Dr Vishwanath Karad MIT World Peace University

School of Computer Engineering and Technology [SCET]

B.Tech [CSE] Capstone Projects [2022 -2023]

SEMESTER PATTERN

Log-book

CONTENTS

PREFACE

This document is prepared for B.Tech. (CSE), Students of School of Computer Engg. & Technology who are in final year of the course and undertaking project as a partial requirements for fulfillment of Bachelor of Technology degree under the University Dr. Vishwanath Karad MIT World Peace University. Students are required to carry out final year project which includes functional implementation of their innovative ideas in the form of software programs which may include hardware also. This document is designed to the students for organization of their work with proper scheduling and containing authentication of the work. The project work includes: conduction of various experiments, demonstration or exhibition of the functions, several documents preparations including project report and technical paper writings etc.

The assessment scheme is Individual based and Team based.. 60 % of the total Marks are reserved for Team assessment and 40% of total Marks are reserved for Individual assessment.The rubrics is also designed to fulfill the mentioned requirements.

During the assessment of the students' project work various criteria are addressed which includes, finalization of problem statements or project topics, feasibility & scope of the project work, literature survey and results & analysis.

It is expected that all students and Guides show follow the guidelines and manual of the University rules before conducting any student project activities. All students are expected to have exposure of the new software and hardware environments for the requirements of their expected tasks. It is advised to all students to show positive attitude and follow the ethics laid down by the University throughout the this course.

B.Tech. Capstone Project Course Outline

Course Code	**CET4061B**	
Course Category	**Project**	
Course Title	**Capstone Project**	
Teaching Scheme and Credits Weekly load hrs	**Laboratory**	**Total Credits**
	16 hr/wk	**8**

Capstone Project - Midterm along with * Throughout Guide Assessment

Course Objectives:

1. **Knowledge**
   i. To apply knowledge of mathematics and fundamental concepts to formulate the problem statement
   ii. Understand the computing requirements to find its solution
2. **Skill.**
   i. Understand key ethical and social issues affecting the problem statement
   ii. incorporate SDLC to identify appropriate processes, components and make use modern engineering tools
3. **Attitude**
   i. To present orally ideas and concepts clearly in an organized manner

Course Outcomes:

1. Demonstrate the ability to apply knowledge of mathematics and fundamental concepts to formulate the problem statement
2. Analyze a problem and identify and define the computing requirements for its solution.
3. Aware of key ethical and social issues affecting the problem statement
4. Design a computer based system, process, component or program as well as design non-computing requirements.
5. Demonstrate the design of computing system by making use of appropriate modern engineering tools
6. Orally communicate ideas and concepts clearly and in an organized manner and write clear system documentation reflecting the solution on paper

Assessment:

The students are directed to form groups and all members of the group jointly work towards the implementation of the project. The selection of the project and topic finalization is based on the approval of review committee. Every group is required to submit interim project report at the end of the first term. The report should include aims, objectives, literature survey, problem statement and proposed architecture/ high level design of the project and the project plan.

The term work evaluation will be done by the examiners in consultation with the guide. Oral examination will be based on the project work completed by the candidates. The project report must also be presented during the oral examination.

Midterm Assessment Marks				Total	Credits
Problem Statement	**Requirements Gathering**	**System Design**	**Individual contribution with Module Design**		
5 Marks	5 Marks	10 Marks	20 Marks	40Marks	2

Capstone Project - EndTerm along with *Throughout Guide Assessment

Course Objectives:

1. **Knowledge**
   i. To develop a computer based system using appropriate algorithms to reach an optimum solution
   ii. To examine and utilise modern skills, techniques and tools for computing practice leading to lifelong learning
2. **Skill**
   i. To evaluate, test and analyse developed computer based system
   ii. To demonstrate work ethics in teams to effectively manage conflicts
3. **Attitude**
   To compose well-supported documentation of the work and inculcate oral defence skills

Course Outcomes:

1. Develop a computer based system using appropriate algorithms to reach an optimum solution
2. Examine and utilise modern skills, techniques and tools for computing practice leading to lifelong learning
3. Evaluate, test and analyse developed computer-based system
4. Demonstrate work ethics in teams to effectively manage conflicts
5. Compose well-supported documentation of the work and inculcate oral defence skills

Course outline and policy:

The Student will undertake one project over the academic year, which will involve the analysis, design of a system or sub system in the area of Computer Science and Engineering.

