VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSQ 413 SEMINAR
2019-23 BATCH
GUIDELINES FOR SEMINAR

Students should identify a topic of current relevance in Computer Science and Engineering (preferably based on the area of interest they select for their project), get approval from their respective guides allocated, based on the base paper selected prepare a power point presentation in LATEX and also submit the report prepared in LATEX.

1. Seminar topic must be approved by the concerned guide and they should submit the approval form to the coordinators.
2. Prior approval for slides and reports should be obtained from their respective guides. Presentations will be cancelled for candidates without prior approval.
3. In case of any inconvenience for not performing the presentation on the assigned date, they will have to inform the guide & coordinator in advance & get permission.
4. If any student is absent on the day of presentation without prior permission, he/she will be given "0" marks for the presentation.
5. Each student will be allotted with a presentation time of 20 Minutes (15 Minutes for presentation and 5 Minutes for Viva)
6. Start creating Seminar report immediately after getting topic approval in Latex and submit rough report at the time of presentation and fair report within one week after presentation.

Follow the guidelines for effective presentation:

1. Medium of communication is English.
2. The entire paper /subtopics should be covered in the PPT.
3. Slide number can vary from 20 to 25 maximum.
4. Time allotted for each presentation is 20 minutes maximum.
5. Use a light (pref. white) background and dark font for slide content. Include slide number. Use a uniform pattern of font and font size throughout the PPT.
6. Include hyperlinks to image/algorithm only if necessary,- in order to zoom its size.
7. Start creating the Seminar final report immediately after your presentation in Latex for submission.

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSQ 413 SEMINAR
2019-23 BATCH

SEMINAR SLIDE CONTENTS

1. Title slide
   - Name of paper
   - Student name
   - University Register Number
   - Batch
   - Course
   - Prof./Mr/Ms. Guide Name(properly spelled)
2. Contents
3. Abstract
4. Introduction
5. Objective
6. Methodology, System Architecture etc as per the paper selected.
7. Conclusion
8. References

- All slides should be numbered and should contain the date of presentation. All slides should have header specifying College name and Department.
- You should cite the references clearly.

When you cite the sources of information in the Slide / Report, you give a number in brackets that corresponds to the number of the source listed in the order in which they appear in the report, the source listed first as [1], the next source [2], etc.

For example:

Jenkins and Busher report that beavers eat several kinds of herbaceous plants as well as the leaves, twigs, and bark of most species of woody plants that grow near water [1].

Beavers have been shown to be discriminate eaters of hardwoods [2].

References will be given like this

[1] S.H. Jenkins and P.E. Busher, "Castor canadensis," *Mammalian Species.*

Vol. 20, Jan. 1979.

[2] H.S. Crawford, R.G. Hooper, and R.F Harlow, *Woody Plants Selected by Beavers in the Appalachian and Valley Province*. Upper Darby, PA: U.S. Department of Agriculture, 1976.

SEMINAR REPORT CONTENTS

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
ACCREDITED BY IEI, NBA & NAAC • ISO 9001:2015 CERTIFIED
AFFILIATED TO KTU • APPROVED BY AICTE

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CSQ413 SEMINAR

VJ/CSE/SP/2022/16

19.09.2022

APPOINTMENT ORDER

Dear Sir/Madam,

Sub: - VII[th] Semester B.Tech – SEMINAR – CSQ 413– SEPTEMBER 2022– Guide List– CSE B.

I have great pleasure to inform you that you are appointed as Supervisor for **CSQ 413-SEMINAR**. Kindly accept the appointment.

Details are given below:

Sl. No.	University registrar number	Name	Group No.	Guide
1	VML19CS044	Aysha nahadha	1	Ms.Ujwala Vijayan
2	VML19CS081	Gayathri p.v		
3	VML19CS012	**Akshay jayachandran (L)**		
4	VML19CS048	Deekshith		
5	VML19CS052	Diya P	2	Ms. Jeethu V Devasia
6	VML19CS091	Sanjuktha Sanjay		
7	VML19CS046	**Darsan Dinesh (L)**		
8	VML19CS012	Adwetha Falgunan		
9	VML19CS096	Shijas P	3	Ms. Jeethu V Devasia
10	VML19CS061	Harold Prakash		
11	VML19CS005	Achal Dev P		
12	VML19CS089	**Sanand Chandran (L)**		
13	VML19CS063	**Janvin Joseph(L)**	4	Ms. Jyothsna S Mohan
14	VML19CS069	Kiran Valsalan Nair		
15	VML19CS104	Sneha Anil		

Ph: 0460 2212240, 2213399 E-mail: office@vjec.ac.in Website: www.vjec.ac.in

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16	VML19CS094	Sharanya Ullas		
17	VML19CS007	Adila Farha P K	5	Mr. Abhiram P
18	VML19CS008	**Adithya T K (L)**		
19	VML19CS074	Nathasha K V		
20	VML19CS114	Vismaya Vinoth Kumar		
21	VML19CS030	Anjima Govindan	6	Mr. Rijin I K
22	VML19CS039	Arya Sajiv		
23	VML19CS084	Rhea Renjith		
24	VML19CS086	**Roby K S (L)**		
25	VML19CS021	Aleena Mathews	7	Ms. Rahna C. M.
26	VML19CS067	**Kavya Pushpan (L)**		
27	VML19CS054	Don Mariya		
28	VML19CS023	Alisha Mathews		
29	LVML19CS118	Kiran P P	8	Ms. Sisna P
30	LVML19CS116	Anurag A M		
31	LVML19CS117	**Aromal Prakash K V (L)**		
32	VML19CS112	Theerth M		
33	VML19CS065	Jithin Jose	9	Mrs. Namitha
34	VML19CS101	Sidharth A S		
35	VML19CS108	**Sooraj Mohan (L)**		
36	VML19CS028	Aneesha S	10	Mrs.Sreeraji Narayanan
37	VML19CS026	**Anagha P P (L)**		
38	VML19CS098	Shradha Sujith		
39	VML19CS037	Anusree Venu		
40	VML19CS058	**Farisa kp (L)**	11	Mr. Abdul Latheef
41	VML19CS050	Devika C		
42	VML19CS071	Mary Joy		
43	VML19CS106	Sona Jose		
44	VML19CS055	Eaby Thomas C	12	Ms. Manju M
45	VML19CS080	Puliyile Kandi Muhammed Jassim		
46	VML19CS024	**Amalraj (L)**		
47	VML19CS103	Sidharth Suresh Nambiar		

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48	VML19CS075	Nihal O	13	Mrs. Neena V V
49	VML19CS110	**Sreevedh Hareesh (L)**		
50	VML19CS083	Ranjul Arumadi		
51	VML19CS040	Ashwin S Nambiar		
52	VML19CS035	**Anupama K V (L)**	14	Ms. Suhada C
53	VML19CS031	Annapoorna K K		
54	VML19CS042	Athira Das		
55	VML19CS010	Adwaid M	15	Mrs. Divya K
56	VML19CS002	**Abhijai K (L)**		
57	VML19CS019	Alan Saji		
58	VML19CS015	Akhil Kumar		

Regards,

Dr. Jeethu V. Devasia

Professor & HoD CSE

Copy to

1. All faculty in CSE Department (through mail)

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Principal.VJEC

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ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
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NATIONAL BOARD OF ACCREDITATION ACCREDITED

NAAC ACCREDITED

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VJ/CSE/SP/2022/14

19.09.2022

OFFICE ORDER

Dear Sir/Madam,

Sub: VII Sem. B. Tech Degree CSQ413 SEMINAR INTERNAL EVALUATION COMMITTEE (IEC) CSE B (2019-23 Batch)

The following Internal Evaluation Committee (IEC) is hereby constituted for the evaluation of Seventh semester B.Tech Degree CSQ 413 Seminar. Kindly make it convenient to conduct evaluation of the Seminar as per the schedule. Expecting your cooperation.

Internal Evaluation Committee details for Seminar is given below:

1. Chairman: Mr. Abdul Latheef, Assistant Professor, CSE Dept.
2. Seminar Co-ordinator (Ms. Sreeraji Narayanan, A P, CSE)
3. Seminar Guide

Principal.VJEC

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Ph: 0460 2212240, 2213399 E-mail: office@vjec.ac.in Website: www.vjec.ac.in

EVALUATION RUBRICS FOR SEMINAR

Final Evaluation Marks: 100

Parameters	Marks	Poor	Fair	Very Good	Outstanding
Background Knowledge	**10**	The student have no evidence of knowledge about the seminar	The student have some knowledge about the seminar	The student have well knowledge about the seminar	The student have excellent knowledge about the seminar topic.
		[0-2]	[3-5]	[6--7]	[8-10]

Principal.VJEC

Relevance of the paper/topic selected	**10**	The students have failed to come with a relevant topic in time. Needed full assistance to find a topic from the guide. students do not respond to suggestions from the evaluation committee and /or the guide. The student tried to gather easy information without verifying the authenticity.	The student 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 topic. Only a few relevant references were consulted/ studied and there is no clear evidence to show the student's understanding of the same.	Good evidence of the thinking and brainstorming on what he/she is going to present. 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.	The student has brainstormed in an excellent manner on what they were going to present. The topic selected is highly relevant, real world problem and is potentially innovative. The student shows extreme interest in the topic and has conducted extensive literature survey in connection with the topic.
		[0-2]	[3-5]	[6--7]	[8-10]
Seminar Diary	**10**	The seminar diary is not presented	Some documentation is done, but not extensive. Interaction with the guide is minimal	Most of the details were documented well enough.	The documentation structure is well- planned and can easily grow into the seminar report.
		[0-2]	[3-5]	[6--7]	[8-10]

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Clarity of presentation	**10**	The student has no idea on the presentation of his/her topic.	Presentations include some points of interest, but overall quality needs to be improved. Performance to be improved	The presentation is satisfactory. Individual performance is good.	The presentation is done professionally and with great clarity. The individual's performance is excellent.
		[0-2]	[3-5]	[6--7]	[8-10]
Interactions	**10**	Could not deliver presentation, but presentation was prepared and attempted	Able to deliver fair presentation but not able to answer the questions	Deliver effective presentation, but able to answer partially to the queries	Deliver effective presentation, and able to answer all queries
		[0-2]	[3-5]	[6--7]	[8-10]
Overall participation	**10**	Student does not initiate contribution to presentation and Does not listen to others; regularly talks or does not pay attention during presentation	Student initiates contributions to at least 50 % of presentation and listens attentively when others present as indicated by comments. Occasionally needs encouragement or reminder from coordinator of focus of comment.	Student initiates contributions to at least 80 % of presentation and listens attentively during the presentation as indicated by comments. Occasionally needs encouragement or reminder from coordinator of focus of comment.	Student initiates contributions to all presentations and listens attentively during the presentation as indicated by comments.
		[0-2]	[3-5]	[6--7]	[8-10]

