Module Code	EE7E02
Module Name	MSc RESEARCH PROJECT
ECTS Weighting[2]	30 CREDITS
Semester taught	Semester 1 & 2
Module Coordinator/s	Dr. Justin King
Module Learning Outcomes with reference to the Graduate Attributes and how they are developed in discipline	On successful completion of this module, students should be able to: LO1. Frame a research question that can be answered in a limited time period and with limited resources; LO2. Identify, assess and synthesize existing literature and research findings in respect of an unfamiliar scientific problem; LO3. Develop and justify an appropriate research project design; LO4. Apply a range of standard and specialised research tools and techniques; LO5. Apply and develop relevant theoretical, scientific and mathematical principles; LO6. Apply and develop engineering analysis and design tools; LO7. Design and conduct experiments and analyse and interpret data; LO8. Demonstrate the research skills required to perform the research work undertaken; LO9. Discuss and critically evaluate the research findings; L10. Reflect on the strength and limitations of the research; L11. Assess the implications of the project outcomes for engineering practice; L12. Write a research dissertation to sufficient professional and academic standards; L13. Present complex ideas and material to an academic supervisor and respond effectively to questions and criticism; L14. Contribute individually to the development of scientific/technological knowledge in one or more areas of their engineering discipline.

[1] An Introduction to Module Design from AISHE provides a great deal of information on designing and re-designing modules.
[2] TEP Glossary

	Graduate Attributes: levels of attainment To act responsibly - Enhanced To think independently - Attained To develop continuously - Attained To communicate effectively - Attained
Module Content	MSc students are required to complete an individual research project on a topic of contemporary engineering research interest. This work must be presented in a project summary, an oral presentation and a research dissertation, which provide the main means of project assessment. Projects will involve a substantial element of laboratory or field experimental work and/or engineering analysis/computation. Projects are allocated in areas of research expertise and interest of members of the academic staff in the Department of Electronic and Electrical Engineering. The project content is decided by the supervisor for each individual project. The nature and content of the project are discussed by supervisor and student in the first week of the first semester. Research topics and project titles will be proposed by academic staff in the Department, based on their ongoing research activity. Students may propose their own research topics if they can demonstrate adequate prior knowledge and experience of the field, and if they can identify an appropriate academic supervisor. The project may be undertaken in conjunction with a research group, and/or in connection with industry or another university, where circumstances are appropriate. Whenever a project involves significant collaboration with an industrial or other external partner, an external co-supervisor may also be appointed.

Teaching and Learning Methods	There are no formal timetabled hours associated with the project but students are expected to dedicate the time necessary to make reasonable progress, and to keep in regular contact with their supervisor. It is recommended that students make a formal arrangement with their supervisors to meet on a weekly basis, preferably at a regular appointed time. EE7E1 is assessed on the basis of a project summary, an oral presentation and a dissertation, which will be marked by both the project supervisor and an assigned second reader. ***Project summary and progress presentation: 10 marks*** The project summary and progress presentation should be submitted by the **end of week 1 of the second term**. More detailed instructions will be presented to the students by the Coordinator during the first semester. ***Oral presentation: 15 marks*** An oral presentation must be delivered to the supervisor, second reader and external examiner during **week 13 of the second term**. The presentation shall last up to 15 minutes, including questions. The format for the presentation shall be Powerpoint or similar, and should focus on the main content of the project up to the presentation date, including a clear summary of the project's aim, background, main findings, and conclusions. ***Dissertation: 75 marks*** A full typed dissertation on the project must be submitted. This should not exceed 80 pages, excluding appendices/annexes if required. The font should be Calibri, or other *sans serif* font, 12-point, with 1.5-spacing of lines, and standard margins. The dissertation should contain an introduction outlining in detail the aims and objectives of, as well as some background information on, the project. The bulk of the dissertation should discuss in detail the main technical work carried out by the student, with appropriate results, explanations and deductions. The conclusion should comment on the overall outcome of the project. The bibliographic referencing style should follow the IEEE guidelines. The dissertation is marked by the supervisor and a second reader. All outputs generated will be subject to the usual anti-plagiarism checks. **The dissertation must be submitted in hard copy (two soft-bound copies) to the Departmental office.**

Assessment Details[3]
Please include the following:

- **Assessment Component**
- **Assessment description**
- **Learning Outcome(s) addressed**
- **% of total**
- **Assessment due date**

Assessment Component	Assessment Description	LO Addressed	% of total	Week due
DISSERTATION	See above	ALL	75	Aug
Summary	See above	1,2,3	5	Dec
PRESENTATIONS	See above	ALL	20	Apr

Reassessment Requirements	None available
Contact Hours and Indicative Student Workload[3]	**Contact hours: 36 (as arranged with supervisor)** **Independent Study (preparation for course and review of materials): 250** **Independent Study (preparation for assessment, incl. completion of assessment): 714**
Recommended Reading List	
Module Pre-requisite	
Module Co-requisite	
Module Website	See blackboard
Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.	No
Module Approval Date	July 2026
Approved by	Justin King
Academic Start Year	17th September 2026
Academic Year of Date	2026

[3] TEP Guidelines on Workload and Assessment