A. The Workable project.
B. Project report in the form of bound journal complete in all respect – 1 copy for the Institute and 1 copy of each student in the group for certification.

The term work will be accessed by the examiners in consultation with the guide. Oral examination will be based on the project work completed by the candidates. Project report work completed by candidates. Project report must also be presented during the oral examination. The project report contains the details.

1. Problem definition
2. Requirement specification
3. System design details (UML diagrams)
4. System implementation – code documentation – dataflow diagrams/ algorithm, protocols used.
5. Test result and procedure – test report.
6. Platform choice use.
7. Conclusions.
8. Appendix tools used, References.

EndTerm Assessment Marks		**Total**	**Credits**
Individual Assessment	Group Assessment (LCA)		
40 Marks	**60 Marks**	**100 Marks**	**6**
*** Throughout Guide Assessment : 60 Marks**			
Total = Midterm [40 Marks] +External assessment [100 Marks] + Internal Project Guide Assessment [60 Marks] = 200 MARKS			

RULES : DO's & DON'T's

Be punctual: it is advised to follow time lines because project is mostly lab based activity. Therefore it is essential to perform all experiments in time.

No plagiarism: seek help from others instead of using someone's program as it is.

Learn from mistakes: make mistakes during the program developments but at the same time identify the reasons due to which errors occurred and rectify them well in time.

Project Group Information

Sr. No	PRN No	Name of the Student	Contact number	Email- ID
1	1032190599	Preetika Sastry	7757021620	preetika.sastry@gmail.com
2	1032192059	Pranav Nirmal	9923182133	nirmalpraanv187@gmail.com
3	1032192095	Ayush Shrivastav	9503177947	ayushnshrivastav@gmail.com
4	1032192119	Aniket Sharma	8149444794	aniketsharma2468@gmail.com

Name of the Internal Guide : Dr. Vrushali Y. Kulkarni
Contact details : vrushali.kulkarni@mitwpu.edu.in , 9850881090

Undertaking by Students

We, the students of Final Year B. Tech. CSE (**Gr.ID**) **B17** hereby assure that we will follow all the rules and regulations related to the B.Tech. project activity assigned by MIT World peace University for the academic year 20 - 20 .

The Project entitled – "**Hematology report data extraction and inference generation**"

Will be fully designed/developed by us. Any part of the project's hardware & software will not be purchased from outside parties for direct use and any part of software shall not be plagiarized. If such things are found by examiner, we are responsible for further consequences.

Sr. No	**Name of the Student (Panel&PRN)**	**Signature**
1	Preetika Sastry (B, 1032190599)	Preetika Sastry
2	Pranav Nirmal (B, 1032192059)	Pranav Nirmal
3	Ayush Shrivastav (B, 1032192095)	Ayush Shrivastav
4	Aniket Sharma (B, 1032192119)	Aniket Sharma

Finalization of Project Title

(**Based on Feasibility Review by Team Project Coordinators**)

Proposed Project Title

Hematology report analysis and diagnosis generation

Sr. No.	Parameters	Reviewer project coordinator_1 remarks	Reviewer project coordinator_2 remarks
1.	Significance/ Applicability		
2.	Originality of Idea		
3.	Innovativeness		
4.	Scope		
5.	Feasibility		

Finalized Project Title **Hematology report data extraction and inference generation**

Name and Signature of **Reviewer coordinator_1**

Name and Signature of **Reviewer coordinator_2**

B.Tech.Capstone Project Schedule - Jan-June

Sr. No	Name of the Activity	Duration
1.	Project Group Formation:	Week 1
2.	Project Topic Registration	Week 1
3.	Project Topic Finalization	Week 2-3
4.	Guide Allocation	Week 2
5.	Requirements Gathering and Analysis	Week 2-3
6.	Project Design (The software Engineering Diagrams)	Week 4-5
7.	Synopsis submission	Week 5
8.	Survey paper publication in consultation with Guide	-
9.	MIDTERM EXAM	Week 11
10.	Implementation of Project	Week 7-13
12.	Project Testing	Week 13-15
13.	Project Deployment	Week 13-15
14.	Final Project Report submission	Week 15
15.	Implementation paper paper publication in consultation with Guide	Week 16
16.	ENDTERM EXAM	Week 16