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Quality of the slides	**10**	Slides contain errors and lack a logical progression. Major aspects of the analysis or recommendations are present . Diagrams or graphics are absent or confuse the audience.	Slides contain some errors and there is less logical progression of main components of the process and recommendations. Material is mostly readable and graphics reiterate the main ideas.	Slides are error-free and logically present the main components of the process and recommendations. Material is mostly readable and graphics reiterate the main ideas	Slides are error-free and logically present the main components of the process and recommendations. Material is readable and the graphics highlight and support the main ideas.
		[0-2]	[3-5]	[6--7]	[8-10]
Report	**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 a few issues. Organization of the report is good. Most of the 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.
		[0-5]	[5-10]	[10-15]	[15-20]

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Dr. Jeethu V. Devasia HOD, CSE

Distributions:

1. Members concerned (through mail) Regards,

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSQ 413 SEMINAR

2019-23 BATCH

PROCEDURE

- Students should identify a topic of current relevance (in the year 2021/ 2022) in Computer Science and Engineering (preferably based on the area of interest they select for their project), get approval from their respective guides allocated, based on the base paper selected prepare a powerpoint presentation in LATEX and also submit the report prepared in LATEX during the presentation.
- The students can do the seminar presentation individually.
- The **Internal Evaluation Committee (IEC)** may be constituted for the seminar with academic co-ordinator for that program as the Chairperson/Chairman,seminar coordinator & seminar guide as members. During the seminar presentation of a student, all members of **IEC** shall be present.
- Start creating the Seminar final report immediately after your presentation in Latex for submission.

EVALUATION CRITERIA

- **Relevance of the paper/topic selected-** The topic should be highly relevant, real world problem and is potentially innovative.
- **Background Knowledge** – The guide shall give deserving marks for a candidate based on the candidate's background knowledge about the topic selected.
- **Seminar Diary** – Each student shall maintain a seminar diary and the guide shall monitor the progress of the seminar work on a weekly basis and shall approve the entries in the seminar diary during the weekly meeting of the

student

- **Clarity of presentation** - based on the candidate's ability to present the topic clearly and professionally.
- **Interactions** – to be based on the candidate's ability to answer questions during the interactive session of her/his presentation
- **Overall participation** – to be given based on her/his involvement during interactive sessions of presentations by other students
- **Quality of the slides**
- **Report** - check for technical content, overall quality, templates followed, adequacy of references etc.

RULES & REGULATIONS

- Every student is expected to submit minimum three topics of current relevance in Computer Science and engineering, get the approval of the guide, collect sufficient literature on the topic, study it thoroughly, prepare own report and present in the seminar presentation.
- Students have to refer to published papers from SCI/Scopus indexed journals or likes of Elsevier, Springer, IEEE published after 2020.
- All Students are supposed to maintain a seminar diary.
- Seminar work activities have to be recorded during seminar hours in the diary and also advised to get the signature from your Guide with Date, which will help us to monitor your progress.
- Absence during the presentation is considered only in case of emergency and critical situations. In all other cases, the marks for that presentation will be zero and no other chance will be provided.

- Seminar Report Submission: The seminar report must not be the offprint of the original base paper. Report preparation must be using LaTeX. The template will be provided. All batches have to submit a rough report on the day of the presentation and a final Bound Fair report signed by the guide 7 days after the presentation.
- All students should strictly follow the schedule and rules. Vacillating the rules and schedule will be noted and actions will be taken accordingly.
- Final decisions are taken by the coordinators and HOD.

GUIDELINES FOR THE REPORT PREPARATION

A bonafide report on the seminar shall be submitted within one week after the presentation. Minimum number of pages should be 40.

- Use Times New Roman font for the entire report – Chapter/Section Title – Times New Roman 18, Bold; Heading 2 – Times New Roman16, Bold; Heading 3 – Times New Roman 14, Bold; Body- Times New Roman 12, Normal.
- **Line Spacing** – Between Heading 2 – 3 lines, between lines in paragraph 1.5 lines.
- **Alignments** – Chapter/Section Title – Center, Heading 2 & 3 should be Left Aligned. Ensure that all body text is paragraph justified.
- **Figures & Tables** – Ensure that all Figures and Tables are suitably numbered and given proper names/headings.

Write figure title under the figure and table title above the table.

- **Suggestive order of documentation:**

i. Top Cover

ii. Title page

iii. Certification page

iv. Acknowledgement

v. Abstract

vi. Table of Contents

vii. List of Figures and Tables

viii. Chapters

ix. Appendices, if any

x. References/Bibliography

CONTINUOUS INTERNAL EVALUATION PATTERN

Total marks: 100, only CIE, minimum required to pass 50

Seminar Guide: 20 marks

Seminar Coordinator: 20 marks

Presentation evaluation by the IEC: 40 marks

Report (evaluation by IEC) : 20 marks

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSQ 413 SEMINAR- S7 CSE B (2019-2023 BATCH)

SEMINAR PRESENTATION SCHEDULE

Sl. No.	University	Name	Guide	Date	Time
1	VML19CS069	Kiran Valsalan Nair	Ms. Jyothsna S Mohan	26/10/2022 Wednesday	02:20 pm - 02:40 pm
2	VML19CS081	Gayathri p.v	Ms.Ujwala Vijayan		03:15 pm - 03:35 pm
3	VML19CS091	Sanjuktha Sanjay	Ms. Jeethu V Devasia		01:30 pm - 01:50 pm
4	VML19CS054	Don Mariya	Ms. Rahna C. M.		01:55 pm - 02 :15 pm
5	VML19CS065	Jithin Jose	Ms. Namitha P		02:40 pm - 03 :00 pm
6	VML19CS071	Mary Joy	Mr. Abdul Latheef		03:40 pm - 04 :00 pm
7	VML19CS028	Aneesha S	Ms.Sreeraji Narayanan	28/10/2022 Friday	02:00 pm - 02:20 pm
8	VML19CS015	Akhil Kumar	Mrs. Divya K		02:20 pm - 02:40 pm
9	VML19CS010	Adwaid M	Mrs. Divya K		02:40 pm - 03:00 pm
10	VML19CS037	Anusree Venu	Ms.Sreeraji Narayanan		03:00 pm - 03 :20 pm
11	VML19CS035	Anupama K V	Ms. Suhada C		03:20 pm - 03:40 pm
12	VML19CS012	Adwetha Falgunan	Ms. Jeethu V Devasia		03:40 pm - 04 :00 pm
13	VML19CS108	Sooraj Mohan	Ms. Namitha P	02/11/2022 Wednesday	02:20 pm - 02:40 pm
14	VML19CS063	Janvin Joseph	Ms. Jyothsna S Mohan		03:40 pm - 04 :00 pm
15	VML19CS096	Shijas P	Ms. Jeethu V Devasia		01.30 pm - 01:50 pm
16	VML19CS089	Sanand Chandran	Ms. Jeethu V Devasia		01:55 pm - 02 :15 pm
17	VML19CS112	Theerth M	Ms. Sisna P		03:15 pm - 03:35 pm
18	VML19CS110	Sreevedh Hareesh	Mrs. Neena V V		02:40 pm - 03 :00 pm
19	VML19CS044	Aysha nahadha	Ms.Ujwala Vijayan	04/11/2022 Friday	02:00 pm - 02:20 pm
20	VML19CS021	Aleena Mathews	Ms. Rahna C. M.		02:20 pm - 02:40 pm
21	VML19CS026	Anagha P P	Ms.Sreeraji Narayanan		02:40 pm - 03:00 pm
22	VML19CS050	Devika C	Mr. Abdul Latheef		03:00 pm - 03 :20 pm
23	VML19CS048	Deekshith	Ms.Ujwala Vijayan		03:20 pm - 03:40 pm
24	VML19CS007	Adila Farha P K	Mr. Abhiram P		03:40 pm - 04 :00 pm
25	VML19CS101	Sidharth A S	Ms. Namitha P	09/11/2022 Wednesday	01:55 pm - 02 :15 pm
26	VML19CS055	Eaby Thomas C	Ms. Manju M		01:30 pm - 01:50 pm
27	VML19CS083	Ranjul Arumadi	Mrs. Neena V V		02:20 pm - 02:40 pm
28	VML19CS074	Nathasha K V	Mr. Abhiram P		03:40 pm - 04 :00 pm
29	VML19CS094	Sharanya Ullas	Ms. Jyothsna S Mohan		03:15 pm - 03:35 pm
30	VML19CS075	Nihal O	Mrs. Neena V V		02:40 pm - 03 :00 pm

