**PROBLEM IDENTIFICATION**

Students need to identify suitable and challenging problems for their projects. There are two types of project:

design and implementation projects and investigative projects. They may be hardware or software.

Investigative projects are usually associated with the research work of members of staff. In the latter case because investigative projects cannot always lead to a positive outcome (new knowledge, product) the

assessment will emphasize your effort, competence, and achievements. Investigative projects can be very interesting and will certainly develop a range of abilities and bring your knowledge of the topic to the state of the art.

Industry oriented projects carried out with industrial support and collaboration are also encouraged. These may be undertaken in industry or in the University. The project should simulate a realistic exercise, which will enable the student to apply the knowledge acquired during the course of study. Industrially based projects promote an awareness of the practical issues facing engineers in industry and provide excellent experience for those wishing to have an early industrial appointment in their career. When carrying out industrially related projects the following must noted:

̶ To be approved the project must meet the required BEng standards and regulations. If it is to be undertaken in the University it will be necessary to ensure that the required facilities are available.

̶ The work carried out during an industrial placement  ***CANNOT*** be put forward as a final year degree project. A final year degree project is an integral part of the final year programme of study and must be undertaken only during this study period.

̶ When a project is carried out in collaboration with other staff in industry, the student must specify exactly what will be his/her contribution to the overall and final ‘product’.

**PROJECT SPECIFICATION**

Having identified a suitable problem, it is necessary to consider other constraints such as time, cost and technical limitations to devise a practical work plan. The work plan must be illustrated by a Gantt chart for the entire project period. The Gantt chart must be continually reviewed and modified during the progress of the project.

Appropriate methodologies/techniques should be identified in consultation with the project supervisor. Any potential hazards that the student may encounter should be discussed at this stage. Project specification, Risk Assessment and Ethics forms must be completed before work is commenced and before the Project Pre- board (see deadlines in page 2). **Failure to hand in a completed Risk Assessment and Ethics forms and project proposal by the deadlines will result in failure at that point.** The student and supervisor should both complete an assessment criteria feedback sheet for the specification available from the project Blackboard site which will be used to determine a mark for this component of assessment. Both the specification and risk assessment must be satisfactory for an overall pass. **Note** the marks awarded by the supervisor will form the final mark for this element.

**LITERATURE SURVEY**

A literature survey is essential to inform what has already been done and by which experimental and theoretical techniques, to enable the student to understand the problem in detail, to provide insight into how similar problems have been addressed in the past, and to provide a background to which the project is related in relevance, importance, and novelty. The Learning Centre provides a variety of resources such as CD-ROMs, databases, journals and access to the Internet. The literature survey is an integral part of both the progress and final report, it is expected that you will re-use much of the survey from your progress report, with some addition, as part of your final report.

**BODY OF WORK**

This may be experimental, analytical, design based or using numerical simulation ideally it will cover two or more of these aspects and form the majority of your work. You'll keep track of what you do in a log/lab book, this and your results will form a significant part of your thesis. The body of work is inevitably shaped by the project you choose, how you present it will be heavily influenced by the work you do. It is therefore critical that you discuss this with your supervisor to ensure the best possible result.

**ORAL/POSTER VIVA**

After completing and submitting your project you will make a short presentation to a group of other students and academics and defend your work in a poster presentation; these two aspects happen in the same session but are assessed differently. The oral presentation allows you to demonstrate your broader communication skills whilst the poster allows you to answer questions about your work thereby demonstrating your knowledge and understanding.