Analogue Electronics & Business Project (Problem Based Learning)

EE229

10 ECTS Credits

Module Name	Analogue Electronics and Business Project (Problem Based Learning)
Module Code	EE299
Module Co-ordinator	Refer to Excel document *Module_Co-ordinators*
Department	Electronic Engineering
Credit rating	10 ECTS credits
Pre-requisites	EE199 Systems and Control Project (PBL)

Aims	• To promote project based learning in the field of analogue electronics. • To instill the creative spirit in students. • To develop oral and written communication skills. • To develop students experience of working in a group. • To engender an awareness of ethical issues in engineering. • To develop a basic business proposal.
Learning Outcomes	At the end of this module a student should be able to: 1. Apply problem-based learning to solve unforeseen problems in the area of analogue electronics. 2. Apply structured design to a range of problems. 3. Apply theoretical knowledge in solving problems encountered. 4. Apply a structured process to business proposal research, including market research, user research and competitor analysis. 5. Prepare a set of manufacturing documentation (costed BOMs, Assembly and Test specifications). 6. Discuss any ethical issues, environmental impacts and health and safety issues associated with their project. 7. Write a product concept report (including technical and business feasibility issues) and prepare and deliver an oral presentation. 8. Defend their work through interview. 9. Demonstrate appropriate project management techniques (including time management and project planning).

Workshop Content

Workshop 1 – Problem-based learning – revision & reflection Workshop 2 – Project Planning Workshop 3 – New product development – market and user research Workshop 4 – The new product business proposal

Assessment Criteria	
Business Proposal – Report and Interview*	20%
Final Report + Interview* *Presentation/Structure/Communication (15%)* *Understanding of problem domain (25%)* *Technical content – quantity and depth (50%)* *Ethical considerations (10%)*	60%
Final Presentation	10%
Project Management Report *(including reflective journals and an account of project execution)**	10%
*One report is submitted per group. However, each member of the group will be graded individually. Their grade will be based on the group report and presentation, their individual contribution to the project and, significantly, their knowledge of the overall project, as determined by the interview.	
Penalties: Late submission of reports will be subject to a penalty of 10% of the assessment grade for each day (or part thereof) overdue. **Pass Standard and any Special Requirements for Passing Modules:** Pass 40% - students are not required to pass components separately – an overall pass mark of 40% is acceptable.	

Supplemental Examination :This module is 100% continually assessed. Hence, there is no repeat Autumn examination, as there is no facility available for repeating the continuous assessment elements of the module.

Assessment Philosophy
The different modes of assessment employed (reports, presentation and interviews) evaluate learning outcomes 7 and 8. Learning outcomes 1 – 6 are primarily evaluated in the main report and interview. The number and scheduling of the assessment procedures are designed to indirectly evaluate learning outcome 9. Direct assessment of learning outcome 9 also occurs in the project management report through the requirement for a project completion plan.

Programmes currently utilising module	**Compulsory**
BE in Electronic Engineering	No