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31	VML19CS023	Alisha Mathews	Ms. Rahna C. M.	11/11/2022 Friday	02:00 pm - 02:20 pm
32	VML19CS031	Annapoorna K K	Ms. Suhada C		03:00 pm - 03 :20 pm
33	VML19CS005	Achal Dev P	Ms. Jeethu V Devasia		02:40 pm - 03:00 pm
34	VML19CS039	Arya Sajiv	Mr. Rijin I K		02:20 pm - 02:40 pm
35	VML19CS002	Abhijai K	Mrs. Divya K		03:20 pm - 03:40 pm
36	VML19CS008	Adithya T K	Mr. Abhiram P		03:40 pm - 04 :00 pm
37	VML19CS104	Sneha Anil	Ms. Jyothsna S Mohan	16/11/ 2022 Wednesday	02:20 pm - 02:40 pm
38	VML19CS067	Kavya Pushpan	Ms. Rahna C. M.		01:55 pm - 02 :15 pm
39	VML19CS061	Harold Prakash	Ms. Jeethu V Devasia		01:30 pm - 01:50 pm
40	VML19CS080	Muhammed Jassim	Ms. Manju M		02:40 pm - 03 :00 pm
41	VML19CS058	Farisa kp	Mr. Abdul Latheef		03:15 pm - 03:35 pm
42	VML19CS103	Nambiar	Ms. Manju M		03:40 pm - 04 :00 pm
43	LVML19CS117	Aromal Prakash K V	Ms. Sisna P	18/11/ 2022 Friday	03:40 pm - 04 :00 pm
44	VML19CS019	Alan Saji	Mrs. Divya K		02:20 pm - 02:40 pm
45	VML19CS042	Athira Das	Ms. Suhada C		02:40 pm - 03:00 pm
46	LVML19CS118	Kiran P P	Ms. Sisna P		03:00 pm - 03 :20 pm
47	LVML19CS116	Anurag A M	Ms. Sisna P		03:20 pm - 03:40 pm
48	VML19CS052	Diya P	Ms. Jeethu V Devasia		02:00 pm - 02:20 pm
49	VML19CS086	Roby K S	Mr. Rijin I K	23/11/2022 Wednesday	02:20 pm - 02:40 pm
50	VML19CS114	Kumar	Mr. Abhiram P		01:55 pm - 02 :15 pm
51	VML19CS098	Shradha Sujith	Ms.Sreeraji Narayanan		01:30 pm - 01:50 pm
52	VML19CS106	Sona Jose	Mr. Abdul Latheef		03:15 pm - 03:35 pm
53	VML19CS084	Rhea Renjith	Mr. Rijin I K		02:40 pm - 03 :00 pm
54	VML19CS046	Darsan Dinesh	Ms. Jeethu V Devasia	25/11/2022 Friday	03:20 pm - 03:40 pm
55	VML19CS024	Amalraj	Ms. Manju M		02:20 pm - 02:40 pm
56	VML19CS012	Akshay jayachandran	Ms.Ujwala Vijayan		03:00 pm - 03 :20 pm
57	VML19CS040	Ashwin S Nambiar	Mrs. Neena V V		02:40 pm - 03:00 pm
58	VML19CS030	Anjima Govindan	Mr. Rijin I K		02:00 pm - 02:20 pm

HOD

Coordinators

Sreeraji Narayanan

Abdul Lateef

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Principal.VJEC

2

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF CSE
CSQ413: SEMINAR CSB
S7 CSE B(2019-2023 BATCH)
TOPICS PRESENTATION SCHEDULE (13-10-2022)

Sl. No.	University registrar number	Name	Group No.	Time	Guide
1	VML19CS044	Aysha nahadha	1	03:00pm-03:15pm	Ms.Ujwala Vijayan
2	VML19CS081	Gayathri p.v			
3	VML19CS012	**Akshay jayachandran (L)**			
4	VML19CS048	Deekshith			
5	VML19CS052	Diya P	2	10:15am-10:30am	Ms. Jeethu V Devasia
6	VML19CS091	Sanjuktha Sanjay			
7	VML19CS046	**Darsan Dinesh (L)**			
8	VML19CS012	Adwetha Falgunan			
9	VML19CS096	Shijas P	3	10:30am-10:45am	Ms. Jeethu V Devasia
10	VML19CS061	Harold Prakash			
11	VML19CS005	Achal Dev P			
12	VML19CS089	**Sanand Chandran (L)**			
13	VML19CS063	**Janvin Joseph(L)**	4	09:45am-10:00am	Ms. Jyothsna S Mohan
14	VML19CS069	Kiran Valsalan Nair			
15	VML19CS104	Sneha Anil			
16	VML19CS094	Sharanya Ullas			
17	VML19CS007	Adila Farha P K	5	11:25am-11:40am	Mr. Abhiram P
18	VML19CS008	**Adithya T K (L)**			
19	VML19CS074	Nathasha K V			
20	VML19CS114	Vismaya Vinoth Kumar			
21	VML19CS030	Anjima Govindan	6	02.45pm-03.00pm	Mr. Rijin I K
22	VML19CS039	Arya Sajiv			
23	VML19CS084	Rhea Renjith			
24	VML19CS086	**Roby K S (L)**			
25	VML19CS021	Aleena Mathews	7	03:45pm-04:00pm	Ms. Rahna C. M.
26	VML19CS067	**Kavya Pushpan (L)**			
27	VML19CS054	Don Mariya			
28	VML19CS023	Alisha Mathews			
29	LVML19CS118	Kiran P P	8	03:15pm-03:30pm	Ms. Sisna P
30	LVML19CS116	Anurag A M			
31	LVML19CS117	**Aromal Prakash K V (L)**			
32	VML19CS112	Theerth M			
33	VML19CS065	Jithin Jose	9	02:15pm-02:30pm	Mrs. Namitha
34	VML19CS101	Sidharth A S			
35	VML19CS108	**Sooraj Mohan (L)**			
36	VML19CS028	Aneesha S	10	10.00am-10.15am	Mrs.Sreeraji Narayanan
37	VML19CS026	**Anagha P P (L)**			
38	VML19CS098	Shradha Sujith			
39	VML19CS037	Anusree Venu			
40	VML19CS058	**Farisa kp (L)**	11	10.45am-11.00am	Mr. Abdul Latheef
41	VML19CS050	Devika C			
42	VML19CS071	Mary Joy			

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43	VML19CS106	Sona Jose			
44	VML19CS055	Eaby Thomas C	12	01:45pm-02:00pm	Ms. Manju M
45	VML19CS080	Puliyile Kandi Muhammed Jassim			
46	VML19CS024	**Amalraj (L)**			
47	VML19CS103	Sidharth Suresh Nambiar			
48	VML19CS075	Nihal O	13	01:15pm-01:30pm	Mrs. Neena V V
49	VML19CS110	**Sreevedh Hareesh (L)**			
50	VML19CS083	Ranjul Arumadi			
51	VML19CS040	Ashwin S Nambiar			
52	VML19CS035	**Anupama K V (L)**	14	01:30pm-01:45pm	Ms. Suhada C
53	VML19CS031	Annapoorna K K			
54	VML19CS042	Athira Das			
55	VML19CS010	Adwaid M	15	03:30pm-03:45pm	Mrs. Divya K
56	VML19CS002	**Abhijai K (L)**			
57	VML19CS019	Alan Saji			
58	VML19CS015	Akhil Kumar			

Co-ordinators

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Principal.VJEC

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT GF COMPUTER SCIENCE AND ENGINEERING
CSQ413 SEMINAR CSE B (2019-2023 BATCH)
PRESENTATION MARK - SEMINAR GUIDE

Sl No	University Register Number	Student Name	Clarity of presentation (10)	Interactions (10)	Overall participation (10)	Quality of the slides (10)	TOTAL (60)	Report (20)	Signature
1	VML19CS069	Kiran Valsalan Nair	10	9	10	9	38	18	
2	VML19CS081	Gayathri p.v	9	9	10	9	37	18	
3	VML19CS091	Sanjuktha Sanjay	8	10	10	9	37	18	
4	VML19CS054	Don Mariya	8	6	10	8	32	18	
5	VML19CS065	Jithin Jose	8	9	10	8	35	18	
6	VML19CS071	Mary Joy	8	9	10	8	35	18	
7	VML19CS028	Aneesha S	9	9	9	9	36	18	
8	VML19CS015	Akhil Kumar	9	10	9	9	37	18	
9	VML19CS010	Adwaid M	8	5	5	9	27	18	
10	VML19CS037	Anusree Venu	10	9	10	9	38	18	
11	VML19CS035	Anupama K V	10	9	10	9	38	18	
12	VML19CS012	Adwetha Falgunan	9	10	10	9	38	18	

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29	VML19CS094	Sharanya Ullas	8	8	8	7	31	18	
30	VML19CS075	Nihal O	9	8	9	8	34	18	
31	VML19CS023	Alisha Mathews	6	6	8	6	26	18	
32	VML19CS031	Annapoorna K K	8	8	10	10	36	18	
33	VML19CS005	Achal Dev P	9	10	10	9	38	18	
34	VML19CS039	Arya Sajiv	10	9	9	10	38	18	
35	VML19CS002	Abhijai K	6	5	9	9	29	18	
36	VML19CS008	Adithya T K	10	9	10	9	38	18	
37	VML19CS104	Sneha Anil	8	8	8	8	32	18	
38	VML19CS067	Kavya Pushpan	10	9	8	10	37	18	
39	VML19CS061	Harold Prakash	9	10	10	9	38	18	
40	VML19CS080	Puliyile Kandi Muhammed Jassim	9	9	9	10	37	18	
41	VML19CS058	Farisa kp	9	9	9	9	36	18	
42	VML19CS103	Sidharth Suresh Nambiar	6	6	6	7	25	18	
43	LVML19CS117	Aromal Prakash K V	7	7	8	10	32	18	
44	VML19CS019	Alan Saji	8	8	8	8	32	18	

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13	VML19CS108	Sooraj Mohan	9	9	9	8	35	18	
14	VML19CS063	Janvin Joseph	9	10	10	9	38	18	
15	VML19CS096	Shijas P	8	10	10	9	37	18	
16	VML19CS089	Sanand Chandran	9	10	10	9	38	18	
17	VML19CS112	Theerth M	8	7	7	9	31	18	
18	VML19CS110	Sreevedh Hareesh	10	10	10	9	39	18	
19	VML19CS044	Aysha nahadha	10	9	10	9	38	18	
20	VML19CS021	Aleena Mathews	10	9	10	10	39	18	
21	VML19CS026	Anagha P P	10	5	5	5	25	18	
22	VML19CS050	Devika C	6	5	5	7	23	18	
23	VML19CS048	Deekshith	8	7	8	9	32	18	
24	VML19CS007	Adila Farha P K	8	8	9	10	35	18	
25	VML19CS101	Sidharth A S	9	9	8	9	35	18	
26	VML19CS055	Eaby Thomas C	8	7	8	8	31	18	
27	VML19CS083	Ranjul Arumadi	10	10	10	9	39	18	
28	VML19CS074	Nathasha K V	10	10	10	10	40	18	

45	VML19CS042	Athira Das	8	9	10	10	37	18	
46	LVML19CS118	Kiran P P	9	9	9	7	34	18	
47	LVML19CS116	Anurag A M	8	8	9	8	33	18	
48	VML19CS052	Diya P	9	10	10	10	39	18	
49	VML19CS086	Roby K S	8	8	7	7	30	18	
50	VML19CS114	Vismaya Vinoth Kumar	9	8	10	10	37	18	
51	VML19CS098	Shradha Sujith	10	8	8	8	34	18	
52	VML19CS106	Sona Jose	10	9	9	9	37	18	
53	VML19CS084	Rhea Renjith	10	8	8	8	34	18	
54	VML19CS046	Darsan Dinesh	7	10	10	9	36	18	
55	VML19CS024	Amalraj	10	9	9	10	38	18	
56	VML19CS012	Akshay jayachandran	9	9	10	9	37	18	
57	VML19CS040	Ashwin S Nambiar	8	8	8	9	33	18	
58	VML19CS030	Anjima Govindan	9	8	8	8	33	18	

