

# MSc Student Projects with Industrial Partners

Every MSc student is required to complete a project (or Case Study) as part of their studies. Practical projects are normally real-life problems (or ideas) working towards a tangible “product”. These projects are designed to challenge students to think in terms of industrial development procedures and should take an idea from concept to, ideally, prototype product stage. Each MSc student undertakes a different project, chosen from a broad range of topics. All projects are supervised by members of academic staff.

Whilst students can select from the internal directory of projects, we also encourage them to specify their own project. In addition we welcome ideas for projects from industry. If you have a project, or would like to discuss a project proposal, please contact the MSc project allocation co-ordinator Dr Richard Neville. Please send initial enquiries to [mscprojects@cs.man.ac.uk](mailto:mscprojects@cs.man.ac.uk) – we’ll be happy to discuss how the School of Computer Science can help.

## General Information

Projects are selected in November each year and run from the following February to August. Typically, MSc students undertake background research from February to May and then work on the project full-time May to August.

Companies can submit potential projects any time of the year, but all project work takes place in the timescales described above. If a project is selected initial contact by the student, and academic supervisor, would normally take place early in February.

Our main criteria for accepting an Industry Project are:

- an established company
- a real problem to solve
- relevance to the Computer Science curriculum
- willingness by the company to provide support to the student throughout the project timescale, in partnership with an academic supervisor.

At the end of the project you should have a completed project – and a unique opportunity to access the cream of the next generation of computer scientists. A wide variety of IT and CS areas are of interest to the School.

# Why do we run these projects?

Through these projects we hope students can display that they have *learnt*, and can *integrate* and *apply*, many skills:

- Team and project management skills, including project management documentation;
- Software development;
- Algorithmic development;
- Software testing;
- Communication skills, written and oral;
- Technology and computation skills; and
- Business and systems analysis skills (including system documentation).

## **Notes:**

### ***Intellectual Property (IP)***

An accepted Industry Project would remain your [the company's] intellectual property, but this would be discussed in detail at the start of the interaction between the University and the company.

## **Deadlines:**

The timeline for Project proposal and implementation is as follows:

Submission of project ideas	Summer	By end of August
Final specification of project agreed	Semester 1	By end of October
Selection of projects by students	Semester 1	December
Notification of project allocation to students	Semester 2	January
Initial contact between student, supervisor and company	Semester 2	February
Background research	Semester 2	February to May
Full time project work	Summer	May to August
Final submission date	Summer	Early September

Reference URLs: <http://www.manchester.ac.uk/aboutus/dates/semester/> or <http://www.manchester.ac.uk/undergraduate/academiclife/semester/> for specific semester dates.

## ***"Client" Requirements***

We ask that the companies provide the following:

*Contact:* a person who can interact with the student as required: to explain the project; help the student in developing the requirements; help developing a project plan, and respond to student queries as the project progresses.

*Resources:* Normally the school provides computing software or hardware specific to the project. Students do have access to resources at the University and home, and are usually happy to work with these. Specialist industrial information may be required by the student from the company.

*Remuneration:* Our School and the students appreciate your [the companies] time and hope that both parties benefit from your [the company's] participation, hence students do not normally receive payment from the company. However if a company wants a student to spend some time at their site then it would be appropriate for the company to cover the associated expenses of travel and accommodation (if required).

### ***Student selection***

The company has the opportunity (if it wishes) to interview the students who have expressed interest in their project, possibly along with the supervisor. It would be useful for the company to provide a contact point with the initial project details so that any student interested in pursuing the option could ask questions before any formal decision to select the project is made. A more formal interview involving the company, student and the academic supervisor could be held (if required) once the formal project selection has taken place, but before the formal academic project allocation procedure. The simplest arrangement would be for such an interview to happen in Manchester by arrangement with the supervisor. We have no formal marks for the students at that time of the year, so some independent assessment may be helpful to ensure that students doing such projects were felt to be suitable by the company.

### ***Project selection***

In order to offer a broad choice of projects to students, we aim to develop more projects than we need each semester. Hence your [the company's] project may not be selected by a student. If this is the case, we would contact you. You can choose to remove the project from the database, or carry it over to the next year. If you choose to carry your [the company's] project over, you are welcome to make changes to your proposal, by contacting your appropriate [allocated] project supervisor.

## ***Project Proposal***

To submit a project proposal, please include project requirement information:

- *Title*: The working title of the proposed project;
- *Prerequisites [Skills required]*: A short paragraph describing prerequisite knowledge, programming skills etc. required to undertake the project;
- *Project description*: A description of the project, including an outline of the envisaged final product;
- *Project Aims*: Aims are what you want to achieve with the project. Aims are expected to be broad general statements;
- *Project Actions (Learning Objectives for the student)*: What needs to be done to achieve the aims. Objectives are usually more specific [*quantitative*] statements [how to achieve and measure the success of the project]; and
- *Existing work and references*: Details of any existing work undertaken and associated references.

## ***University Contact***

MSc allocation co-ordinator for projects in 20010/11 is Dr Richard Neville.

*Initial contact to enquire about a project*: e-mail [mscprojects@cs.man.ac.uk](mailto:mscprojects@cs.man.ac.uk)