DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSD415 PROJECT PHASE-I

Guidelines

Release Version	Revision Date	Prepared by	Verified by	Approved by
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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1. PREREQUISITE

These guidelines aim to provide students and faculty members of the Department of Computer Science and Engineering with a set of procedures and expectations to facilitate a smoother, more predictable, and successful project evaluation process. Additionally, these guidelines represent the minimum requirements for obtaining a B.Tech degree awarded by APJ Abdul Kalam Technological University.

2. IMPORTANCE OF UG PROJECTS

The final year project holds paramount importance during our engineering degree. Referring to IEEE's definition of engineering:

"Engineering is that profession in which knowledge of the mathematical, computational, and natural sciences gained by study, experience, and practice is applied with judgment to develop economically effective use of matter, energy, and information to the benefit of humankind."

Engineering is essentially the application of knowledge, and this application must be done with judgment to ensure efficiency and benefit to society. Projects serve as a key determinant of an engineering student's quality.

To achieve successful completion of B.Tech Projects, the following guidelines are provided to ensure uniform regulation during Phase I/Phase II. The Department will assign two faculty members as the Project Coordinator, responsible for overseeing project-related activities such as conducting reviews and maintaining records.

The key issues to be addressed while pursuing projects are as follows:

1. Selection of a project
2. Planning, executing, and managing a project
3. Documenting a project
4. Assessment of a project

These guidelines are crucial in ensuring that projects are carried out effectively and consistently, enabling students to showcase their engineering skills and contribute to the betterment of society.

3. ALLOTMENT OF A PROJECT

Students should invest a significant amount of time in their projects; therefore, it is crucial for them to select projects of their choice. However, choosing a specific project does not automatically guarantee qualification for its successful completion. The project coordinator and guide play a vital role in assessing whether the students have the capabilities to carry out the chosen project effectively.

To promote a well-rounded learning experience, students are encouraged to opt for interdisciplinary and industrial projects. These types of projects offer valuable opportunities to apply knowledge from various fields and gain practical experience, enhancing their overall learning and skill development.

4. FORMATION OF PROJECT GROUPS

To ensure equal participation and engagement of all students, each project team shall consist of a maximum of **four** students. The formation of project groups should be done in a manner that ensures diversity within the group.

The groups should include students with varying academic merit, ranging from the best-performing to the average students. Additionally, the project groups must have a mix of domain expertise, encompassing different areas of knowledge and skills.

In cases where there are any students left unassigned to a group, they shall be randomly attached to any existing group to ensure everyone has the opportunity to participate and contribute to a project.

5. GUIDELINES

The students pursuing a partial completion of the B.Tech. Degree under APJ Abdul Kalam Technological University, in the Department of Computer Science and Engineering at St. Joseph's College of Engineering and Technology, Palai, must adhere strictly to the following guidelines:

1. A project team should consist of no more than four students, all of whom have common areas of interest.

2. The project team must identify their specific area/domain of interest and select a problem statement for which they will propose a solution.
3. The project team should approach a faculty member whose specialization or area of interest aligns with the chosen project domain and request their supervision.
4. A faculty member can supervise or guide a **maximum of two** project teams during a semester. In exceptional cases, additional candidates may be considered based on merit, with prior approval from the Head of the Department (HoD).
5. The project team must submit an abstract of their project, comprising a minimum of 300 words, to their project guide/guide for approval.
6. The final confirmation of the project topic will be determined by an evaluation committee appointed by the HoD in the presence of the respective guide, based on the assessment during the Zeroth review presentation.
7. If necessary, project reviews may be conducted on Saturdays as well.
8. The guide must stay fully informed about the project team's progress on a weekly basis, and the team should frequently report to the guide and provide updates.
9. The project team must maintain a comprehensive file containing all project details, including base papers, presentations, progress reports, preparation of conference/journal papers, and weekly updates with the guide.
10. The Interim Evaluation will focus on highlighting the project's topic, objectives, methodology, literature survey (a minimum of 12 surveys), problem statement, outcomes, and references.
11. The Final Evaluation will assess the literature reviews, problem statements, requirement analysis, preliminary reports, and the scope of work to be completed in phase-2.
12. If any project is found to have been acquired from external sources, the project team may be required to repeat the course.
13. During the project review, all team members must equally participate in delivering the presentation and responding to queries. Reading directly from slides will not be considered acceptable.
14. It is recommended to publish a survey paper in a National/International conference during the preliminary phase of the course project.
15. The Final Project report (Phase I) should be signed by the guide, Project Coordinator, and HoD and submitted to the Project Coordinator on the designated date.

