MODULE TITLE: **4E2 Computer Engineering Project**

CODE: **CS4E2**

LEVEL: **Senior Sophister (Mandatory module)**

CREDITS: **15**

CO-ORDINATOR: **Dr Hugh Gibbons (hugh.gibbons@scss.tcd.ie)**
SUPERVISOR: **As agreed with Coordinator**

AIMS/OBJECTIVES

As part of the requirements of the final year, students in Computer Engineering carry out an individual engineering project. Each student is assigned a project topic and supervisor who will guide the course of the project throughout the academic year. There are no formal timetabled hours associated with the project but students are expected to spend the time it takes to make reasonable progress and to keep in regular contact with their supervisors. It is recommended that students make a formal arrangement with their supervisors to meet on a weekly basis, preferably at a regular appointed time.

Students may opt to have their projects supervised by lecturers in either the Department of Electronic and Electrical Engineering or Computer Science, provided the chosen topic is judged suitable by the relevant Departmental coordinators. In Computer Science, lecturers advertise projects and it is then up to the students to approach the relevant lecturer to make the necessary arrangements - students may also approach individual lecturers with their own project proposals.

SYLLABUS

Projects are allocated in areas of research expertise and interest of members of the academic staff in the Department. The project content is decided by the supervisor for each individual project. Project assignments are made to students on the basis of the choice forms filled out at the end of the Junior Sophister year. The nature and content of the project is then discussed by supervisor and student in the first week in semester 1.

LEARNING OUTCOMES

On successful completion of the project, the students will be able to:

- derive, apply and adapt solutions from the discipline specific knowledge gained in lectures and coursework, to a real world problem solving context;
- experience independent enquiry and investigation of a practical engineering problem, application or topic;
- assess and criticise information, methods and results for a defined engineering purpose;
- identify and formulate technical problems in such a manner as to make them amenable to solution;
- design a system, component or process to meet a specified goal;
- analyse and interpret results from experiments conducted during the course of the design process in order to modify improve or explain the functionality of the system, component or process being created;
- communicate effectively in technical and scientific writing, and to present scientific/technical concisely to a technical audience that may not be expert in the specific domain of the presentation;
- formulate the design of systems in terms of a schedule of intermediate goals that manifest in subsystems;
- manage workflow and task scheduling within the constraints of resources and time given specific design goals and deadlines;
- use industry standard hardware and/or software tools and codes of practice for all aspects of design including analysis and presentation;
- examine and discuss the impact of the project design or theme on people and the environment.

TEACHING STRATEGIES

There are no formal timetabled hours associated with the project but students are expected to spend the time it takes to make reasonable progress and to keep in regular contact with their supervisors. It is recommended that students make a formal arrangement with their supervisors to meet on a weekly basis, preferably at a regular appointed time.

ASSESSMENT MODE(S)

The project is assessed on the basis of the final year report. The project supervisor and the second reader attend a project demonstration held early in the third (Trinity) term. The demonstration is informal and is not marked.

PLAGIARISM

The college's policy on plagiarism is outlined in section H of the College Calendar. There is no substitute to reading the regulations but here are a few of the key points:

Plagiarism arises from;

- copying another student's work;
- enlisting another person or persons to complete an assignment on the student's behalf;
- quoting directly, without acknowledgement, from books, articles or other sources, either in printed, recorded or electronic format;
- paraphrasing, without acknowledgement, the writings of other authors.

It is the responsibility of the student to ensure that he/she does not commit plagiarism

Plagiarism is serious whether the plagiarism is deliberate or has arisen through carelessness. Remember, the project dissertation must be your own piece of work and written in your own words. Where material is being repeated verbatim from published, web or other sources, you should use inverted commas, italics and/or present the material in a separate paragraph, to make it clear to the reader that you are quoting directly (and you must reference the source).