Subject Description Form

Subject Code	CSE49406
Subject Title	Individual Project for Structural and Fire Engineering
Credit Value	6
Level	4
Pre-requisite	All relevant CSE and BSE core subjects in Years 1 to 3
Objectives	The objective of this subject is to train students to design a research type of work to solve problems in major structural and fire engineering areas.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Apply the fundamentals of applied science, mathematics, and statistical methods to formulate effective solutions across a wide range of structural and fire engineering domains; b. Critically analyze and interpret data for an in-depth study of a particular process or subject area in the recognized major areas in structural and fire engineering; c. Cope with the challenges and developments of the profession, including the increasing application of information technology in real practices; d. Communicate logically and lucidly through drawing, calculation, and in writing; e. Present ideas and arguments verbally in formal presentations; f. Have critical and creative thinking and an ability to work independently; g. Recognize the need for and develop an ability to engage in life-long learning; h. Reflect on and review their progress, and seek assistance or guidance as appropriate in order to enhance the quality of their work.
Subject Synopsis/ Indicative Syllabus	Broadly, there are two main components, a critical assessment of appropriate literature and the completion of some experimental and/or theoretical work of an original nature. Literature reviews, in the absence of any significant laboratory, design, analysis, programming or fieldwork are not encouraged.
Teaching/Learning Methodology	**Project Allocation** The Department produces a list of project titles and synopses proposed by staff. Students are encouraged to discuss these proposals with the staff members concerned and to identify their preferences on the list. Students are also encouraged to propose topics of their own, perhaps related to their work during Industrial Training placements. Subject to acceptance of the academic credibility of such proposals, and the availability of a suitable staff supervisor, the Department would then sanction such projects. The project allocation exercise is completed prior to the commencement of the academic year.

Time Allocation

A formal allocation of 4 hrs/wk is provided in the timetable. However, in practice, one "free" day per week is provided for students to concentrate on their Individual Project activities.

Supervision

Each student is supervised by the staff member who is the proposer of the project. Such supervision requires the regular discussion of the student's work and guidance and advice throughout the year. Although such guidance is available to the student, it is stressed that the ultimate responsibility for the direction and content of the project lies with the student.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)							
		a	b	c	d	e	f	g	h
1.Project Reports and Poster	85	√	√	√	√		√	√	√
2. Oral Presentation	15	√	√	√		√		√	√
Total	100 %								

Students must attain at least grade D in both coursework and final examination (whenever applicable) in order to attain a passing grade in the overall result.

Student Study Effort Expected

Class contact:	Average hours per week (Semester 1 & 2)
▪ Laboratory and /or other related works	3 Hrs.
Other student study effort:	6 Hrs.
Total student study effort	9 Hrs.

Reading List and References

To be provided by the project supervisors.