The student is required to carry out original work throughout the project. If, at any stage, it is discovered that the work is not original, the project will be promptly rejected.

6. ASSIGNING FACULTY GUIDE

Project guides may be assigned to each project group either based on the choice of the student group or by the HoD concerned

7. INTERACTION WITH PROJECT GUIDE

Students are expected to meet with their respective project guide regularly, at least once a week, during the course of the project. The frequency of these interactions may be adjusted based on mutual convenience. It is essential for students to maintain necessary documents or files containing all relevant details related to the project, such as reference papers, literature surveys, etc., which will be useful during discussions with the guide.

This system will facilitate easy and quick access to project details, aiding in the drafting of the project work. Additionally, students must be prepared to submit the file containing all project-related documents whenever requested by the project guide, coordinator, or Head of the Department (HoD).

Students are instructed and encouraged to produce an error-free report with the support of guide.

8. PROGRESS OF PROJECT MONITORING

The Undergraduate student project activity is extended over two semesters to ensure better progress. Customary monitoring is required for both Phase I and Phase II of the project. The progress of the project encompasses the following activities, which must be carefully monitored by the project coordinator and guides to ensure a successful project:

1. Problem identification
2. Requirements elicitation
3. Problem modelling
4. System analysis and specification
5. System design
6. Documentation
7. Project management

To ensure continuous monitoring during the progress of the project work, the following schedule and discussions shall be followed:

8.1 Zeroth Review

To ensure the proper conduction of each project, continuous monitoring of project progress will be carried out, first by the guide and then by the Project Evaluation Committee (PEC). For this purpose, three presentations will be conducted by each project group during each semester.

The zeroth review presentation will focus solely on the project problem. This presentation will be conducted by the PEC in the second week after the commencement of classes following the vacation period. It is assumed that students will have selected their projects during the vacation. During this presentation, the project group must provide a brief overview, including the main aim/objective of the project, the proposed methodology, the Gantt chart, and references, all within 10-15 slides.

The initial presentation must be shown to the respective project guide first, and upon their approval, it should be presented before the Project Evaluation Committee. The project will only be considered approved if it passes this presentation. In the event that the presentation does not meet the expected standard, the Committee may instruct the students, along with their guide, to modify the project within a week and redo the presentation. Alternatively, if the project is found to be below the required standard or infeasible, the project may be changed.

During this presentation, the PEC will evaluate and award marks to each student/group based on their project synopsis content, presentation, responses to queries, and attendance, with a maximum of **20 marks** (Evaluation will be based on Project Rubrics- PR1).

8.2 Interim Evaluation

The Interim Evaluation presentation of Project Phase-I will be scheduled by the PEC (Project Evaluation Committee) at the midpoint of the semester. This presentation aims to review the students' progress. Each project group is required to present their progress to their respective guides and obtain their approval (see the annexure for the format). After that, they must present the same progress before the PEC.

During the presentation, each group is also expected to make a concise presentation (not exceeding 10-15 slides) and clearly outline the agenda for the next one month. The PEC will evaluate and award marks to each student/group based on the project content, presentation quality, project progress, responses to queries, and attendance. The maximum marks allotted for this evaluation will be **20** (Evaluation criteria are defined in Project Rubrics: Interim Evaluation, available in the syllabus).

The PEC will finalize the marks right after the presentation and display them along with comments within one week from the presentation date.

8.3 Final Evaluation

The Final Presentation at the end of the seventh semester will be conducted by the PEC as per the date specified in the project calendar. This presentation will be attended by the PEC, along with all the guides and co-guides of the respective projects. During this presentation, the Committee will assess the students' progress.

