City University of Hong Kong
Course Syllabus

offered by Department of Electrical Engineering
with effect from Semester <u>A in 2024/2025</u>

Part I Course Overview

Course Title:	Applied Research Internship Scheme in Electronic Engineering
Course Code:	EE6691
Course Duration:	For full-time mode student only: 2 semesters/terms with possibility to extend for 1 more semester/term, (As set out in City University's Academic Regulations, Dissertation-type courses are not allowed to be repeated.)
Credit Units:	15
Level:	P6
Medium of Instruction:	English*
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	30 Credit Units of MSc elective courses; or equivalent
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	EE6680 Dissertation EE6680D DissertationEE6690 Internship Scheme in electronic Industry

* Note 1:
Medium of daily interaction with research staff in the placement establishment is depending on the country of placement, however, English is the medium for assessments for both written and oral forms.

Part II Course Details

1. **Abstract**

    The aim of the internship is to provide students with an opportunity to integrate and apply what has been learnt in the taught postgraduate, with experience through an applied research project in a research environment.

2. **Course Intended Learning Outcomes (CILOs)**
    (CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Organize and manage a substantial individual industrial project in Design, Applied Research, or Development, demonstrating effective project management skills.		✓	✓	
2.	Work independently with professionalism, successfully completing project assignments while adhering to industry standards and practices.		✓	✓	
3.	Exhibit initiative, innovation, and intellectual abilities in addressing and solving technically challenging projects/assignments, showcasing creative problem-solving skills.		✓	✓	✓
4.	Effectively disseminate research findings through written technical research reports, peer-reviewed publications, and oral presentations, demonstrating clear communication and dissemination skills.		✓	✓	✓
		100%			

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.

3. **Learning and Teaching Activities (LTAs)**
   (TLAs designed to facilitate students' achievement of the CILOs.)

LTA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4			
Daily interaction and communication with staff in the designated establishment	Students engage in ongoing meetings and project discussions with company mentors throughout the project cycle, promoting continuous feedback, professional collaboration, and active learning.	✓	✓	✓				
Keep a training log and perform daily research activities	Students maintain a reflective training log to document daily research activities, including project documentation, technical paper reading, laboratory experiments, implementation, and result evaluation, fostering self-reflection and critical analysis of the research process.	✓	✓	✓	✓			
Supervisory visits/discussions	CityU supervisors conduct regular visits and discussions with students to review research progress, provide guidance, and ensure alignment with learning goals, facilitating continuous support and mentorship.	✓	✓	✓				
Write a report and give a presentation	Students summarize their research outcomes through a comprehensive written report and an oral presentation, effectively communicating their findings and fostering discussions with supervisors and peers, enhancing dissemination and public speaking skills.	✓	✓	✓	✓			

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.						Weighting	Remarks
	1	2	3	4				
Continuous Assessment: 100%								
Log book, technical research report, published peer review paper (if any), project demonstration, final oral presentation	✓	✓	✓	✓			100%	
Examination: 0% (duration: , if applicable)								
							100%	

Continuous Assessment: Coursework (100%)

The course work assessment is divided into two major components:
Internship Component (40%)
The assessment for the internship placement component is composed of log book, discussions/visits to obtain feedback from training establishment, presentation and demonstration in the training establishment.

Research Component (60%)
The assessment of research component is composed of technical research reports, published peer reviewed papers (if any), project demonstration, and final oral presentation.

The assessment of the project will be based upon the following components:
(i)   quality and content of research reports/papers
(ii)   performance in oral presentation

The assessment process will take the form of a technical report and an oral presentation together with a project demonstration, and will be carried out by an assessment panel appointed by Head of Department and comprised of a chairman, an assessor and the project supervisor.   The Chairman will moderate the assessment process while the assessment panel will generate a single assessment mark for each project. In the event of a disagreement between supervisor and assessor on the assessment mark, the chairman shall arbitrate.

Note 2:
The internship placement can be either in local and overseas establishments, preferably in industrial companies or research-based laboratories attached to universities. Screening of the internship places similar to other internship schemes in the EE department will be performed in order to select qualified hosts. Each internship must have a well-defined project and schedule for the student. There are well established monitoring procedures to ensure the quality of internship. Company visits/interviews and log book checking are some of those procedures.

5. **Assessment Rubrics**
    (Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Applicable to students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Coursework	Achievements in CILOs	High	Significant	Moderate	Basic	Not even reaching marginal level

Applicable to students admitted from Semester A 2022/23 to Summer Term 2024

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B,)	Marginal (B-, C+, C)	Failure (F)
1. Coursework	Achievements in CILOS	High	Medium	Low	Not even reaching marginal level

6.   **Constructive Alignment with Programme Outcomes**

PILO	How the course contribute to the specific PILO(s)
1, 2, 3, 4, 5	The course provides students with ample opportunities in acquiring knowledge and know how in advanced technologies in the chosen areas of applied research internship.
6, 7	Students are required to complete a technical report, and demonstrate and present their research contribution in the selected topics. Students will also acquire project management skills and develop a sense of financial viability for the applied research project.
8	Students are required to complete an industrial research project which enables them to develop the ability to do academic/industrial research

Part III Other Information (more details can be provided separately in the teaching plan)

1.   **Keyword Syllabus**
      Nil

2.   **Reading List**
2.1   **Compulsory Readings**
      (Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Designated research/topical papers in the field of the project

2.2   **Additional Readings**
      (Additional references for students to learn to expand their knowledge about the subject.)

1.	Designated research/topical papers in the field of the project