Seminar Coordinators

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CSQ413 SEMINAR CSE B (2019-2023 BATCH)
PRESENTATION MARK - CHAIRMAN

Sl No	University Register Number	Student Name	Clarity of presentation (10)	Interactions (10)	Overall participation (10)	Quality of the slides (10)	TOTAL (60)	Report (20)
1	LVML19CS116	Anurag A M	8	9	8	8	33	18
2	LVML19CS117	Aromal Prakash K V	7	8	9	7	31	18
3	LVML19CS118	Kiran P P	7	9	5	6	27	18
4	VML19CS002	Abhijai K	6	6	8	7	27	18
5	VML19CS005	Achal Dev P	7	6	7	8	28	18
6	VML19CS007	Adila Farha P K	9	7	5	8	29	18
7	VML19CS008	Adithya T K	10	9	10	9	38	18
8	VML19CS010	Adwaid M	6	5	7	5	23	18
9	VML19CS012	Adwetha Falgunan	9	9	7	9	34	18
10	VML19CS012	Akshay jayachandran	8	7	7	8	30	18
11	VML19CS015	Akhil Kumar	7	7	7	8	29	18
12	VML19CS019	Alan Saji	8	8	7	6	29	18
13	VML19CS021	Aleena Mathews	9	9	7	9	34	18
14	VML19CS023	Alisha Mathews	9	7	7	8	31	18
15	VML19CS024	Amalraj	7	7	7	8	29	18
16	VML19CS026	Anagha P P	9	5	10	8	32	18
17	VML19CS028	Aneesha S	8	6	10	8	32	18
18	VML19CS030	Anjima Govindan	8	6	5	7	26	16
19	VML19CS031	Annapoorna K K	8	7	7	8	30	18
20	VML19CS035	Anupama K V	8	6	7	8	29	18
21	VML19CS037	Anusree Venu	9	8	5	9	31	17
22	VML19CS039	Arya Sajiv	8	8	5	8	29	16
23	VML19CS040	Ashwin S Nambiar	8	7	7	8	30	18
24	VML19CS042	Athira Das	7	7	7	6	27	18
25	VML19CS044	Aysha nahadha	9	7	5	8	29	18
26	VML19CS046	Darsan Dinesh	8	9	5	9	31	18
27	VML19CS048	Deekshith	8	6	5	6	25	18
28	VML19CS050	Devika C	8	5	7	8	28	18
29	VML19CS052	Diya P	9	7	8	9	33	18
30	VML19CS054	Don Mariya	8	6	7	7	28	18
31	VML19CS055	Eaby Thomas C	7	9	8	8	32	18
32	VML19CS058	Farisa kp	10	10	5	9	34	18
33	VML19CS061	Harold Prakash	8	9	7	9	33	18
34	VML19CS063	Janvin Joscph	7	6	7	8	28	18
35	VML19CS065	Jithin Jose	8	7	10	6	31	18
36	VML19CS067	Kavya Pushpan	9	8	7	9	33	18
37	VML19CS069	Kiran Valsalan Nair	9	8	8	9	34	17
38	VML19CS071	Mary Joy	8	8	5	9	30	18
39	VML19CS074	Nathasha K V	9	9	7	9	34	18
40	VML19CS075	Nihal O	8	9	5	9	31	18
41	VML19CS080	Puliyile Kandi Muhammed Jassim	7	6	8	7	28	18
42	VML19CS081	Gayathri p.v	9	7	7	9	32	18
43	VML19CS083	Ranjul Arumadi	10	9	9	9	37	18
44	VML19CS084	Rhea Renjith	7	7	5	7	26	16
45	VML19CS086	Roby K S	7	7	9	7	30	16
46	VML19CS089	Sanand Chandran	8	8	7	8	31	18

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47	VML19CS091	Sanjuktha Sanjay	8	7	8	8	31	18
48	VML19CS094	Sharanya Ullas	7	5	5	6	23	18
49	VML19CS096	Shijas P	8	8	9	8	33	18
50	VML19CS098	Shradha Sujith	9	6	7	9	31	18
51	VML19CS101	Sidharth A S	8	8	5	9	30	18
52	VML19CS103	Sidharth Suresh Nambiar	7	7	7	9	30	18
53	VML19CS104	Sneha Anil	9	9	5	9	32	18
54	VML19CS106	Sona Jose	9	8	5	9	31	18
55	VML19CS108	Sooraj Mohan	8	8	7	8	31	18
56	VML19CS110	Sreevedh Hareesh	9	9	5	9	32	18
57	VML19CS112	Theerth M	7	7	7	7	28	13
58	VML19CS114	Vismaya Vinoth Kumar	8	8	7	8	31	18

Seminar Coordinators

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSQ413 SEMINAR CSE B (2019-2023 BATCH)

PRESENTATION MARK- SEMINAR COORDINATOR

Sl No	University Register Number	Student Name	Clarity of presentation (10)	Interactions (10)	Overall participation (10)	Quality of the slides (10)	TOTAL (60)	Report (20)
1	LVML19CS116	Anurag A M	8	8	5	9	30	18
2	LVML19CS117	Aromal Prakash K V	7	6	9	8	30	18
3	LVML19CS118	Kiran P P	8	9	5	8	30	18
4	VML19CS002	Abhijai K	6	6	8	7	27	18
5	VML19CS005	Achal Dev P	9	8	7	8	32	18
6	VML19CS007	Adila Farha P K	8	8	5	8	29	18
7	VML19CS008	Adithya T K	10	9	10	10	39	18
8	VML19CS010	Adwaid M	6	5	7	8	26	18
9	VML19CS012	Adwetha Falgunan	9	8	7	8	32	18
10	VML19CS012	Akshay jayachandran	9	9	7	8	33	18
11	VML19CS015	Akhil Kumar	8	8	7	8	31	18
12	VML19CS019	Alan Saji	7	7	7	7	28	18
13	VML19CS021	Aleena Mathews	9	8	7	8	32	18
14	VML19CS023	Alisha Mathews	8	7	7	8	30	18
15	VML19CS024	Amalraj	8	8	7	9	32	18
16	VML19CS026	Anagha P P	8	6	10	7	31	18
17	VML19CS028	Aneesha S	8	6	10	8	32	18
18	VML19CS030	Anjima Govindan	8	7	5	8	28	16
19	VML19CS031	Annapoorna K K	8	7	7	8	30	18
20	VML19CS035	Anupama K V	8	6	7	8	29	18
21	VML19CS037	Anusree Venu	9	7	5	8	29	17
22	VML19CS039	Arya Sajiv	9	7	5	8	29	16
23	VML19CS040	Ashwin S Nambiar	7	8	7	9	31	18
24	VML19CS042	Athira Das	7	8	7	8	30	18
25	VML19CS044	Aysha nahadha	9	8	5	9	31	18
26	VML19CS046	Darsan Dinesh	9	8	5	9	31	18
27	VML19CS048	Deekshith	8	7	5	7	27	18
28	VML19CS050	Devika C	7	5	7	7	26	18
29	VML19CS052	Diya P	9	8	8	9	34	18
30	VML19CS054	Don Mariya	7	7	7	8	29	18
31	VML19CS055	Eaby Thomas C	7	7	8	8	30	18
32	VML19CS058	Farisa kp	9	8	5	8	30	18
33	VML19CS061	Harold Prakash	8	7	7	8	30	18
34	VML19CS063	Janvin Joseph	10	10	7	9	36	18
35	VML19CS065	Jithin Jose	9	8	10	8	35	18
36	VML19CS067	Kavya Pushpan	9	8	7	9	33	18
37	VML19CS069	Kiran Valsalan Nair	10	9	8	9	36	17
38	VML19CS071	Mary Joy	9	9	5	9	32	18
39	VML19CS074	Nathasha K V	9	9	7	9	34	18
40	VML19CS075	Nihal O	8	8	5	9	30	18
41	VML19CS080	Puliyile Kandi Muhammed Jassim	7	7	8	7	29	18
42	VML19CS081	Gayathri p.v	9	9	7	9	34	18
43	VML19CS083	Ranjul Arumadi	10	9	9	10	38	18
44	VML19CS084	Rhea Renjith	7	7	5	8	27	16

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45	VML19CS086	Roby K S	8	6	9	9	32	16
46	VML19CS089	Sanand Chandran	7	8	7	8	30	18
47	VML19CS091	Sanjuktha Sanjay	7	8	8	8	31	18
48	VML19CS094	Sharanya Ullas	8	7	5	8	28	18
49	VML19CS096	Shijas P	8	8	9	8	33	18
50	VML19CS098	Shradha Sujith	8	6	7	8	29	18
51	VML19CS101	Sidharth A S	9	7	5	8	29	18
52	VML19CS103	Sidharth Suresh Nambiar	6	5	7	6	24	18
53	VML19CS104	Sncha Anil	9	9	5	9	32	18
54	VML19CS106	Sona Jose	8	7	5	9	29	18
55	VML19CS108	Sooraj Mohan	8	7	7	8	30	18
56	VML19CS110	Sreevedh Hareesh	10	9	5	10	34	18
57	VML19CS112	Theerth M	8	7	7	8	30	13
58	VML19CS114	Vismaya Vinoth Kumar	8	7	7	9	31	18