Each project group is required to prepare a comprehensive project report, showcasing the complete six-month progress of the project. This report should be concise and include detailed methodologies and algorithms studied or adopted throughout the semester. The report must be signed by the guides and submitted to the PEC at least two days before the final presentation.

Additionally, the groups are expected to create a PowerPoint presentation, limited to 15-20 slides, and deliver it to the PEC. In this presentation, the PEC will evaluate and assign marks to each student/group based on the project content, presentation quality, project progress, responses to queries, and attendance. The maximum marks allotted for this evaluation will be **30** (Evaluation criteria are defined in Project Rubrics: Final Evaluation, available in the syllabus).

8.4 Project Schedule

Activity	Submission of Abstract	Zeroth Review	Interim Evaluation	Final Evaluation
Tentative Dates	24-08-2023	1st week of September	5th Week of October	1st Week of December

9. AWARD OF MARKS FOR PROJECTS

Sl No	Review	Evaluation Committee /Guide	Maximum Marks	Weightage
1	Zeroth Review	Evaluation Committee	20	25%
2	Interim evaluation			75%

3	Final Evaluation		30	-
4	Project Phase - I Report		20	-
5	Project progress evaluation	Project Guide	30	
Total Marks				**100**

10. DOCUMENTATION AND SUBMISSION

The project Phase 1 report must be submitted within the specified deadline to the project guide and subsequently to the project coordinator. Late submissions may not be acceptable, and if allowed, they will have consequences that may impact the final grade. Students will receive a prescribed format for preparing their project report, and they are required to adhere to this format.

Before making the final submission of your report, ensure that the certificate in your report is signed by your guide.

ANNEXURE

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B.TECH PROJECT PROPOSAL

Sl No	Contents	Details	
1	Number of students in the group		
2	Name of the students with registration number	Reg No	Name
3	Area of project work		
4	Tentative title of project work		
5	Abstract of project work		
6	Internal/ Industry project /Interdisciplinary		
7	Name and address of industry		
8	External guide from Industry / Other Department Name of the guide Designation Phone Number Email		
9	Name of Internal Guide (suggested)		
10	Whether you contacted guide		

Date: Signature of Student Members

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PROJECT APPROVAL FORM

1. Name of the students : ……
   ……
   ……
   ……
2. Title of the Project : ……
   ……
   ……
   ……
3. Name of the Internal guide : ……
4. External Guide : ……
   (Applicable for Inter disciplinary / industrial project only)

☐ APPROVED ☐ NOT APPROVED

Date:

Project Guide Project Coordinator

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ATTENDANCE REPORT FROM INDUSTRY

This is to certify that Mr. /Ms.…… …… student(s) of St. Joseph's college of Engineering and Technology, Palai has reported to Mr./Ms. …….. on …….. to do a project in partial fulfilment of his/her B.Tech. Programme in the course of ……..

Signature of the External Guide

Name and Designation of the External Guide :
Phone No :
E-mail ID :

Remarks by the External Guide (If any):

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PROJECT DIARY

Title of the project :
Batch (A/B) :
Guide Name :

Project Discussion

Batch Number		Date of the meeting	
Sl. No	Name of the students	Remarks	

Discussion Points:

Remarks by the Guide:

Dated Signature of the Project Guide

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REPORT BY STUDENT

Name of the students :
Batch No :
Guide Name :
Title of the project :

Sl No	Month	Date	Work Completed	Work Incomplete	Work Planned for next week	Signature of Guide	Signature of Project Coordinator	Signature of HoD
1	SEP							
2								
3								
4								
5	OCT							
6								
7								

8						.		
9	NOV							
10								
11								
12								
13	DEC							
14								
15								
16								

Project Coordinator

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REVIEW DETAILS AND REPORTS BY PROJECT GUIDE

Name of the students :
Batch No :
Guide Name :
Title of the project :

Review	Date	Suggestions	Signature of the guide
Zeroth			
Interim evaluation			
Final Evaluation			

Project Coordinator

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PROJECT EVALUATION FORM – ZEROTH REVIEW

