

### What will the collaborating body have to do?

As a collaborating partner you will be expected to:-

- provide for the student to work in your establishment for a minimum of three months of a three year award;
- make an annual cash contribution to the institution towards the cost of the project, being a minimum of 60% of the minimum maintenance grant per annum for the duration of the CAST Studentship. The institution is entitled, at its discretion, to use a proportion of this contribution to increase the payment to the student;
- meet the extra expenses (e.g. travel and accommodation costs) incurred by the student as a result of visits to, or time spent with, the collaborating body; and
- provide any necessary special materials or facilities which the institutions do not possess.

You may wish to negotiate for the conversion of any standard Research Studentship to a CAST award.

### Further Information ...

For further details please contact:

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or

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or

**The Department for the Economy**  
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Tel: Belfast 028 9025 7699  
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CO-OPERATIVE AWARDS IN

# Science and Technology

Postgraduate Studentships 2020



## Co-operative Awards in Science and Technology

### What are CAST Awards?

Co-operative Awards in Science and Technology (CAST) specifically support research students and encourage the collaboration between academic institutions and private sector industry. The projects are jointly devised and supervised by an academic department and a collaborating body.

### What types of project are suitable?

Cast Awards can be made for a wide variety of project work in Science and Technology ranging from research to design and manufacturing problems. Research projects seeking support for three years will be expected to be either product or process orientated.

### What are the benefits.....

#### to the student?

You will have the opportunity to work on an exciting scientific problem that the collaborating body really wants solved.

You will gain the experience of studying and working in an industrial setting.

#### to the collaborating body?

CAST projects can be an economic way of solving some of your research problems and forging links with institutions of higher education.

Results obtained may be exploited for the benefit of those involved in the project.

#### to the academic institution?

Discussion with collaborating bodies to set up a project will strengthen your links with industry.



### Previous projects have included:-

A collaborative research project that addressed the challenges of forecasting electrical power demand for a power system with increased embedded renewables generation. Working with transmission and distribution power system operators, SONI/NIE, the student examined the impact of the growth in small-scale photovoltaic and wind generation capacity. The student developed new models for increasing the accuracy of power demand predictions to account for these renewable sources taking into account the impact of weather effects and the availability of short range weather forecasts.

A second example is a collaborative research project with Oxurion, a Belgium-based biopharmaceutical company, with an international reputation for developing novel drugs to prevent major causes of blindness. The student's project is based on the study of placental growth factor (PIGF) and its role in initiation and progression of age-related macular degeneration (AMD). Working closely with scientists in Oxurion and, under the supervision of Prof Alan Stitt, the student's ongoing research has already provided novel evidence aiding the development of a new therapeutic. Through regular engagement, including time spent in Leuven, the student has gained unique insight into how drug targets are chosen and translated into the clinic from a commercial setting. This is whilst still being able to present her research at international academic conferences and author scientific papers. Importantly, this DfE-CAST award has strengthened the relationship between Queen's University and Oxurion who share complementary interests in preventing AMD and diabetic retinopathy. A key goal of the ophthalmology programme at Queen's is to conduct cutting-edge research that will ultimately benefit patients. This growing academic-commercial partnership with Oxurion will make achievement of this goal more likely."

### How does the scheme operate?

#### - For Higher Education Institutions in Northern Ireland

Project Proposals from Collaborating Bodies  
Proposals must be submitted to the appropriate university for approval in accordance with their procedures. Decisions on

projects submitted will be conveyed by the universities to the applicant collaborating bodies during the year.

#### Student application

CAST awards, if available, will be advertised by the universities each year. Candidates should apply online for admission and funding to the university at which the particular project is offered. Applicants should submit their online application to the institution concerned by the published closing date. The application must include the title of the project applied for and should clearly indicate that it is for a CAST award.

Applicants will be selected in accordance with the University's published procedures.

#### - For Higher Education Institutions in Great Britain

#### Project proposals

Collaborative Awards in Science and Engineering (CASE) studentships are collaborative training grants that provide top quality Science & Engineering students with an excellent and challenging research training experience, leading to a PhD, within the context of a mutually beneficial research collaboration between academic and partner organisations. CASE studentships are funded by research councils and may be available in both GB and NI.

Students who wish to apply for such awards should approach the higher education institution of their choice and that institution will advise on the appropriate application procedures.

#### Eligibility and grant

Student eligibility requirements and basic rates of grant and allowances are the same as for standard DfE Research Studentship Awards - Department for the Economy Postgraduate Studentships terms and conditions are already available at <https://www.economy-ni.gov.uk/publications/student-finance-postgraduate-studentships-terms-and-conditions>, and from Queen's University, Belfast and Ulster University. Department for the Economy Postgraduate Studentships terms and conditions 2020/21 should be available in the early part of 2020.