Call for Proposals - NuSec Network PhD Studentships

Background

The second phase of the STFC Nuclear Security Science network (NuSec) begins in August 2019, and builds on the success of first phase of the network which ran from 2016 to 2019. During this period NuSec established an effective program of meetings, workshops and pilot projects to engage with the academic, industrial and government research communities working in Nuclear Security detection. The network successfully attracted strong support from these research communities, with network members representing approximately 20 Universities and 30 companies working in this sector. There has also been effective engagement with a large number of government departments who have an interest in Nuclear Security issues, through the network's End User Panel. The network ran two annual technical workshops, in September 2016 and 2017, covering the topics of Nuclear Detection Systems, and Algorithms and Autonomous Decision Making. In January 2018 the network hosted an invited workshop on *Alternative Technologies for Well Logging*, with strong participation from leading industries in the oil sector. In April 2019 NuSec ran a 2 day Nuclear Security Detection Workshop at the University of Surrey as a showcase of the network's research activities over the last 3 years.

Objectives and Remit

Phase 2 NuSec funding includes support for 50% funding of 6 PhD studentships, each for a duration of 42 months. During summer 2019 an open call will be made for applications from Universities to apply for a NuSec studentship.

Research proposals must support the aims of the NuSec network, to deliver research activities which have clear objectives in Nuclear Security Science. Applications are welcomed in areas that include the following topics:

1. **Detection systems for nuclear security**
2. **Algorithms, data and autonomous decision making**
3. **Alternative technologies for industrial use of radiation sources**
4. **Other innovative technologies for nuclear security applications**

Proposals for multidisciplinary projects are welcome, however applications must be primarily focussed on research that is within the remit of STFC. Preference will be given to proposals that include an industrial collaborator making a direct contribution to project costs.

Application Process

The lead supervisor from the host University must submit an application to NuSec using the NuSec PhD proposal application form which can be obtained from the NuSec website.

A signed letter of commitment must also be submitted with the application form confirming the financial commitment to the remaining 50% of the project costs. The letter of commitment is required either from the Project Partner, or from the host University in the absence of a project partner.

Timetable

Friday 1st November – Deadline for receipt of proposals, including a letter of commitment for the project partner for direct funding of 50% of the value of the proposal. Receipt of your application will be confirmed via an e mail from the NuSec network with 72 hours. If you do not receive an e mail within 72 hours of your submission then please e mail e.fletcher@surrey.ac.uk

Monday 2nd December – Successful proposals will be announced. The host University for each project can start to advertise and recruit the student. An offer letter for NuSec funding will be issued to the host University by Surrey.
1st October 2020 – Start date for students
30th June 2022 – End of NuSec funding for the studentship (21 months)
31st March 2024 – Final completion date for the student (42 months)

Assessment Criteria

Assessment of the proposals will be made by the NuSec Management Group. Any group members with an interest in a particular proposal will be excluded from that assessment. The following assessment criteria will be used:

1. Secured external funding for 50% of the project costs, with preference given to industrial contributions.
2. The project scope lies within the aims of the Nuclear Security Network.
3. Academic rigor of the proposed research program.
4. Quality of the supervisory team and project management.
5. Training opportunities for the student.
6. Strategy to maximise the impact of the research outputs.

Funding Scope and Eligibility

The NuSec award will be made to the host University from Surrey University. The NuSec award will cover 21 months of funding, up to a maximum value of £42,065, for the period 1st October 2020 to 30th June 2022. This will be the limit of NuSec's liability to the host University.

The proposal should request funding across the following categories:

UK PhD tuition fee[1]: £4,260 per annum

PhD Stipend: £14,777 per annum

Training and Support: up to £5,000 per annum

The maximum total cost of the proposal is £84,130 for a period of 42 months, supported 50% by NuSec.

The amount of the NuSec funding will not exceed the value of the committed funds from the host or external partner. Specifically, the tuition fee element of the NuSec funding will not exceed 50% of the value of a UK tuition fee.

Any standard terms and conditions that STFC requires for studentship funding will be passed by Surrey to the host University. Any special post-Brexit arrangements will follow the guidance and funding rules of STFC.

Reporting Requirements

The NuSec-funded PhD students will be required to present a review of their project at the NuSec Network Conference, which is provisionally planned for Summer 2022. Any outputs from the research should acknowledge funding from the STFC NuSec network.

Payments

An invoicing and payment schedule between Surrey and the host University will be provided at the time of award.

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[1] EU applicants from outside the UK are permitted although NuSec funding will comply with the normal STFC funding rules, and provided that the EU student fee status remains unaffected by Brexit.