	Course name: EE401 Research Project		**Department:** Electrical and Electronics Engineering	Semester 7
	Methods of Education			Credit (ECTS)
	Lecture	Study Time	Project	Total	6
	84	56	40	180	

Language	English
Compulsory/Elective	Compulsory
Prerequisites	None
Course Contents	Selecting a suitable design topic, defining objectives, requirements and constraints, search for the available solution approaches to similar problems, preparing a conceptual design, SWOT and cost analysis
Course Objective	Selecting an appropriate design area compatible with the students' personal/professional abilities. Divide a complicated design problem into manageable sub-tasks. Survey on the previous related studies and compare their strong and weak sides. Propose a suitable conceptual engineering design solution. Make SWOT and cost analysis. Present his/her studies and design both in written and oral form in a formal way.
Learning Outcomes and Competences	**Students who pass the course will be able to:** – Come up with a complete conceptual design solution to an engineering problem – Search related design solutions from different sources – Use engineering tools and techniques – Prepare a complete project report and present his/her work to an audience
Textbook and /or References	Literature, academic conference and journal publications

Assessment Criteria		If any, mark as (X)	Percentage (%)
	Midterm Exams		
	Quizzes		
	Homework		
	Projects	X	100
	Laboratory work		
	Other		
	Final Exam		

Instructors	All department instructors

Weekly Schedule

Week	Subject
1	Discussion on the project objectives, requirements and constraints
2	Planning the road map (Gantt-chart) and student responsibilities
3	Literature survey on the project topic and reviewing the theoretical background
4	Division of the problem into sub-tasks
5	Proposal of a solution supported with references
6	Working on the conceptual design of the project
7	Cost analysis of the proposed solution
8	SWOT analysis and possible alternative solutions
9	**Mid-term Exam**
10	Submission of the Project Report Draft
11	Preliminary experiments to validate some critical sub-tasks
12	Preliminary experiments to validate some critical sub-tasks
13	Preparation of Final Project Report
14	Preparation of Final Project Report and Presentation
15	Project Oral Presentations