NGCM CDT industry summer project proposal form

Overview

The industry summer project is carried out by students of the EPSRC Centre for Doctoral Training (CDT) in Next Generation Computational Modelling (see <http://ngcm.soton.ac.uk> for details regarding the Centre for Doctoral Training) during the summer in the first year of their studies. It commences after the exams in semester 2 and is the first opportunity for students to work full-time on a research question over a 3 month period (roughly from June to September, students should take leave during this period, leaving 3 month of time dedicated to the project). While some of the CDT students have PhD projects that are conducted together with an industry partner and will carry out their summer project with that partner, all other CDT students will have the opportunity to carry out a summer project with industrial focus to broaden their understanding of constraints experienced in work environments outside academia.

We invite proposals for such projects from academics and private sector partners and other organisations outside the University of Southampton with this form. Please find specific guidance below, and the actual form attached at the end of the guidance notes.

Once completed, please send your form to [ngcm@soton.ac.uk](mailto:ngcm@soton.ac.uk) and students will be allocated to the proposed projects, following student preferences for projects wherever possible.

Please **return completed project proposals by 9 January 2017** to ngcm@soton.ac.uk.

Practicalities and formalities

All research projects are carried out at the University of Southampton and are supervised by a supervisory team consisting of at least one Southampton academic and the industry partner who acts as an advisor. Where desirable and feasible, students can carry out some or all of the work at the industry partner’s site. This may require financial support from the industry partner to allow this placement, and an additional placement template form will need to be completed at some point.

Guidance for academics proposing projects

Academics are invited to propose summer projects for NGCM CDT students, irrespective of whether they anticipate supervising a NGCM CDT student in the coming years.

Please provide an industry partner when completing the form, and get their input and agreement to the project you propose.

Guidance for industry and non-university partners proposing projects

All projects need to be supervised by a Southampton academic. If you have an academic in mind who is qualified and willing to do this, please name them in the attached form.

If you have not identified such an academic partner, please outline your project and the NGCM team will try to locate a suitable academic. In this case, please return the form as soon as possible, so we can maximise chances of identifying a suitable supervisor.

Anticipated frequently asked questions

*1. How are students allocated to projects*? Students will be given a list of all available projects and ask to list three projects in order of priority. CDT directors will do the final allocation of projects to students, taking into account the students’ preferences. We expect that normally all students can do the project they wish to carry out most.

*2. If I supervise a student in years 2 to 4 of their studies, will I be supervising the summer project in year 1?*

Where the project is co-sponsored by an industry partner, the expectation is that a suitable 3-month project will be scoped with that industry partner, and that the student will carry out this project: this makes ideal use of the time, providing the student insight into constraints from a non-academic environment while at the same time engaging with the broader research domain of their PhD topic.

For PhD projects without an industry sponsor, the supervising academic is encouraged to propose a suitable summer project with an external partner to allow the student to consider this. The students will be encouraged to review and consider *all* projects offered. They may use this opportunity to investigate a 3-month chunk of work not closely related to their PhD topic.

Where no partner in a non-academic environment can be found, students may choose another project and in this case may not be supervised by their PhD supervisors during the summer project.

*3. How is the project assessed?* The summer project module is “FEEG6015 iPhD project” and the module specification is available [online](http://www.southampton.ac.uk/engineering/undergraduate/modules/feeg6015_iphd_project.page#overview). The project is assessed through a written dissertation that is marked by the supervisor and an independent examiner.

*Any other questions*? Get in touch with the centre’s manager, Dr Susanne Ufermann (ngcm@soton.ac.uk).

Updated 8 November 2016

|  |  |
| --- | --- |
| Project Title | Application of OpenFOAM for Marine Propeller Performance Analysis |
| Industry advisor (name of contact, email, company name and location) | William Batten, [wmbatten@QinetiQ.com](mailto:wmbatten@QinetiQ.com), QinetiQ, Gosport. |
| University supervisor  (name, email, faculty) | Prof. Stephen Turnock, [S.R.Turnock@soton.ac.uk](mailto:S.R.Turnock@soton.ac.uk), FSI, FEE |
| Student will be :- using OpenFOAM to perform analysis on the fluid flow of a marine propeller. The OpenFOAM code will be validated using experimental results provided by QinetiQ.  The student will also obtain knowledge of the structural effects of the fluid flow on the propeller using an appropriate, available open source structural package.  The aim of the project is to use open source software to obtain propeller performance results and to validate the results using experimental data. | |
| Summary of industry focus (~50 words): how does this project benefit the non-academic partner / what differs from an ‘academic’ 3-month project? | |
| Technical prerequisites, tools, software | OpenFOAM |
| Diagram/photograph/figure to summarise the project/challenge/ application/context |  |
| Caption for image |  |

*Return to* [*ngcm@soton.ac.uk*](mailto:ngcm@soton.ac.uk)*, please.*