Weekly Activity Chart

Month: JANUARY

Week No.	Activity	Activity Completed	Students Sign	Internal/External Guide sign
1	Group formation			
2	Problem selection			
3	Problem definition			

Weekly Activity Chart

Month: FEBRUARY

Week No.	Activity	Activity Completed	Students Sign	Internal/External Guide sign
1	Requirement definition			
2	Requirement definition			
3	Requirement gathering			
4	Literature survey , Requirement gathering (Dataset sourcing)			
5	Literature survey, Requirement gathering (Dataset sourcing)			

Weekly Activity Chart

Month: MARCH

Week No.	Activity	Activity Completed	Students Sign	Internal/External Guide sign
1	Literature survey , Requirement gathering (Dataset sourcing)			
2	System diagrams, Dataset sourcing			
3	System diagrams, Dataset sourcing			
4	System diagrams, Dataset sourcing			
5	Mid-term report drafting			

Weekly Activity Chart

Month: APRIL

Week No.	Activity	Activity Completed	Students Sign	Internal/External sign
1	Mid-term exam			
2	Mid-term exam			
3	Dataset creation			
4	Dataset creation, Model development			
5	Model development, Report generation module development			

Weekly Activity Chart

Month: MAY

Week No.	Activity	Activity Completed	Students Sign	Internal/External sign
1	Model development, Report generation module development, GUI building, Documentation			
2	Testing, Documentation			
3	Testing, Documentation			
4	End term evaluation/ submission			

CONTRIBUTION/ACHIEVEMENTS/ RESEARCH OUTPUT

Group No.	Project Title	Area of Specialization	Contribution/ Achievements/ Research Output	Publication /Patents
B17	Hematology report data extraction and inference generation	Healthcare, Deep learning	Automated the process of structured data extraction from hematology report images.	

Name of Internal Guide: Dr. Vrushali Y. Kulkarni Signature of Internal Guide:

Participation in Project competitions

Sr.No.	Name & Place of project competition / Exhibition	Date	Certificate/Prizes won (if any)

(Attach photocopy of certificate/s)

Paper publication / Presentation

Sr.No.	Name of the organizing society/Journal	Date	Certificate/Prizes won (if any)
	(In progress)		

(Attach photocopy of certificate/s)

CHECK LIST FOR B.Tech. PROJECT SUBMISSION

1. Students should prepare a synopsis copy as per given format. The synopsis should clearly mention the Team contribution and individual contribution of the student

2. Each group should submit the hard copy of synopsis with Guides signature and also upload the soft copy of the same.

3. All project groups should complete the working project and prepare project report as per prescribed format.

4. Each group should submit one CD which should include

Synopsis

Project code and executable

Midterm PPTS

Project Reports [BLACK BOUND,GOLDEN EMBOSSING,2 COPIES]

Endterm PPTS

Reference material

Certificates of Project competition/paper presentation competition

* All detailed formats of **Project Reports,Evaluation formats** in document form are shared with staff and students as required.

*Required PPTs templates for MidTerm and EndTerm exams are circulated to students.

B.Tech. Capstone Project – Marks and rubrics

Annexure – A

(60% of Marks is group evaluation and 40% of Marks is individual evaluation)

Internal Assessment Marks- 100 Mks

Guide Assessment	MidTerm Review
60	40

External Assessment Marks– 100 Mks

External Assessed Individual Marks	External Assessed Group Marks
40	60

Internal Assessment-100 marks - Rubrics

Guide Assessment						MidTerm Review			
60						40			
Individual Aim	Individual Objective	Literature Survey and Requirements Gathering	Systems Design	Implementation	Report	Problem Statement	Requirement Gathering	System Design	Individual contribution with module design
10	10	10	15	10	5	5	5	10	20

External Assessment Marks- 100 Mks - Rubrics

External Assessed Individual Marks					External Assessed Group Marks				
40					60				
Individual Aim	Individual Objective	Individual contribution with module design	Programming and ethics	Q/A	Literature survey & Requirements Gathering	System Design	Implementation & Testing	Team Coordination	Communication & presentation skills
5	5	10	10	10	10	10	10	20	10

Some Key aspects as per IET requirements :-

The aspects of **Security** shall be taken care of in **Implementation** and **Deployment strategies.**

The aspects of **Risk Management,Sustainability,Quality managemen**t shall be taken care of at Requirements Gathering and Design stage.

Adverse environmental impacts if at all shall be observed during the **testing** phase.