘**Joint ISIS and Diamond projects**’ below for further details.

***Who may apply?***

Any academic belonging to a UK university with the authorisation to supervise PhD students may apply. We assume that the applicant will be the university PhD supervisor. An ISIS staff scientist *must* be a co-applicant and co-supervisor, and play a full and equal role in the studentship project and supervision, including the interviewing of potential candidates.

All applicants *must* provide evidence with their application that they have already secured a 50% contribution of project costs.

The student *must* spend *at least* one year of their time at ISIS (at RAL for joint ISIS-Diamond studentships), in addition to normal short trips for experiments, during their PhD (in a schedule to be arranged by mutual agreement between the ISIS and university supervisors). Standard PhD progression qualifiers (1st / 2nd year reports etc.) may be used to assess the degree of interaction with the ISIS facility. If it is deemed insufficient interaction has occurred, STFC reserves the right to withdraw funding.

***What will ISIS provide?***

ISIS will provide up to 50% funding for each studentship. Matching funds from other sources must be secured by the applicant and proof of funding submitted with the application.

Up to £2000 per year per student for travel and consumables will also be available for research training expenses including the cost of travelling to and from the Rutherford Laboratory. These funds are to be claimed against actual receipted expenditure provided by the student and will not be paid directly to the University. The student will need to be registered at the host university, and ISIS will make payments to the university to cover the ISIS portion of the stipend and fees on receipt of invoices from the university. ISIS (STFC/UKRI) will set up an agreement with the host university which specifies a schedule for the invoices and payments to the university to cover the ISIS contribution to the studentship, together with other details of the working arrangements for the studentship.

***How long are the studentships for?***

Studentships should start in autumn 2022 and can be for between 3 and 4 years. Studentship posts not filled by end of 2023 will be withdrawn.

***How to apply?***

The completed application form, together with a 2-page project description of the studentship science project and facility development component, letters of support and proof of co-funding should be emailed to Martin Jones (martin-owen.jones@stfc.ac.uk) by 6pm on the 22nd September 2021. Project description must fit within the two page limit and must contain the following headings:

* **Background** Background information of the proposal including why it is timely and interesting, and the goals of the project.
* **PhD Project** The scientific project to be undertaken by the PhD student including important milestones.
* **Facility Development/Utilisation** How the project will either develop the facility or profitably utilise facility development previously funded under this call, including details of wider use beyond the immediate research team and legacy applications.
* **Partnerships** Details of partnerships, 1) within the Rutherford Appleton Laboratory 2) with industry and 3) with other academic institutions / ISIS users.
* **Previous Project Outcomes** Proposals from applicants who have previously received an ISIS Facility Development Studentship must include an additional page in their proposal submission listing the outcomes from the previous award. This must include the status of the facility development component of the project and its usage; it should also include the current status of the science project and any publications, presentations, and further grant applications arising from the original award. Such applications should only be applied for in the final year of a previous award or once the previous award has completed.

**When should applications be made?**

The deadline for applications for this call is 22nd September 2021.

***Selection criteria for ISIS to provide funding:***

The following criteria will be used for assessment (in order of significance)

**The quality of the science (40%).** External referees chosen from the ISIS facility studentship referees panel will carry out assessment of this criterion (/40). Exceptional proposal will be expected to show world leading / ground breaking research with high potential impact academically and/or industrially, likely to result in publication in very high impact general journals (Nature, Science etc.) and/or top-rated journals for individual fields (Advanced Materials, Energy and Environmental Science, Phys Rev B etc.).

**The quality of the facility development aspect and the benefit to the ISIS community (40%).** Appropriate development projects will be of wider use to the ISIS community beyond the immediate PhD project and may focus on instrument, technique, sample environment or software development. Purely scientific projects or those with weak development aspects will be rejected. Letters of support from institutions other than that of the applicant(s) demonstrating the significance of the project to the wider ISIS community are welcomed and may be included in the application. The appropriate ISIS group leader will assess facility development. Continuation proposals must identify how the apparatus will be used in the new proposal, including any future development, and the significant outcomes from the previous award.

**The quality of the PhD training (10%).** What will the student undertake during their PhD and how will the combination of ISIS and University resources provide a rewarding and beneficial experience for the student. External referees chosen from the ISIS facility studentship referees panel will carry out assessment of this criterion.

**Partnerships (10%).** Partnerships with other RAL institutions (Diamond light source, Central Laser Facility, the Research Complex at Harwell, the Harwell Imaging partnership, RAL Space etc.), government laboratories (The Hartree Centre, NPL etc.) or private industry will be viewed favourably, especially where such links are supported through additional funding. Submissions that include visiting positions for ISIS staff as part of the proposal will be viewed positively. Supporting letters from additional project partners must be included. The ISIS facility studentship panel will award a mark for partnerships at the panel meeting in November.

