

## Assignment Brief

### Microprocessors and Embedded Control Systems

You are expected to submit three separate assignments at designated intervals. Heed to the **deadlines** for each assignment submission in Lecture 1 notes at <http://brunel.ac.uk/~emstaam> on the module's webpage.

1. Assignment (artefact) embedded systems micro-controllers, I/O handling, sensing and actuation including demonstrator and 1500 word report. (30%)

**Submission Deadline: 14/02/14**

2. Assignment (sensors, actuators and systems monitoring) using National Instruments suite of technology, demonstrator and 1500 word report. (30%)

**Submission Deadline: 14/03/14**

3. Assignment (Industrial Automation, Programmable Logic Controllers, Industrial network) using Rockwell Automation Suite demonstrator and 2000 word report on the final project. (40%)

**Submission Deadline: 21/04/14**

#### Format of the Report

Each assignment report should consist of an introduction, background research (including alternative techniques and technologies), description of the task (tasks) undertaken, implementation process, correlation to between the practical aspects with theoretical underpinning (scientific justification), interpretation of results, industrial examples and potential expansions to the system (e.g. *what if scenarios*), and conclusions.

The final report would have a section with explaining the interrelationship of each of the three sections.

Your report should be an engineer's report using verbal (essay) and visual (block diagrams) representations of the work carried out.

Teaching Team:

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