EE4080: PROJECT

Effective Term
Semester A 2022/23

Part I Course Overview

Course Title
Project

Subject Code
EE - Electrical Engineering
Course Number
4080

Academic Unit
Electrical Engineering (EE)

College/School
College of Engineering (EG)

Course Duration
Two Semesters

Credit Units
0-6

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
For Normative 4-year Degree Students
At least 63 credit units of the Major Requirement, College Requirement and College-specified GE Courses have been completed

For Advanced Standing Students(Note 1 & 3)
At least 39 credit units (For Advanced Standing I students) / 36 credit units (For Advanced Standing II students) of the Major Requirement have been completed

Note 1: Credits of exempted courses are counted regardless of the completion time of replacement courses
Note 2: Corresponding reduction in credit requirement applies to ASII students granted with waiver arrangement on courses upon admission.
Note 3: Students completed full requirement in College-specified GE courses (MA1200/MA1201/MA1300/MA1301) can have one course counted towards the credit unit requirement specified above.

Precursors
Nil

Equivalent Courses

EE4181 Project (ECE) or
EE4281 Project (CDE) or
EE4381 Project (INFE)

Exclusive Courses

Nil

Part II Course Details

Abstract

This course is to provide students the options to undertake either academic project (Part A) or industrial project (Part B).

Part A: Academic Project
The aim of this academic project is to provide students with a project to integrate and apply what has been learnt in the programme. This allows students to be trained in organizing and managing a substantial individual project to initiate creativity, innovation and intellectual abilities.

Part B: Industrial Project
The aim of this part is to provide students, in collaboration with industry, an industrial project to integrate and apply what has been learnt in the taught undergraduate courses. This enables students to be trained in co-operation with the electronic related industry while nurturing students with a spirit of professionalism. The result will strengthen employability by meeting the needs of industry.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Part A Academic Project Complete a project in the area of electronic and communication, computer or information engineering in substantial depth		x	x	x
2	Part A Academic Projec Demonstrate critically, the innovative design ideas, analysis, implementation and solutions encountered in a project		x	x	x
3	Part A Academic Projec Communicate in written form, a substantial formal report reflecting outcomes effectively and accurately		x	x	x
4	Part A Academic Projec Communicate orally with the aid of presentation techniques to give optimum impact		x	x	x
5	Part B Industrial Project Complete an industrial project in design, applied research or development		x	x	x
6	Part B Industrial Project Demonstrate initiative, innovative and intellectual abilities in handling a challenging technical project		x	x	x
7	Part B Industrial Project Communicate in written form, a substantial formal report reflecting outcomes effectively and accurately		x	x	x

8	Part B Industrial Project Communicate orally with company mentors to identify industrial needs and solve technical problems		x	x	x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Part A Academic Project Laboratory and other activities	Project guidance by project supervisor and self-learning	1, 2, 3, 4	Laboratory: 104 hrs (8hrs x 13wks) Other activities: 72 hrs (5.5hrs x 13wks) Total: 176 hrs/semester
2	Part B Industrial Project Laboratory and other activities	Project guidance by project supervisor and self-learning	5, 6, 7, 8	Laboratory: 104 hrs (8hrs x 13wks) Other activities: 72 hrs (5.5hrs x 13wks) Total: 176

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Part A Project report, Demonstration, Oral Presentation Part B Project report, Demonstration, Oral Presentation	1, 2, 3, 4, 5, 6, 7, 8	100	CILO No. 1-4 for Part A; CILO No. 5-8 for Part B;

Continuous Assessment (%)

100

Examination (%)

0

Additional Information for ATs

Remark:
For a student to pass the course,

(i) They must conduct an oral presentation,
(ii) They must obtain an overall pass (D) grade or above,
(iii) They did not obtain a final fail (F) grade from the supervisor and assessor.

Assessment Rubrics (AR)

Assessment Task
Coursework

Criterion
Achievements in CILOs

Excellent (A+, A, A-)
High

Good (B+, B, B-)
Significant

Fair (C+, C, C-)
Moderate

Marginal (D)
Basic

Failure (F)
Not even reaching marginal levels

Additional Information for AR
Information on evidence for each level of achievements is available in the attached additional document.

Part III Other Information

Keyword Syllabus

Project Implementation
Formulation of design problem; utilization of engineering/problem solving skills; analysis, assumptions, extension of knowledge; concepts, innovation; project management; usage, resource management.

Project Demonstration
Live demonstration; guided tour; supporting material; explanation of problems encountered.

Project Report
Organization; content, engineering/theoretical analysis, relevance; use of appendices, engineering/theoretical work, report writing style and grammar; presentation of material; visual.

Project Oral Presentation
Content; relevance, accuracy, delivery; organization, preparation and effectiveness of delivery, style, pacing and body language, time management.

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	The project supervisor should recommend relevant books, publications and reference materials prior to the commencement of the project. The student, however, is expected to perform some of the literature search himself/ herself.