



# HABIB UNIVERSITY

## EE/CE-213L Electric Circuits - II Lab

### Complex Engineering Activity

### Assessment Rubrics

Project Title:		Date:	
Team/Student:		Reviewer:	

### Project Proposal Assessment Rubric

Assessment Elements	Level I	Level II	Level III	Level IV	Points
<b>Layout &amp; Organization</b>	Project report is not prepared according to the specified format. References and citations are not appropriate	Project report is according to the specified format but has some mistakes. In-sufficient references and citations.	Project report is according to the specified format. References and citations are appropriate but not mentioned well	Project report is according to the specified format. References and citations are appropriate and well mentioned.	/2.5
<b>Content</b>	Explanation of the different parts is unclear or absent and poor description of technical requirements.	Explanation of the different parts is incomplete and insufficient description of technical requirements	Explanation of the different parts is complete but insufficient description of technical requirements	Explanation of the different parts is complete and good description of technical requirements	/5
<b>Conclusion &amp; Expected Outcomes</b>	Results are not presented properly and project work is not summarized and concluded	Results presented are satisfactory but project work summary and conclusion is not very appropriate	Results are presented in good manner but project work summary and conclusion is not very appropriate	Results are presented in very appropriate manner and project work is well summarized and concluded	/2.5
<b>CLO4</b>				Total Marks	/10

## Milestone-I Software Assessment Rubric

Assessment Elements	Level I	Level II	Level III	Level IV	Points	
<b>Simulation</b>	Program/code/simulation model/network model is not well-documented (i.e. with no comments and proper variable names) and not efficiently implemented**	Program/code/simulation model/network model (i.e. with some comments but has improper variable names or vice versa) and is implemented by computationally complex routine**	Program/code/simulation model/network model is well documented (i.e. with comments and proper variable names) but not implemented efficiently**	Program/code/simulation model/network model is well-documented (with comments and proper variable names) and efficiently implemented**	/10	
<b>Calculations</b>	Components are wired and didn't show neat and clean connections*	Components are wired with untidy connection and didn't show neat and clean connections*	Few but not all Components are wired with neat and clean connections*	Complete components are wired with neat and clean tight connections*	/10	
<b>Design</b>	Proposed design is unsubstantiated or does not satisfy most of given constraints. The breakdown of system into features is incomplete and still at lower resolution.	Justification for proposed design is weak, and it only satisfies some constraints. The breakdown of system is missing some features and resolution is not appropriate at some places.	Proposed design is substantiated, preferably through proper analysis, and satisfies most given constraints. The breakdown of system into features seems complete, but resolution is not appropriate at some places.	Proposed design is substantiated, preferably through proper analysis, and satisfies all given constraints. The breakdown of system into features seems complete and at appropriate resolution, given students' level.	/10	
<b>CLO 2</b>				Total Marks	/30	/30

## Milestone-II Hardware/Software Assessment Rubric

Assessment Elements	Level I	Level II	Level III	Level IV	Points	
<b>Organization &amp; Presentation</b>  <b>CLO2</b>	Components are wired and didn't show neat and clean connections*	Components are wired with untidy connection and didn't show neat and clean connections*	Few but not all Components are wired with neat and clean connections*	Complete components are wired with neat and clean tight connections*	/15	
<b>Design functionality</b> <b>CLO2</b>	The prototype was neither developed nor tested	The prototype was developed but not tested	The prototype was properly developed and tested with minor bugs	The prototype was properly developed and fully tested and function correctly	/20	
<b>Viva &amp; Contribution</b>  <b>CLO 4</b>	Response shows a complete lack of understanding for the project. No participation towards the group tasks	Response shows some understanding for the project. Slight participation towards the group tasks	Response shows substantial understanding for the project, ideas and process. Substantial participation towards the group tasks	Response shows complete understanding for the project, ideas and process. Outstanding participation towards the group tasks	/10	/10
				<b>Total Marks</b>	/45	/45

\*: Hardware      \*\*: Software

## Project Report Assessment Rubric

Assessment Elements	Level I	Level II	Level III	Level IV	Points
<b>Layout &amp; Organization</b>	Project report is not prepared according to the specified format. References and citations are not appropriate	Project report is according to the specified format but has some mistakes. In-sufficient references and citations.	Project report is according to the specified format. References and citations are appropriate but not mentioned well	Project report is according to the specified format. References and citations are appropriate and well mentioned.	/2
<b>Content</b>	Explanation of the different parts is unclear or absent and poor description of technical requirements.	Explanation of the different parts is incomplete and insufficient description of technical requirements	Explanation of the different parts is complete but insufficient description of technical requirements	Explanation of the different parts is complete and good description of technical requirements	/9
<b>Writing Quality</b>	Contains many grammatical and/or spelling mistakes	Contains minor grammatical and/or spelling mistakes	Without grammatical and/or spelling mistakes	Well written throughout without grammatical or spelling mistakes	/1
<b>Conclusion &amp; Results</b>	Results are not presented properly and project work is not summarized and concluded	Results presented are satisfactory but project work summary and conclusion is not very appropriate	Results are presented in good manner but project work summary and conclusion is not very appropriate	Results are presented in very appropriate manner and project work is well summarized and concluded	/4
<b>CLO 4</b>				<b>Total Marks</b>	/15

Milestone	CLO	EA s	CLO 2	CLO 4
Milestone 1	Proposal		-	/10
Milestone 2	Simulation		/10	-
	Calculation	EA 2	/10	-
	Design	EA 5	/10	-
Milestone 3	Organization & Presentation		/15	-
	Design Functionality	EA 2	/20	-
	Viva			/10
	Final Report	EA 2	-	/15
	Total		/65	/35

*For description of different levels of the mapped rubrics, please refer the provided Lab Evaluation Assessment Rubrics and Affective Domain Assessment Rubrics*

### Complex Engineering Activity

This project is a CEA and includes the following Washington Accord (WA) attributes:

Code	Activity Characteristic
EA1	Range of Resources – Use of diverse, possibly specialized, resources.
EA5	Familiarity – activities involve unpredictability and require judgment and responsibility.

### Rubric for assessment of Complex Engineering Activity

<b>EA code</b>	<b>EA Description</b>	<b>Unsatisfactory, 0</b>	<b>Satisfactory, 1</b>	<b>Good, 2</b>	<b>Very Good, 3</b>	<b>Comprehensive, 4</b>
EA1	Range of Diverse Resources (people, data, money, equipment, materials, tools, information, natural, financial and physical resources and appropriate technologies including analytical and/or design software)	Demonstrate an inability to involve multiple resources	Show a limited diversity in terms of use of resources	Demonstrate the involvement of two types of resources with their linkage / need not emphasized	Demonstrate the involvement of three resources with their linkage / need adequately emphasized	Demonstrate the involvement of three or more diverse resources with their linkage / need clearly emphasized
EA5	Familiarity with approaches	Demonstrates no extension of previous experiences in applying principles-based approaches	Demonstrates limited extension of previous experiences in applying principles-based approaches	Demonstrate adequate extension of previous experiences in applying principles-based approaches	Demonstrate reasonable extension of previous experiences in applying principles-based approaches	Demonstrate extension of previous experiences in applying principles-based approaches