

# CaMPUS Placements: UK Industrial - Reports 2012

Below are reports on the Summer Placements provided by students who participated in the scheme in 2012.

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## **Granta Design, Cambridge**

### **Report 1**

#### **1. General**

Placement Location: **Granta Design**

Arrival and Departure Dates: **2nd July - 14th September**

No. of working days spent at Institution: **50.5 days (11 weeks + 4.5 days holiday)**

#### **2. Financial**

Where did you stay during your placement (town name)?: **Cambridge**

Total cost of daily travel to and from Institution (£): **0**

Total received from Institution (£): **£2680**

#### **3. Research Project**

Title of Research Project: **Folder Level Records Project**

Written Report submitted to host institution?: **yes**

Experimental Techniques used: **no**

Interest level of project: on a scale of 1 (low) to 10(high): **7**

Quality of support provided: on a scale of 1 (low) to 10 (high): **9**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **5**

Short summary (~ 200 words) of technical content of project:

**Granta Design produce materials information databases for engineers and designers. The records contain a lot of records about specific alloys. My project was to produce 'folder level' records for the metals section of the database describing more general classes of materials, for example, one record was about 'carbon steels'. These records provided more descriptive information rather than specific numeric data as well as some processing guidelines. I collected the information from books, metal reference databases, some current Granta databases and online resources; I recorded the information in a spreadsheet and recorded where the information was from using a numbering system. I worked with the data products team within the company to create a layout for the metals database. A similar project was completed last Summer for polymers so some adjustments were made to the layout so that it could accommodate attributes for both metals and polymers. There were some problems when the data sources conflicted each other. This was overcome by a team of reviewers who are in the process of checking the information to ensure its accuracy – when this is complete the records will be ready to be incorporated into software releases.**

### **Report 2**

#### **1. General**

Placement Location: **Granta Design**

Arrival and Departure Dates : **2nd July to 28th September**

No. of working days spent at Institution: **59**

#### **2. Financial**

Where did you stay during your placement (town name)? **Parents' House in Cambridge**

Total cost of daily travel to and from Institution (£): **free - cycling**

Total received from Institution (£): **£3400**

### **3. Research Project**

Title of Research Project: **Brittleness**

Written Report submitted to host institution?: **yes**

Experimental Techniques used: **Literature review**

Interest level of project: on a scale of 1 (low) to 10(high): **7**

Quality of support provided: on a scale of 1 (low) to 10 (high): **8**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **5**

Short summary (~ 200 words) of technical content of project:

**The Project was a review of toughness and brittleness measures to ensure that the CES software was using appropriate properties to select for tough materials, and to expand the range of techniques for estimating fracture toughness as well as recording reported data. A new index was developed to characterize failure and new correlations developed to find fracture toughness.**

#### ***Report 3***

None submitted.

#### ***Report 4***

None submitted.

### **Johnson-Matthey, Royston**

#### ***Report 1***

None submitted.