Seminar Coordinators

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CSQ413 SEMINAR (2019-2023 BATCH) - CSE B
SEMINAR GUIDE EVALUATION

Sl No	University Register Number	Student Name	Background Knowledge (10)	Relevance of the paper/topic selected (10)	TOTAL (20)	Signature
1	VML19CS069	Kiran Valsalan Nair	9	9	18	
2	VML19CS081	Gayathri p.v	9	9	18	
3	VML19CS091	Sanjuktha Sanjay	9	9	18	
4	VML19CS054	Don Mariya	8	10	18	
5	VML19CS065	Jithin Jose	9	10	19	
6	VML19CS071	Mary Joy	9	8	17	
7	VML19CS028	Aneesha S	9	10	19	
8	VML19CS015	Akhil Kumar	9	9	18	
9	VML19CS010	Adwaid M	9	9	18	
10	VML19CS037	Anusree Venu	9	10	19	
11	VML19CS035	Anupama K V	9	10	19	
12	VML19CS012	Adwetha Falgunan	9	9	18	
13	VML19CS108	Sooraj Mohan	9	10	19	
14	VML19CS063	Janvin Joseph	9	9	18	
15	VML19CS096	Shijas P	9	9	18	
16	VML19CS089	Sanand Chandran	9	9	18	
17	VML19CS112	Theerth M	7	10	17	
18	VML19CS110	Sreevedh Hareesh	10	10	20	
19	VML19CS044	Aysha nahadha	9	9	18	
20	VML19CS021	Aleena Mathews	10	10	20	
21	VML19CS026	Anagha P P	9	10	19	
22	VML19CS050	Devika C	8	8	16	
23	VML19CS048	Deekshith	9	9	18	
24	VML19CS007	Adila Farha P K	9	10	19	
25	VML19CS101	Sidharth A S	9	10	19	
26	VML19CS055	Eaby Thomas C	10	10	20	
27	VML19CS083	Ranjul Arumadi	10	10	20	
28	VML19CS074	Nathasha K V	10	10	20	
29	VML19CS094	Sharanya Ullas	8	9	17	
30	VML19CS075	Nihal O	9	9	18	
31	VML19CS023	Alisha Mathews	8	8	16	
32	VML19CS031	Annapoorna K K	8	10	18	
33	VML19CS005	Achal Dev P	9	9	18	

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34	VML19CS039	Arya Sajiv	9	9	18	
35	VML19CS002	Abhijai K	9	9	18	
36	VML19CS008	Adithya T K	10	10	20	
37	VML19CS104	Sneha Anil	8	9	17	
38	VML19CS067	Kavya Pushpan	10	9	19	
39	VML19CS061	Harold Prakash	9	9	18	
40	VML19CS080	Puliyile Kandi Muhammed Jassim	9	10	19	
41	VML19CS058	Farisa kp	9	10	19	
42	VML19CS103	Sidharth Suresh Nambiar	9	10	19	
43	LVML19CS117	Aromal Prakash K V	8	10	18	
44	VML19CS019	Alan Saji	9	9	18	
45	VML19CS042	Athira Das	8	10	18	
46	LVML19CS118	Kiran P P	10	10	20	
47	LVML19CS116	Anurag A M	8	10	18	
48	VML19CS052	Diya P	9	9	18	
49	VML19CS086	Roby K S	9	9	18	
50	VML19CS114	Vismaya Vinoth Kumar	9	9	18	
51	VML19CS098	Shradha Sujith	9	10	19	
52	VML19CS106	Sona Jose	9	8	17	
53	VML19CS084	Rhea Renjith	9	9	18	
54	VML19CS046	Darsan Dinesh	9	9	18	
55	VML19CS024	Amalraj	10	10	20	
56	VML19CS012	Akshay jayachandran	9	9	18	
57	VML19CS040	Ashwin S Nambiar	9	9	18	
58	VML19CS030	Anjima Govindan	9	9	18	

Seminar Co-ordinator

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CSQ413 SEMINAR CSE B (2019-2023 BATCH)
CONSOLIDATED MARK

Dept-Semester-Scheme-Section-BatchNumber= CS-7-Scheme 2019-B-1

USN	Name	Experiment1				
		Marks awarded by Guide (20)	Final Evaluation (20)	Presentation (40)	Report (20)	Total (100)
LVML19CS116	Anurag A M	18	18	32	18	86
LVML19CS117	Aromal Prakash K V	18	16	31	18	83
LVML19CS118	Kiran P P	20	17	30	18	85
VML19CS002	Abhijai K	18	15	28	18	79
VML19CS005	Achal Dev P	18	17	33	18	86
VML19CS007	Adila Farha P K	19	18	31	18	86
VML19CS008	Adithya T K	20	19	38	18	95
VML19CS010	Adwaid Sahadevan M	18	17	25	18	78
VML19CS012	Adwetha Falgunan	18	14	35	18	85
VML19CS015	Akhil Kumar K	18	18	33	18	87
VML19CS017	Akshay Jayachandran V V	18	17	32	18	85
VML19CS019	Alan Saji	18	13	30	18	79
VML19CS021	Aleena Mathews	20	19	35	18	92
VML19CS023	Alisha Mathew	16	17	29	18	80
VML19CS024	Amalraj P	20	16	33	18	87
VML19CS026	Anagha P P	19	17	29	18	83
VML19CS028	Aneesha S	19	16	33	18	86
VML19CS030	Anjima Govindan	18	15	29	16	78
VML19CS031	Annapoorna K K	18	18	32	18	86
ML19CS035	Anupama K V	19	17	32	18	86
ML19CS037	Anusree Venu	19	17	33	18	87
ML19CS039	Arya Sajiv	18	16	32	16	82
ML19CS040	Ashwin S Nambiar	18	18	31	18	85
ML19CS042	Athira Das	18	18	31	18	85
ML19CS044	Aysha Nahadha	18	16	33	18	85
ML19CS046	Darsan Dinesh	18	18	33	18	87
ML19CS048	Deekshith K K	18	15	28	18	79
ML19CS050	Devika C	16	17	26	18	77
ML19CS052	Diya P	18	18	35	18	89

minar Coordinators

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CSQ413 SEMINAR CSE B (2019-2023 BATCH)
CONSOLIDATED MARK

Dept-Semester-Scheme-Section-BatchNumber= CS-7-Scheme 2019-B-2

USN	Name	Experiment1				
		Marks awarded by Guide (20)	Final Evaluation (20)	Presentation (40)	Report (20)	Total (100)
VML19CS054	Don Mariya	18	17	30	18	83
VML19CS055	Eaby Thomas C	20	18	31	18	87
VML19CS058	Farisa K P	19	17	33	18	87
VML19CS061	Harold Prakash	18	16	34	18	86
VML19CS063	Janvin Joseph	18	17	34	18	87
VML19CS065	Jithin Jose	19	17	34	18	88
VML19CS067	Kavya Pushpan	19	18	34	18	89
VML19CS069	Kiran Valsalan Nair	18	16	36	17	87
VML19CS071	Mary Joy	17	18	32	18	85
VML19CS074	Nathasha K V	20	19	36	18	93
VML19CS075	Nihal O	18	18	32	18	86
VML19CS080	Puliyile Kandi Muhammed Jassim	19	15	31	18	83
VML19CS081	PV Gayathri	18	17	34	18	87
VML19CS083	Ranjul Arumadi	20	19	38	18	95
VML19CS084	Rhea Renjith	18	17	29	16	80
VML19CS086	Roby K S	18	18	31	16	83
VML19CS089	Sanand Chandran	18	18	33	18	87
VML19CS091	Sanjuktha Sanjay	18	18	33	18	87
VML19CS094	Sharanya Ullas	17	17	27	18	79
VML19CS096	Shijas P	18	17	34	18	87
VML19CS098	Shradha Sujith	19	17	31	18	85
VML19CS101	Sidharth A S	19	18	31	18	86
VML19CS103	Sidharth Suresh Nambiar	19	17	26	18	80
VML19CS104	Sneha Anil	17	17	32	18	84
VML19CS106	Sona Jose	17	17	32	18	84
VML19CS108	Sooraj Mohan	19	17	32	18	86
VML19CS110	Sreevedh Hareesh	20	17	35	18	90
VML19CS112	Theerth M	17	11	30	13	71
VML19CS114	Vismaya Vinoth Kumar	18	16	33	18	85

Seminar Coordinators

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UTER SCIENCE AND ENGINEERING

CSQ413 SEMINAR CSE B (2019-2023 BATCH)

CO1 **Identify academic documents from the literature which are related to her/his areas of interest (Cognitive knowledge level: Apply).**

Level 1= 50 % students have more than 50% mark

Level 2 = 60 % students have more than 50% mark

Level 3= 70 % students have more than 50% mark

REG NO	Name	CO1		
		seminar guide mark		
		seminar diary (10)	Background Knowledge (10)	Relevance of the paper/topic selected (10)
LVML19CS116	Anurag A M	8	8	10
LVML19CS117	Aromal Prakash K V	7	8	10
LVML19CS118	Kiran P P	8	10	10
VML19CS002	Abhijai K	5	9	9
VML19CS005	Achal Dev P	7	9	9
VML19CS007	Adila Farha P K	9	9	10
VML19CS008	Adithya T K	9	10	10
VML19CS010	Adwaid M	7	9	9
VML19CS012	Adwetha Falgunan	7	9	9
VML19CS012	Akshay jayachandran	8	9	9
VML19CS015	Akhil Kumar	7	9	9
VML19CS019	Alan Saji	3	9	9
VML19CS021	Aleena Mathews	9	10	10
VML19CS023	Alisha Mathews	8	8	8
VML19CS024	Amalraj	8	10	10
VML19CS026	Anagha P P	7	9	10
VML19CS028	Aneesha S	7	9	10
VML19CS030	Anjima Govindan	6	9	9
VML19CS031	Annapoorna K K	8	8	10

VML19CS035	Anupama K V	7	9	10
VML19CS037	Anusree Venu	7	9	10
VML19CS039	Arya Sajiv	6	9	9
VML19CS040	Ashwin S Nambiar	8	9	9
VML19CS042	Athira Das	8	8	10
VML19CS044	Aysha nahadha	8	9	9
VML19CS046	Darsan Dinesh	8	9	9
VML19CS048	Deekshith	7	9	9
VML19CS050	Devika C	7	8	8
VML19CS052	Diya P	9	9	9
VML19CS054	Don Mariya	8	8	10
VML19CS055	Eaby Thomas C	8	10	10
VML19CS058	Farisa kp	8	9	10
VML19CS061	Harold Prakash	7	9	9
VML19CS063	Janvin Joseph	8	9	9
VML19CS065	Jithin Jose	7	9	10
VML19CS067	Kavya Pushpan	8	10	9
VML19CS069	Kiran Valsalan Nair	7	9	9
VML19CS071	Mary Joy	8	9	8
VML19CS074	Nathasha K V	9	10	10
VML19CS075	Nihal O	9	9	9
VML19CS080	Puliyile Kandi Muhammed Jassim	7	9	10
VML19CS081	Gayathri p.v	8	9	9
VML19CS083	Ranjul Arumadi	9	10	10
VML19CS084	Rhea Renjith	8	9	9
VML19CS086	Roby K S	8	9	9
VML19CS089	Sanand Chandran	8	9	9
VML19CS091	Sanjuktha Sanjay	9	9	9
VML19CS094	Sharanya Ullas	7	8	9
VML19CS096	Shijas P	7	9	9
VML19CS098	Shradha Sujith	8	9	10

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co1

VML19CS101	Sidharth A S	8	9	10
VML19CS103	Sidharth Suresh Nambiar	8	9	10
VML19CS104	Sneha Anil	7	8	9
VML19CS106	Sona Jose	8	9	8
VML19CS108	Sooraj Mohan	8	9	10
VML19CS110	Sreevedh Hareesh	9	10	10
VML19CS112	Theerth M	5	7	10
VML19CS114	Vismaya Vinoth Kumar	8	9	9
Total No. of students		58	58	58
Target (50% Marks)		5	5	5
Total No. of students who have achieved the target		57	58	58
Attainment percentage		98.28	100	100
Attainment Level		3	3	3
Total Attainment of Each section		3		

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CSQ 413 SEMINAR

APPROVAL FORM

Name: ANAGHA · P · P

Register No.: VML19CS026 Semester & Batch : S7 CSE B

SEMINAR Title: Identification of COVID-19 using portable device by analysing Chest X-RAY images.

