Individual Programming Project – CS7050

The principal aim of this course is to provide students with experience of developing a significant concurrent, distributed application using socket programming. Upon completion of the course students will have gained experience of analysing, specifying, designing and implementing a complete distributed application. They will also have been exposed to the challenges posed by debugging, testing and demonstrating such an application.

The individual programming project is undertaken by each student during the first semester of each academic year. The project is accompanied by a series of seminars in which the main concerns arising in the design of robust distributed applications are examined.

When students have successfully completed this module they should be able to:

- analyse, specify, design, write and test a complete distributed application solving a complex problem;
- use threads and sockets in the implementation of a concurrent distributed application;
- select appropriate structuring mechanisms and data placement strategies for distributed applications;
- recognise the need for higher-level programming paradigms for the development of distributed applications;
- document and demonstrate a distributed application.