PROJECT TEAM			
Sl No	**Register Number**	**Name of the Student**	**Guided by**
1			
2			
3			
4			

Rubrics for Assessing the Progress of the Work
Poor (1-0) Average (2) Good (3) Excellent (4)

Sl No	**Contents**	**Max. Marks**				
1	**Topic selection [CO2]**	**4**				
2	**Problem Definition [CO1]**	**4**				
3	**Literature survey, purpose and need of the project [CO1]**	**4**				
4	**Justification of project objectives [CO1]**	**4**				
5	**Project scheduling and distribution of work among team members [CO4]**	**4**				
	Total	**20**				

Proposal - Approved/ Rejected
If Rejected, Reason:

Date: **Signature of Evaluation Committee Member(s)**

Signature of Project Coordinator

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PROJECT EVALUATION FORM – INTERIM EVALUATION

Project Title:

PROJECT TEAM			
Sl No	**Register Number**	**Name of the Student**	**Guided by**
1			
2			
3			
4			

TEAM MEMBERS CONTRIBUTION AND PERFORMANCE			
Rubrics for Assessing the Progress of the Work			
Poor (0-3 Marks)	**Fair (4-6 Marks)**	**Very Good (7-9 Marks)**	**Outstanding (10 Marks)**

Evaluation Component		
Topic identification, selection, formulation of objectives and/or literature survey [CO1]		
Project Planning, Scheduling and Resource/Tasks Identification and allocation [CO4]		
Total		**20**

Expectations for the Next Review

Name & Signature

Evaluation Committee Member

Project Coordinator

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PROJECT EVALUATION FORM – FINAL EVALUATION

Project Title:

PROJECT TEAM			
Sl No	**Register Number**	**Name of the Student**	**Guided by**
1			
2			
3			
4			

TEAM MEMBERS CONTRIBUTION AND PERFORMANCE				
Rubrics for Assessing the Progress of the Work				
1- Unacceptable	2-Marginal	3-Average	4-Good	5-Excellent

Evaluation Component	**Marks**	**Team Members**			
		1	**2**	**3**	**4**
Formulation of Design and/or Methodology and Progress [CO1]	**5**				
Individual and Teamwork Leadership [CO3]	**10**				
Preliminary Analysis/Modeling /Simulation/Experiment /Design/ Feasibility study [CO1]	**5**				
Documentation and presentation [CO6]	**10**				
Total	**30**				

Expectations for the Phase-II

Name & Signature

Evaluation Committee Member

Project Coordinator

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PROJECT EVALUATION FORM – GUIDE

Project Title:

PROJECT TEAM			
Sl No	**Register Number**	**Name of the Student**	**Guided by**
1			
2			
3			
4			

TEAM MEMBERS CONTRIBUTION AND PERFORMANCE			
Rubrics for Assessing the Progress of the Work			
Poor (0-3 Marks)	**Fair (4-6 Marks)**	**Very Good (7-9 Marks)**	**Outstanding (10 Marks)**

Evaluation Component	**Max. Marks**	**Team Members**			
		1	**2**	**3**	**4**
Regularity, Self-Motivation & Determination	**10**				
Working within a Team	**10**				
Technical knowledge and Awareness related to the project	**10**				
Total	**30**				