Year of Publication:

Whether the article is SCI/SCIE/Scopus indexed : ~~Yes~~ / No

If No, Whether the article is present in the UGC Care list: Yes/No

Brief Description: (DO NOT EXCEED SPACE PROVIDED BELOW)

Recent COVID-19 disease is a respiratory infection caused by corona virus. COVID-19 mainly affect the pulmonary tissue that's why chest X-RAY plays a major role in screening, detection & monitoring the affected person. In this work they used portable device to get the chest X-RAY image. There are some abnormalities identified in the chest X-RAY of COVID-19 affected person. There are some pulmonary diseases that has similar characteristics of COVID-19 that was the challenge faced by the team. They use computational method and deep learning concepts to classify the chest XRAY and that's how the identify the COVID cases.

Signature of Student

Topic Approval Date: 12-10-2022

Approved by : Beeraji Narayanan

Department CSE

Signature

4/11/2022

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CSQ 413 SEMINAR

APPROVAL FORM

Name : Adwitha Jalajavan

Register No. : VML19CS012 **Semester & Batch :** S7 CSE B

SEMINAR Title: Facial Expression Recognition using Pose-Guided Face alignment & Discriminative features Based on Deep Learning

Year of Publication: 07.05.2021

Whether the article is SCI/SCIE/Scopus indexed : Yes / No

If No, Whether the article is present in the UGC Care list: Yes/No

Brief Description: (DO NOT EXCEED SPACE PROVIDED BELOW)

A crucial component of robotic vision is face expression recognition which enables machines to comprehend human emotions.
Interference from the real world, such as light changes face occlusion and pose variation reduces the recognition rate of the model.
To solve the above mentioned issues this paper proposes a novel deep model to improve the classification accuracy of facial expressions.

Signature of Student

Topic Approval Date: 8/12/22
Approved by : Dr. Jeethu V. Devasia
Department CSE
Signature

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Principal.VJEC

Department of Computer Science and Engineering
Vimal Jyothi Engineering College
Chemperi

Drug Traceability in Health Supply Chain using Blockchain

Alena Mathews
VML19CS021

GUIDE:
Ms.Rahna C M

CONTENTS

ABSTRACT

- A major challenge across the healthcare sector,is ensuring the provenance of medical goods to confirm their authenticity.
- In developing markets the counterfeit prescription medicines cause tens of thousands of deaths annually.
- This system aim to build a end-to-end product tracking system across the pharmaceutical supply chain for ensuring product safety and eliminating counterfeits.

INTRODUCTION

- Healthcare supply chain is a complex network of several independent entities.
- Tracking supplies through the centaralized network is non-trivial.
- Blockchain in healthcare improves overall security of patients moreover resolves the issues of drugs supply chain traceability .
- This System present an Ethereum blockchain-based approach leveraging smart contracts and decentralized off-chain storage for efficient product traceability in the healthcare supply chain .

JECTIVE

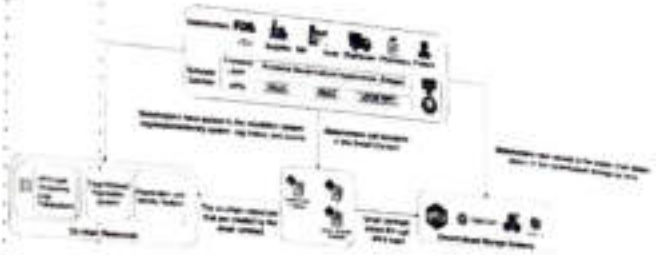
- To prevent counterfeit drugs and provide a secure SCM system to the end-users.
- To eliminates the need for intermediaries and provides a secure, immutable history of transactions to all stakeholders.
- To keep track of all the transactions for ensuring traceability of the history of the medicines.

METHODOLOGY

- In this system Etherum based Blockchain platform is used for building the decentalized app.
- Blockchain Based stored system-(IPFS) is proposed for storing the record securely.
- In supply chain, smart contracts are particularly useful for releasing payment, it is a mutual agreement between two or more parties that is automatable.

ARCHITECTURE

- The high-level System architecture for the proposed drug traceability system together with the stakeholder and their interactions with the smart contract.



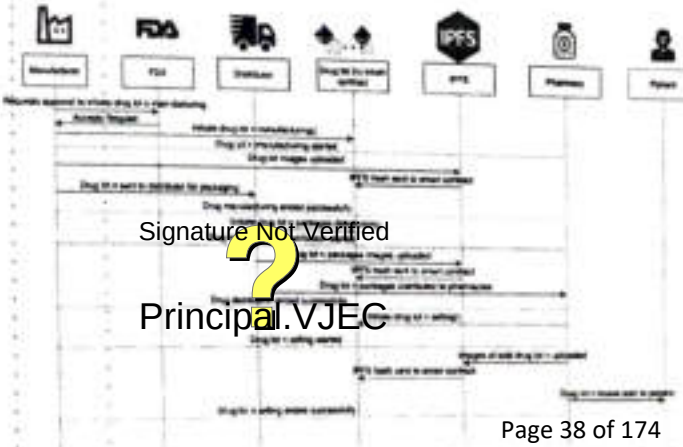
ARCHITECTURE

- Stakeholders include regulatory agencies. These stakeholders act as participants in the smart contract they are given access to track the transaction.
- Decentralized Storage System provides a low-cost off-chain storage to store transactions data.

- Ethereum Smart Contract is used to handle the deployment of the supply chain.
- On-chain Resources are used to store the logs and events that are created by the smart contract allowing track and trace

WORKING

- The proposed system and can be loosely divided into three phases
  - Manufacturing
  - Distribution
  - Sale/Consumption



- Manufacturing: In the first step manufactur send a request for approval to the FDA.Once FDA approved then the manufacturer initiates the process.
- The manufactur upload the information in IPFS and IPFS send a hash to the smart contract so that the images can be accessed later by authorized participants.

- Distribution: In the next step the distributor will pack the drug Lot.
- The image of the package will be uploaded to the IPFS which will send a hash to the smart contract.
- Once this step is completed, the drug Lot packages will be delivered to pharmacies, and this ends the distribution phase.

- Sale/Consumption: The last step is related to the interaction between the pharmacy and the patients.
- Then, an image of the sold drug package will be uploaded to the IPFS, and a hash will be sent by the IPFS to the smart contract.
- The drug Lot box will be sold to the patient, and this concludes the drug Lot selling phase.

- The Traceability of proposed System.

- A unique Ethereum address is generated for every drug Lot .
- Ethereum address is mapped to QRcode using Ethereum QR code generator.
- First step is scanning the QR code that is attached to the drug by using a DApp.
- To map the QR code to its corresponding Ethereum address, the DApp has to interact with the Ethereum node.
- Each node in the ethereum network will have a replica of the ledger that is immutable.

- The requested events and information about change of ownership will be fetched from the Ethereum network and they will be synced with the Ethereum gateway (Infura).
- And once the syncing is done, they will be transferred to the DApp and displayed to the user.
- The user will be able to verify the [illegible]n of the drug Lot based on the smart contract Ethereum address and the batch name.

- This system build a Blockchain-Based Approach for Drug Traceability in Healthcare Supply Chain solution for the pharmaceutical supply chain to track and trace drugs in a decentralized manner.
- This system help in eliminating the counterfeit drugs reaching end-users.
- The role of blockchain supply chain growing in popularity due to complexity and lack of transperancy in todays supply chain.

[1] Shortage of Personal Protective Equipment Endangering Health Workers Worldwide. Accessed: Jun. 3, 2020. [Online]. Available: https://tinyurl.com/v5qauvp

[2] W. G. Chambliss, W. A. Carroll, D. Kennedy, D. Levine, M. A. Moné, L. D. Ried, M. Shepherd, and M. Yelvigi, "Role of the pharmacist in preventing distribution of counterfeit medications," J. Amer. Pharmacists Assoc., vol. 52, no. 2, pp. 195–199, Mar. 2012.

[3] Z. RJ, "Roles for pharmacy in combating counterfeit drugs," J. Amer. Pharmacists Assoc., vol. 48, pp. e71–e88, Jul. 2008.

[5] T. Adhanom. (2017). Health is a Fundamental Human Right. Accessed: May 26, 2020. Available: https://www.who.int/mediacentre/news/statements/fundamental-human-right/en/

[6] Growing Threat From Counterfeit Medicines, World Health Organization, Geneva, Switzerland, 2010.

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CSD416 PROJECT PHASE II

VJ/CSE/SP/2023/3 **19.01.2023**

APPOINTMENT ORDER

Dear Sir/Madam,

Sub: - VIII[th] Semester B.Tech – PROJECT PHASE II – CSD416 – JANUARY 2022– Guide List– CSE A.

I have great pleasure to inform you that you are appointed as Supervisor for **CSD 416- PROJECT PHASE II**. Kindly accept the appointment.

