

Ada Lovelace Centre

Programme Development Studentships

1st November 2022

The Ada Lovelace Centre (ALC) has available a limited number of 50%-funded studentships available to UK universities to run from autumn 2023. A full description of this studentship scheme plus instructions on how to apply is available below. The deadline for proposals is 9th December 2022.

Important Dates

	Date
Call for Studentships	Opens 7 th November 2022
	Closes 9 th December 2022
<i>Application shortlisting</i>	December 2022
<i>ALC Panel Meeting</i>	January 2023
<i>Announcement of Results</i>	January 2023

What are ALC Programme Development Studentships?

The Ada Lovelace Centre provides skills and expertise for Research Data Management and Research Software Engineering, focussed on the requirements of the STFC central facilities – Diamond Light Source, ISIS Neutron and Muon Source, the Central Laser Facility and STFC Scientific Computing. The ALC enables researchers to maximize the scientific output from existing and planned investments in these facilities, reduce time to impact and reduce barriers to industry use, in the context of environmental sustainability.

ALC priority themes are

- Imaging/reconstruction (e.g. including ptychography)
- Simulation and modelling for data interpretation and facility operation
- Techniques and applications of machine learning
- Data/metadata management including open science
- Data analysis services (e.g. IDAaaS) including automation

though these are not exclusive.

Structurally ALC operates as a major programme within Scientific Computing. The ALC wishes to co-fund PhD studentships which can be within any of the science areas studied by one or more of the facilities, and should have a strong science case, but they must include a significant element of research software or data management development. Projects should provide evidence that the developed capabilities are intended to be sustainable and usable beyond the lifetime of the project, though the ALC can provide support to enable this.

Letters of support from the science and/or industrial community demonstrating the wider applicability of projects are encouraged. Reviewers will wish to know that the work 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?

The ALC will make available funding for of order 10 studentships with 50% funding.

Eligibility Criteria

ALC Programme Development Studentships should be co-supervised by a UK university academic and an appropriate staff member from one of the main ALC stakeholder departments (Diamond, ISIS, CLF and SCD). Any academic belonging to a UK university with the authorisation to supervise PhD students may apply as the university supervisor. An STFC/Diamond staff member *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.

The student *must* spend *at least* one year of their time at Rutherford Appleton or Daresbury Laboratory during their PhD, in a schedule to be arranged by mutual agreement between the STFC/Diamond and university supervisors. This is in addition to any normal short trips to facilities if there is an experimental aspect to the project. Standard PhD progression qualifiers (1st / 2nd year reports etc.) may be used to assess the degree of interaction with the ALC. If it is deemed that insufficient interaction has occurred, STFC reserves the right to withdraw funding.

Students will be asked to present their work at ALC student meetings during their projects. A final report on the outcomes of the project and its impact will be required at the end of the project.

What will ALC provide?

ALC will provide up to 50% funding for each studentship. Matching funds from other sources must be secured by the applicant.

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 Appleton or Daresbury Laboratory as appropriate. 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 ALC will make payments to the university to cover the ALC portion of the stipend and fees on receipt of invoices from the university. The ALC (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 ALC 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 2023 and can be for a maximum of 4 years.

How to apply?

The completed application form, together with a 2-page project description of the studentship science project including risk management and critical pathway for the PhD program, and the ALC programme development component, together with any letters of support should be emailed to robert.mcgreevy@stfc.ac.uk by the 9th December 2022. The project description must fit within the two page limit and must contain the following headings:

Background Background information for 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 should be described and must include details of risk management and the critical pathway of the research program.

ALC Programme Development How the project will develop research software/data management of benefit to ALC stakeholder organisations, including details of wider use beyond the immediate research team.

Letters of Support Letters of support from researchers and/or industries within the field may be included where appropriate. Demonstration of a wide potential user base and significant interest in the proposed development are encouraged.

When should applications be made?

The deadline for applications for this call is the 9th December 2022.

Selection criteria for ALC to provide funding.

The criteria for assessment are listed below and guidelines for marking issued to referees and panel members are given at the end of this document.

The quality of the science (40%). Proposals 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, or strong industrial significance.

The quality of the programme development aspect and the benefit to the wider community (40%). Appropriate development projects will be of wider use to the scientific community beyond the immediate PhD project. Purely scientific projects, unfeasible 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 community are encouraged and should be included in the application. An appropriate STFC/Diamond senior staff member will assess the programme development aspect.

The quality of the PhD training (20%). What training will the student undertake during their PhD and how will the combination of ALC and University resources provide a rewarding and beneficial experience for the student? The proposal must contain a description of the PhD critical path and risk management.

Selection process for ALC Programme Development Studentships:

Proposals will be sent for external review and to the relevant facility senior staff. Once scores from reviewers and staff have been received, a selection panel consisting of STFC/Diamond staff and members of the user community will rank the proposals for potential funding. In addition to the above selection criteria, ALC 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 January 2023, after which a list of funded project titles and PIs will be published.

Proposal information:

Applicants should provide the information requested on the application form (attached below). The description of the research project should take into account the selection criteria given above and should be a maximum of two pages.

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