Expectations for the next meting

Date: **Name & Signature of the Project Guide**

PR1: RUBRICS FOR PROJECT PRELIMINARY - Zeroth REVIEW

	Criteria	Level of Achievement			
		Excellent (4)	Good (3)	Average (2)	Poor (1-0)
1	Topic selection	Complete Innovative and useful for society/industry	Somewhat innovative and useful for society/industry	Useful for society/industry but not innovative	Useful for limited group and not innovative
2	Problem Definition	Exceeds expectation. Identification of the social, environmental and ethical issues of the project problem	Extend expectation in some manner. Problem and its implications well understood and described both in viva	Meets expectation in some manner. Problem and its implications understood but not well described or presented.	Nearly meet expectations Steps to be followed to solve the defined problem are not specified properly
3	Literature Survey Purpose and need of the project	Outstanding investigation in all aspects. Detailed and extensive explanation of the purpose and need of the project	Well-researched project, good depth and thoroughness, sensible planning of research and well referenced throughout. Collects a great deal of information and good study of the existing systems	Research is clear and structured. Appropriate coverage is present and referenced. Moderate study of the existing systems; collects some basic information	Minimal research or cursory coverage , minimal referencing, Moderate explanation of the purpose and need of the project
4	Justification of Project Objectives	All objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are clearly specified	Good justification to the objectives; Methodology to be followed is specified but detailing is not done	Incomplete justification to the objectives proposed; Steps are mentioned but unclear; without justification to objectives	Limited information Only Some objectives of the proposed work are defined;
5	Project Scheduling & Distribution of Work among Team members	Detailed and extensive Scheduling with timelines provided for each phase of project. Work breakdown structure well defined.	Good Scheduling of project. Work breakdown structure properly defined.	Moderate scheduling of project. Work breakdown insufficient	Poor / No Project scheduling done. No Work breakdown structure provided.

CSD415	PROJECT PHASE I	CATEGORY	L	T	P	CREDIT
		PWS	0	0	6	2

Preamble: The course 'Project Work' is mainly intended to evoke the innovation and invention skills in a student. The course will provide an opportunity to synthesize and apply the knowledge and analytical skills learned, to be developed as a prototype or simulation. The project extends to 2 semesters and will be evaluated in the 7th and 8th semester separately, based on the achieved objectives. One third of the project credits shall be completed in 7th semester and two third in 8th semester. It is recommended that the projects may be finalized in the thrust areas of the respective engineering stream or as interdisciplinary projects. Importance should be given to address societal problems and developing indigenous technologies.

Course Objectives

- To apply engineering knowledge in practical problem solving.
- To foster innovation in design of products, processes or systems.
- To develop creative thinking in finding viable solutions to engineering problems.

Course Outcomes [COs] : After successful completion of the course, the students will be able to:

CO1	Model and solve real world problems by applying knowledge across domains (Cognitive knowledge level: **Apply**).
CO2	Develop products, processes or technologies for sustainable and socially relevant applications (Cognitive knowledge level: **Apply**).
CO3	Function effectively as an individual and as a leader in diverse teams and to comprehend and execute designated tasks (Cognitive knowledge level: **Apply**).
CO4	Plan and execute tasks utilizing available resources within timelines, following ethical and professional norms (Cognitive knowledge level: **Apply**).
CO5	Identify technology/research gaps and propose innovative/creative solutions (Cognitive knowledge level: **Analyze**).
CO6	Organize and communicate technical and scientific findings effectively in written and oral forms (Cognitive knowledge level: **Apply**).

Mapping of course outcomes with program outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	1	2	2	2	1	1	1	1	2
CO2	2	2	2		1	3	3	1	1		1	1
CO3									3	2	2	1
CO4					2			3	2	2	3	2
CO5	2	3	3	1	2							1
CO6					2			2	2	3	1	1

Abstract POs defined by National Board of Accreditation			
PO#	**Broad PO**	**PO#**	**Broad PO**
PO1	Engineering Knowledge	PO7	Environment and Sustainability
PO2	Problem Analysis	PO8	Ethics
PO3	Design/Development of solutions	PO9	Individual and team work
PO4	Conduct investigations of complex problems	PO10	Communication
PO5	Modern tool usage	PO11	Project Management and Finance
PO6	The Engineer and Society	PO12	Lifelong learning

PROJECT PHASE I

Phase 1 Target

- Literature study/survey of published literature on the assigned topic
- Formulation of objectives
- Formulation of hypothesis/ design/ methodology
- Formulation of work plan and task allocation.
- Block level design documentation
- Seeking project funds from various agencies
- Preliminary Analysis/Modeling/Simulation/Experiment/Design/Feasibility study
- Preparation of Phase 1 report

Evaluation Guidelines & Rubrics

Total: 100 marks (Minimum required to pass: 50 marks).

- Project progress evaluation by guide: 30 Marks.
- Interim evaluation by the Evaluation Committee: 20 Marks.
- Final Evaluation by the Evaluation Committee: 30 Marks.
- Project Phase - I Report (By Evaluation Committee): 20 Marks.