Details are given below:

Sl. No.	University registrar number	Name	Group No.	Area	Guide
1	VML19CS062	Hrithwik P V	1	Machine Learning	Ms. Rahna C. M.
2	VML19CS013	Aiswar K			
3	VML19CS049	Dennis Benny			
4	VML19CS064	Jestin Raju			
5	VML19CS009	Aditya Tejus	2	Machine Learning	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju			
7	VML19CS045	Berly Xavier			
8	VML19CS060	Haripriya M	3	Machine Learning	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K			

Ph: 0460 2212240, 2213399 E-mail: office@vjec.ac.in Website: www.vjec.ac.in

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10	VML19CS016	Akshay chandra			
11	VML19CS011	Adwaith Krishna			
12	VML19CS032	Ann Rose Issac	4	Machine Learning	Mrs. Dinsha P K
13	VML19CS068	Keerthana K			
14	VML19CS079	V Pournami			
15	VML19CS093	Shani Thomas			
16	VML19CS092	Shahan Abdulla K	5	Machine Learning	Ms. Najira Salam
17	VML19CS070	Manu Mathew Jiss			
18	VML19CS076	Nihal V George			
19	VML19CS057	Faez Muhammed M			
20	VML19CS001	Aalap Ragesh	6	Augmented reality	Mr Rijin I K
21	VML19CS053	Diya S			
22	VML19CS022	Alenteena Sebastian			
23	VML19CS107	Sona. P			
24	VML19CS004	Abhincy Thomas	7	Machine Learning	Ms.Ujwala Vijayan
	VML19CS059	Farzeen Rahman			
25	VML19CS047	Darshitha K			
26	VML19CS099	Shythya P V			
27	VML19CS066	Joshua Mathew	8	Cloud Computing	Ms. Diya Rameshan
28	VML19CS020	Albin Thomas			

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29	VML19CS105	Snigdha Sathyanathan			
30	VML19CS033	Antony Thomas			
31	VML19CS014	Akash Ajith	9	Machine Learning	Ms. Rajitha K V
32	VML19CS090	Sangeeth K			
33	VML19CS082	Sharon Rose Babu			
34	VML19CS100	Sidharthan AK			
35	VML19CS113	Uvais Hassan	10	Machine Learning	Mrs. Divya B
36	VML19CS056	EP Gopika			
37	VML19CS006	Adheena KM			
38	VML19CS051	Dheeraj K			
39	VML19CS027	Anamika Prakash A	11	Machine Learning	Mr.Abhiram P
40	VML19CS073	Muhsina Musthafa			
41	VML19CS025	Ambili Jacob			
42	VML19CS087	Rose Mariya Joy			
43	VML19CS036	Anurag C Ashok	12	Machine Learning	Ms.Divya K
44	VML19CS003	Abhinav c			
45	VML19CS018	Akshay sasi			
46	VML19CS082	Rahnas K T			
47	VML19CS038	Arjun KV	13	Machine Learning	Ms. Nayana Suresh

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48	VML19CS043	Augustin Robins			
49	VML19CS102	Sidharth K V			
50	VML19CS041	Aswin Augustine			
51	VML19CS109	Sreehari Jayesh (L)	14	Machine Learning	Mrs.Sreeraji Narayanan
52	VML19CS072	Mohammed Razi Riyaz			
53	VML19CS077	Nikhil Remesh			
54	VML19CS088	Sahad Abdul Rahman			
55	VML19CS029	Anjana Suresh	15	Information Security	Ms. Sreelakshmi M
56	VML19CS034	Anumitha S Pradiu			
57	VML19CS085	Riya Rose			
58	VML19CS115	V R Arya			

EVALUATION RUBRICS for PROJECT Phase II: Evaluation by the Guide

No.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
2-p	Project Scheduling & Distribution of Work among Team members	5	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

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						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 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-q	Literature survey	4	The literature overview presented does not at all cover the relevant parts of the research field. The literature presented is outdated. The relevance and quality of the literature researched is questionable (mainly websites and hardly any	The literature overview presented does cover the relevant parts of the research field. The literature presented is partially outdated. The relevance and quality of the literature researched is acceptable (still shows many websites and only a limited	The literature overview presented does cover the relevant parts of the research field very well. The literature presented is up to date. The relevance and quality of the literature researched is very good: a good mix of relevant and up to date text books,	The literature overview presented covers the relevant parts of the research field very well. The literature presented is of excellent choice and up to date. The relevance and quality of the literature researched is excellent: and representativ e mix of relevant refereed literature. The candidate has

			refereed literature, text books or technical reports).	amount of refereed papers and journals).	refereed conference papers and journal articles.	been able to grasp the literature in the field of research to the fullest. Both the historical perspective as well as the most recent developments have been covered with refereed literature (text books, conference papers and journal articles)
			(0 – 1 Marks)	(2 Marks)	(3 Marks)	(4 Marks)
2-r	Student's Diary/ Daily Log	7	Clearly unprepared and nearly always absent	Rarely prepared and attends some classes, Low level of content knowledge	Usually prepared and attends most classes,Average content knowledge	Always prepared and attends nearly every class in work, Excellent content knowledge
			(0 – 1 Marks)	(2 – 3 Marks)	(4-6 Marks)	(7 Marks)
2-s	Individual Contribution	9	Irregular in attendance and inconsistent in work, Lacks sufficient	Attendance is somewhat irregular or occasionally late., Completes assigned	Regular and punctual attendance, rarely absent or late. Consistently completes	Exemplary attendance, always punctual and rarely absent. Consistently exceeds

			knowledge	tasks with some inconsistency or occasional delays., Demonstrates basic knowledge but lacks depth or proficiency., Puts in moderate effort but may require assistance or guidance.	assigned tasks on time and meets deadlines. Possesses solid knowledge and demonstrates competency in the role. Shows initiative to expand knowledge and skills independently.	expectations by completing tasks ahead of schedule. Possesses extensive knowledge and demonstrates expertise in the role. Proactively seeks opportunities to enhance knowledge and skills. Actively shares knowledge with others and contributes to team growth.
			(0 –2 Marks)	(3 –5 Marks)	(6-8 Marks)	(9 Marks)

2-t	Completion of the project	5	None of the expected outcomes are achieved yet. The team is unable to derive any inferences on the failures/ issues observed. Any kind o f observations or studies are not made.	Only a few of the expected outcomes are achieved. A few inferences are made on the observed failures/issu es. No further work suggested.	Many of the expected outcomes are achieved. Many observations and inferences are made, and attempts to identify the issues are done. Some suggestions are made for further work.	Most of the stated outcomes are met. Extensive studies are done and inferences drawn. Most of the failures are addressed and solutions suggested. Clear and valid suggestions made for further work.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

Regards,

Dr. Jeethu V Devasia

HoD CSE

Copy to

1. All faculty in CSE Department (through mail)

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VJ/CSE/SP/2023/01 19.01.2023

OFFICE ORDER

Dear Sir/Madam,

Sub: VIII Sem. B. Tech Degree CSD416 PROJECT PHASE II ASSESSMENT BOARD CSE A (2019-23 Batch)

The following Assessment board is hereby constituted for the evaluation of Eight semester B.Tech Degree CSD 416 Project Phase II. Kindly make it convenient to conduct evaluation of the Project Phase II as per the schedule. Expecting your cooperation.

Assessment Board details for Project Phase II are given below:

Members:

1. Dr. Jeethu V Devasia (Senior faculty member.)
2. Mr. Rijin IK, (Project Coordinator, AP, CSE)
3. Project guide.

Principal.VJEC

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Ph: 0460 2212240, 2213399 E-mail: office@vjec.ac.in Website: www.vjec.ac.in

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EVALUATION RUBRICS for PROJECT Phase II: Interim Evaluation-1

No.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
2-a	Novelty of idea, and Implementation scope [CO5] [Group Evaluation	5	The project is not addressing any useful requirement. The idea is evolved into a non-implementable one. The work presented so far is lacking any amount of original work by the team	Some of the aspects of the proposed idea can be implemented. There is still lack of originality in the work done so far by the team. The project is a regularly done theme/topic without any freshness in terms of specifications, features, and/or	Good evidence of an implementable project. There is some evidence for the originality of the work done by the team . There is fresh specifications/ features/improvements suggested by the team. The team is doing a design from fundamental principles, and	The project has evolved into incorporating an outstandingly novel idea. Original work which is not yet reported anywhere else. Evidence for ingenious way of innovation which is also Implementable. Could be a patentable / publishable

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				improvements.	there is some independent learning and engineering ingenuity	work.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-b	Effectiveness of task distribution among team members. [CO3] [Group Evaluation]	5	No task distribution of any kind. Members are still having no clue on what to do.	Task allocation done, but not effectively, some members do not have any idea of the tasks assigned. Some of the tasks were identified but not followed individually well.	Good evidence of task allocation being done, supported by project journal entries, identification of tasks through discussion etc. However, the task distribution seems to be	Excellent display of task identification and distribution backed by documentary evidence of team brainstorming, and project journal entries. All members are allocated tasks

					skewed, and depends a few members heavily than others. Mostly the tasks are being followed by the individual members.	according to their capabilities, and as much as possible in an equal manner. The individual members are following the tasks in an excellent manner.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-c	Adherence to project schedule. [CO4] [Group Evaluation]	5	Little or no evidence of continued planning or scheduling of the project. The students did not	There is some improvement in the primary plan prepared during phase I. There were some ideas on the materials	Good evidence of planning done and being followed up to a good extent after phase I. Materials were listed and	Excellent evidence of enterprising and extensive project planning and follow-up since phase I.

			stick to the plan what they were going to build nor plan on what materials / resources to use in the project. The students do not have any idea on the budget required even after the end of phase - I. No project journal kept or the journal.	/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 useful details on the project.	thought out, but the plan wasn't followed completely. Schedules were prepared, but not detailed, and needs improvement. Project journal is presented but it is neither complete nor updated regularly	Continued use of project management/version control tool to track the project. Material procurement if applicable is progressing well. Tasks are updated and incorporated in the schedule. A well-kept project journal showed evidence for all the above, in addition to the interaction with the project guide.

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			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-d		5	There are no interim results to show.	The team showed some interim results, but they are not complete / consistent to the current stage, Some corrections are needed.	The interim results showed were good and mostly consistent/correct with respect to the current stage. There is room for improvement.	There were significant interim results presented which clearly shows the progress.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-e		5	Very poor presentation and there is no interim results. The student has no idea about the	Presentation is average, and the student has only a feeble idea about the team work.	Good presentation. Student has good idea about the team's project. The	Exceptionally good presentation. Student has excellent grasp of the project.

			project proposal.		overall presentation quality is good	The quality of presentation is outstanding.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

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ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
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NAAC ACCREDITED

EVALUATION RUBRICS for PROJECT Phase II: Interim Evaluation-2

Sl. b.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
2-f	Application of engineering knowledge [CO1] [Individual Assessment]	10	The student does not show any evidence of applying engineering knowledge on the design and the methodology adopted. The student's contribution in application of engineering knowledge in the project is poor.	The student appears to apply some basic knowledge, but not able to show the design procedure and the methodologies adopted in a comprehensive manner.	The student is able to show some evidence of application of engineering knowledge in the design and development of the project to good extent.	Excellent knowledge in design procedure and its adaptation. The student is able to apply knowledge from engineering domains to the problem and develop solutions.