***For submissions from applicants who have had a previous facility development studentship, the outputs from the previous project, in terms of the facility development component and science component, will also be taken into account when evaluating the new proposal.***

***Selection process:***

Proposals will be sent for external review and to ISIS science group leaders. Once scores from reviewers and group leaders have been received, a selection panel consisting of ISIS senior staff and members of the ISIS user community will rank the proposals for potential funding. In addition to the above selection criteria, ISIS will seek a breadth of science areas and partnering universities when making a final decision on which applications will be supported, and will also be concerned regarding diversity of successful applicants.

The panel will meet to review proposals soon after the application deadline, and applicants will be informed in late 2021 or early 2022, after which a list of funded project titles and PIs will be published.

***Joint ISIS and Diamond projects.***

Joint ISIS and Diamond projects proposals **should be submitted to the Diamond call for studentships only**. Full details of the Diamond submission process can be found here https://www.diamond.ac.uk/Careers/Students/Studentships.html.

Projects that link technique development across both the Diamond and ISIS facilities may also be funded and are welcomed. These proposals must meet all the criteria for ISIS-only proposals, are expected to have PhD supervisors from the University partner, the Diamond Light Source and the ISIS facility and will be reviewed as part of the Diamond and ISIS Review Panels composed of Diamond and ISIS staff. Successful Diamond and ISIS supervisors will then be invited for interview by a Review Panel, again composed of Diamond and ISIS staff and Studentships awarded on the basis of these interviews (please note, typically only Diamond and ISIS supervisors will be interviewed). Interviews will focus on the selection criteria detailed above, the training provision for the PhD Student and the role of the Diamond and ISIS supervisors to the PhD project.

Proposals seeking joint Diamond and ISIS supervisors should be submitted to the Diamond call for Studentships **only**. The request for joint Diamond and ISIS supervision must be indicated on the application form and in the case for support. Joint ISIS and Diamond proposals should be via the online Diamond proposal form and the science case must comprise a **three page** project description. Joint ISIS and Diamond proposals should clearly demonstrate why it is a joint proposal and of the three pages, half of one page must detail the X-ray aspects of the PhD project and half of one page must detail the neutron aspects of the PhD project.

ISIS and Diamond recognise that strong partnerships between the institutions are facilitated by joint projects and therefore joint proposals will be considered favourably by the committees from ISIS and Diamond.

Accepted projects will be funded 1/4:1/4:1/2 ISIS:Diamond:University (1/3:1/3:1/3 funding ratio is also possible).

***Proposal information:***

Applicants should provide the information requested on the application form. In addition, a Gantt chart or project plan and a description of the research project to be undertaken should be provided. The description of the research project should take into account the selection criteria given above and should be a maximum of two pages (three pages for continuation proposals).

Certain information (applicant and institution, general project description) may be made public by ISIS for successful proposals.

Application for an *ISIS Facility Development Studentship*

|  |  |
| --- | --- |
| **Project Title** |  |
| **Name of applicant (university supervisor)** |  |
| **University** |  |
| **Department** |  |
| **Postal address** |  |
| **Phone number** |  |
| **Email** |  |
| **ISIS co-supervisor** |  |
| **Joint with Diamond** | ***Applications for joint ISIS-Diamond studentships should be made through the Diamond submission process and not using this form*** |
| **Proposed student start date** |  |
| **Length of studentship required** |  |
| **Funding requested from ISIS (ISIS will provide up to 50% of the costs of the studentship including fees). Please complete the table on the right to show funding requested.** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| £k | Yr 1 | Yr 2 | Yr 3 | Yr 4 |
| ISIS |  |  |  |  |
| *Partner* |  |  |  |  |
| T&S  |  |  |  |  |

 |
| **Funding source(s) for non-ISIS part of studentship..** |  |
| **Is a particular student being considered for this post? If so, please provide details (name; (likely) degree result; *etc*.)** |  |
| **Please provide a short (200 word) description of the project suitable for a general audience including suitable science area keywords. (For successful applications, this may be made public).** |  |

**In addition to the above form, please provide a description of the proposed research project. The description must include the relevance of the project to this funding scheme using the selection criteria described and be of a maximum of two pages. Continuation proposals must include an additional page highlighting previous project outcomes.**

**Please submit the application form and project description to** **martin-owen.jones@stfc.ac.uk** **by 6pm on 22nd September 2021.**