(The evaluation committee comprises HoD or a senior faculty member, Project coordinator and project supervisor).

Evaluation by the Guide

The guide/supervisor shall monitor the progress being carried out by the project groups on a regular basis. In case it is found that progress is unsatisfactory it shall be reported to the Department Evaluation Committee for necessary action. The presence of each student in the group and their involvement in all stages of execution of the project shall be ensured by the guide. Project evaluation by the guide: 30 Marks. This mark shall be awarded to the students in his/her group by considering the following aspects:

Topic Selection: innovativeness, social relevance etc. (2)

Problem definition: Identification of the social, environmental and ethical issues of the project problem. (2)

Purpose and need of the project: Detailed and extensive explanation of the purpose and need of the project. (3)

Project Objectives: All objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are clearly specified. (2)

Project Scheduling & Distribution of Work among Team members: Detailed and extensive Scheduling with timelines provided for each phase of project. Work breakdown structure well defined. (3)

Literature survey: Outstanding investigation in all aspects. (4)

Student's Diary/ Daily Log: The main purpose of writing daily diary is to cultivate the habit of documenting and to encourage the students to search for details. It develops the students' thought process and reasoning abilities. The students should record in the daily/weekly activity diary the day to day account of the observations, impressions, information gathered and suggestions given, if any. It should contain the sketches & drawings related to the observations made by the students. The daily/weekly activity diary shall be signed after every day/week by the guide. (7)

Individual Contribution: The contribution of each student at various stages. (7)

EVALUATION RUBRICS for PROJECT Phase I: Interim Evaluation						
No.	**Parameters**	**Marks**	**Poor**	**Fair**	**Very Good**	**Outstanding**
1-a	Topic identification, selection, formulation of objectives and/or literature survey. (Group assessment) [CO1]	10	The team has failed to come with a relevant topic in time. Needed full assistance to find a topic from the guide. They do not respond to suggestions from the evaluation committee and/or the guide. No literature review was conducted. The team tried to gather easy information without verifying the authenticity. No objectives formed yet.	The team has identified a topic. The originally selected topic lacks substance and needs to be revised. There were suggestions given to improve the relevance and quality of the project topic. Only a few relevant references were consulted/ studied and there is no clear evidence to show the team's understanding on the same. Some objectives identified, but not clear enough.	Good evidence of the group thinking and brainstorming on what they are going to build. The results of the brainstorming are documented and the selection of topic is relevant. The review of related references was good, but there is scope of improvement. Objectives formed with good clarity, however some objectives are not realistic enough.	The group has brainstormed in an excellent manner on what they were going to build. The topic selected is highly relevant, real world problem and is potentially innovative. The group shows extreme interest in the topic and has conducted extensive literature survey in connection with the topic. The team has come up with clear objectives which are feasible.
			(0 – 3 Marks)	(4 – 6 Marks)	(7 - 9 Marks)	(10 Marks)
1-b	Project Planning, Scheduling and Resource/ Tasks Identification and allocation. (Group assessment) [CO4]	10	No evidence of planning or scheduling of the project. The students did not plan what they were going to build or plan on what materials / resources to use in the project. The students do not have any idea on the budget required. The team has not yet decided on who does what. No project journal kept.	Some evidence of a primary plan. There were some ideas on the materials /resources required, but not really thought out. The students have some idea on the finances required, but they have not formalized a budget plan. Schedules were not prepared. The project journal has no details. Some evidence on task allocation among the team members.	Good evidence of planning done. Materials were listed and thought out, but the plan wasn't quite complete. Schedules were prepared, but not detailed, and needs improvement. Project journal is presented but it is not complete in all respect / detailed. There is better task allocation and individual members understand about their tasks. There is room for improvement.	Excellent evidence of enterprising and extensive project planning. Gantt charts were used to depict detailed project scheduling. A project management/version control tool is used to track the project, which shows familiarity with modern tools. All materials / resources were identified and listed and anticipation of procuring time is done. Detailed budgeting is done. All tasks were identified and incorporated in the schedule. A well-kept project journal shows evidence for all the above, in addition to the interaction with the project guide. Each member knows well about their individual tasks.
			(0 – 3 Marks)	(4 – 6 Marks)	(7 - 9 Marks)	(10 Marks)
Phase 1 Interim Evaluation Total Marks: 20						

EVALUATION RUBRICS for PROJECT Phase I: Final Evaluation

Sl. No.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
1-c	Formulation of Design and/or Methodology and Progress. (Group assessment) [CO1]	5	None of the team members show any evidence of knowledge about the design and the methodology adopted till now/ to be adopted in the later stages. The team has not progressed from the previous stage of evaluation.	The students have some knowledge on the design procedure to be adopted, and the methodologies. However, the team has not made much progress in the design, and yet to catch up with the project plan.	The students are comfortable with design methods adopted, and they have made some progress as per the plan. The methodologies are understood to a large extent.	Shows clear evidence of having a well- defined design methodology and adherence to it. Excellent knowledge in design procedure and its adaptation. Adherence to project plan is commendable.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
1-d	Individual and Teamwork Leadership (Individual assessment) [CO3]	10	The student does not show any interest in the project activities, and is a passive member.	The student show some interest and participates in some of the activities. However, the activities are mostly easy and superficial in nature.	The student shows very good interest in project, and takes up tasks and attempts to complete them. Shows excellent responsibility and team skills. Supports the other members well.	The student takes a leadership position and supports the other team members and leads the project. Shows clear evidence of leadership.
			(0 – 3 Marks)	(4 – 6 Marks)	(7 - 9 Marks)	(10 Marks)
1-e	Preliminary Analysis/ Modeling / Simulation/ Experiment / Design/ Feasibility study [CO1]	10	The team has not done any preliminary work with respect to the analysis/modeling/ simulation/experiment/desig n/feasibility study/ algorithm development.	The team has started doing some preliminary work with respect to the project. The students however are not prepared enough for the work and they need to improve a lot.	There is some evidence to show that the team has done good amount of preliminary investigation and design/ analysis/ modeling etc. They can improve further.	Strong evidence for excellent progress in the project. The team has completed the required preliminary work already and are poised to finish the phase I in an excellent manner. They have shown results to prove their progress.
			(0 – 3 Marks)	(4 – 6 Marks)	(7 - 9 Marks)	(10 Marks)

1-f	Documentation and presentation. (Individual & group assessment). [CO6]	5	The team did not document the work at all. The project journal/diary is not presented. The presentation was shallow in content and dull in appearance. The individual student has no idea on the presentation of his/her part.	Some documentation is done, but not extensive. Interaction with the guide is minimal. Presentation include some points of interest, but overall quality needs to be improved. Individual performance to be improved.	Most of the project details were documented well enough. There is scope for improvement. The presentation is satisfactory. Individual performance is good.	The project stages are extensively documented in the report. Professional documentation tools like LaTeX were used to document the progress of the project along with the project journal. The documentation structure is well-planned and can easily grow into the project report. The presentation is done professionally and with great clarity. The individual's performance is excellent.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
Total		**30**	**Phase - I Final Evaluation Marks: 30**			

EVALUATION RUBRICS for PROJECT Phase I: Report Evaluation						
Sl. No.	**Parameters**	**Marks**	**Poor**	**Fair**	**Very Good**	**Outstanding**
1-g	Report [CO6]	20	The prepared report is shallow and not as per standard format. It does not follow proper organization. Contains mostly Unacknowledged content. Lack of effort in preparation is evident.	Project report follows the standard format to some extent. However, its organization is not very good. Language needs to be improved. All references are not cited properly in the report.	Project report shows evidence of systematic documentation. Report is following the standard format and there are only a few issues. Organization of the report is good. Most of references are cited properly.	The report is exceptionally good. Neatly organized. All references cited properly. Diagrams/Figures, Tables and equations are properly numbered, and listed and clearly shown. Language is excellent and follows standard styles.
			(0 - 7 Marks)	(8 - 12 Marks)	(13 - 19 Marks)	(20 Marks)
Phase - I Project Report Marks: 20						