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			(0 – 3 Marks)	(4 – 6 Marks)	(7-9 Marks)	(10 Marks)
2-g	Involvement of individual members [CO3] [Individual Assessment]	5	No evidence of any Individual participation in the project work.	There is evidence for some amount of individual contribution, but is limited to some of the superficial tasks	The individual contribution is evident. The student has good amount of involvement in core activities of the project.	Evidence available for the student acting as the core technical lead and has excellent contribution to the project.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

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2-h	***Results and inferences upon execution [CO5] [Group Assessment]***	*5*	None of the expected outcomes are achieved yet. The team is unable to derive any inferences on the failures/ issues observed. Any kind o f observations or studies are not made.	Only a few of the expected outcomes are achieved. A few inferences are made on the observed failures/issues. No further work suggested.	Many of the expected outcomes are achieved. Many observations and inferences are made, and attempts to identify the issues are done. Some suggestions are made for further work.	Most of the stated outcomes are met. Extensive studies are done and inferences drawn. Most of the failures are addressed and solutions suggested. Clear and valid suggestions made for further work.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	*(5 Marks)*

2-i	Documentation and presentation. -[CO6] [Individual assessment]	5	The individual student has no idea on the presentation of his/her part. The presentation is of poor quality	Presentation's overall quality needs to be improved.	The individual's presentation performance is satisfactory.	The individual's presentation is done professionally and with great clarity. The individual's performance is excellent.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

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EVALUATION RUBRICS for PROJECT Phase II: Final Evaluation

Sl. b.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
2-j	*Engineering knowledge. [CO1] [Group Assessment]*	10	The team does not show any evidence of applying engineering knowledge on the design and the methodology adopted.	The team is able to show some of the design procedure and the methodologies adopted, but not in a comprehensive manner.	The team is able to show evidence of application of engineering knowledge in the design and development of the project to good extent. There is scope for improvement.	Excellent knowledge in design procedure and its adaptation. The team is able to apply knowledge from engineering domains to the problem and develop an excellent solution.
			(0 – 3 Marks)	*(4 – 6 Marks)*	*(7-9 Marks)*	*(10 Marks)*

2-k	Relevance of the project with respect to societal and/or industrial needs. [Group Assessment] [CO2]	5	The project as a whole do not have any societal / industrial relevance at all.	The project has some relevance with respect to social and/or industrial application. The team has however made not much effort to explore further and make it better.	The project is relevant to the society and/or industry. The team is mostly successful in translating the problem into an engineering specification and managed to solve much of it.	The project is exceptionally relevant to society and/or industry. The team has made outstanding contribution while solving the problem in a professional and/ or ethical manner.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

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2-I	Innovation / novelty / Creativity [CO5] [Group Assessment]	5	The project is not addressing any useful requirement. The idea is evolved into a non-implementable one. The work presented so far is lacking any amount of original work by the team.	Some of the aspects of the proposed idea appears to be practical. There is still lack of originality in the work done. The project is a regularly done theme/topic without any freshness in terms of specifications, features, and/ or improvements.	Good evidence of an implementable project. There is some evidence for the originality of the work done by the team. There is fresh specifications/ features/improvements suggested by the team. The team is doing a design from fundamental principles, and there is some independent learning and	The project has evolved into incorporating an outstandingly novel idea. Original work which is not yet reported anywhere else. Evidence for ingenious way of innovation which is also implementable. Could be a patentable publishable work.

					engineering ingenuity. Could be translated into a product / process if more work is done.	
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-m	Quality of results /conclusions / solutions. [CO1] [Group Assessment]	10	None of the expected outcomes are achieved. The team is unable to derive any inferences on the failures/issues observed. Any kind of observations or	Only a few of the expected outcomes are achieved. A few inferences are made on the observed failures/issues. No further work suggested.	Many of the expected outcomes are achieved. Many observations and inferences are made, and attempts to identify the issues are done. Some	Most of the stated outcomes are met. Extensive studies are done and inferences drawn. Most of the failures are addressed and solutions suggested. Clear

			studies is not made.		suggestions are made for further work.	and valid suggestions made for further work.
			(0 – 3 Marks)	(4 – 6 Marks)	(7-9 Marks)	(10 Marks)
2-n	Presentation - Part I Preparation of slides. [CO6] [Group Assessment].	5	The presentation slides are shallow and in a clumsy format. It does not follow proper organization.	Presentation slides follow professional style formats to some extent. However, its organization is not very good. Language needs to be improved. All references are not cited properly, or	Presentation slides follow a good style format and there are only a few issues. Organization of the slides is good. Most of references are cited properly. The flow is good and team	The presentation slides are exceptionally good. Neatly organized. All references cited properly. Diagrams/Figures, Tables and equations are properly numbered, and l i s ted. Results/

				acknowledged. Presentation slides needs to be more professional.	presentation is neatly organized. Some of the results are not clearly shown. There is room for improvement.	inferences clearly highlighted and readable.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
	Presentation - PartII: Individual Communication [CO6] [Individual Assessment].	5	The student is not communicating properly. Poor response to questions.	The student is able to explain some of the content. The student requires a lot of prompts to get to the idea. There are language issues.	Good presentation/ communication by the student. The student is able to explain most of the content very well. There are however, a few areas where the	Clear and concise communication exhibited by the student. The presentation is outstanding. Very confident and tackles all the questions without

					student shows lack of preparation. Language is better.	hesitation. Exceptional traits of communicator.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

EVALUATION RUBRICS for PROJECT Phase II: Report Evaluation

No.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
2-o	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. References are not cited. Unprofessional and inconsistent formatting.	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. There is lack of formatting consistency.	Project report shows evidence of systematic documentation. Report is mostly following the standard style format and there are only a few issues. Organization of the report is good. Mostly consistently formatted. Most of references/sources are cited/ acknowledged 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 professional styles. Consistent formatting and exceptional readability.

			(0 - 4 Marks)	(5 - 8 Marks)	(9 - 18 Marks)	(19 - 20 Marks)

EVALUATION RUBRICS for PROJECT Phase II: Publication

No.	Parameters	Marks	Submitted		Accepted		
2-p	Publication [CO6]	10	National / International conference	Scopus/ SCI indexed Journal	National / International conference	National / International conference with proceedings in SCI/Scopus	Scopus/ SCI indexed Journal
			(6 Marks)	(7 Marks)	(8 Marks)	(9 Marks)	(10 Marks)

Distbutions:

1. Mmbers concerned (through mail)

Dr. Jeethu V Devasia HOD, CSE

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSD416: PROJECT PHASE 2

S8 CSE A (2019-2023 BATCH)

PROJECT SCHEDULE

FIRST REVIEW : 06/03/2023

SECOND REVIEW : 17/04/2023

19/01/23

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

S8 CSE A(2019-2023 BATCH)

FIRST REVIEW PRESENTATION SCHEDULE (13-03-23& 17-03-23)

Sl. No.	University registrar number	Name	Group No.	Time	Guide
1	VML19CS062	Hrithwik P V	1	17-03-23 09:00 am-09:30 am	Ms. Rahna C. M
2	VML19CS013	Anwar K			
3	VML19CS049	**Dennis** Benny(L)			
4	VML19CS064	Jestin Raju			
5	VML19CS009	Aditya Tejas(L)	2	13-03-23 11.40 am -12.10 pm	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju			
7	VML19CS045	Herly Xavier			
8	VML19CS060	Harigovin M	3	17-03-23 10:00 am-10:30 am	Mrs. Tintu Devasia
9	VML19CS111	Sruthi P K			
10	VML19CS016	**Akshay chandra (L)**			
11	VML19CS011	Adwaith Krishna			
12	VML19CS032	Ann Rose Issac	4	13-03-23 02:00 pm -02:30 pm	Mrs. Drosha P K
13	VML19CS068	Keerthana K			
14	VML19CS079	V Pournami			
15	VML19CS093	**Shani Thomas(L)**			
16	VML19CS092	Shahan Abdulla K	5	17-03-23 10:30 am- 11:00 am	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**			
18	VML19CS076	Nihal V George			
19	VML19CS057	Faez Muhammed M			
20	VML19CS001	**Aalap** Ragesh(L)	6	13-03-23 02:30 pm -03:00 pm	Mr Rijin I K
21	VML19CS053	Diya S			
22	VML19CS022	Alenteena Sebastian			
23	VML19CS107	Sona. P			
24	VML19CS004	**Abhinev Thomas(L)**	7	17-03-23 11:40 am -12:10 pm	Ms.Ujwala Vijayan
25	VML19CS059	Farzeen Raheem			
26	VML19CS047	Darshitha K			
27	VML19CS099	Shythya P V			
28	VML19CS066	Joshua Mathew	8	13-03-23 11:10 am -11:40 am	Ms. Diya Rameshan
29	VML19CS020	Albin Thomas			
30	VML19CS105	**Saigdha Sathyanathan(L)**			
31	VML19CS033	Antony Thomas			
32	VML19CS014	Akash Ajith	9	17-03-23 01:00 pm - 01:30 pm	Ms. Rajitha K V
33	VML19CS090	Sangeeth K			
34	VML19CS082	**Sharon Rose Babu(L)**			
35	VML19CS100	Sidharthan AK			
36	VML19CS113	Uvais Hassan	10	13-03-23 01:00 pm - 01:30 pm	Mrs. Divya B
37	VML19CS056	**EP Gopika (L)**			
38	VML19CS006	Adheena KM			
39	VML19CS051	Dheeraj K			
40	VML19CS027	Anamika Prakash A	11	17-03-23 02:30 pm - 03:00 pm	Mr.Abhiram P
41	VML19CS073	Muhsina Musthafa			
42	VML19CS025	**Anhill Jacob (L)**			
43	VML19CS087	Rose Mariya Joy			
44	VML19CS036	Anurag C Ashok	12	17-03-23 01.30 pm - 02:00 pm	Ms Divya K
45	VML19CS003	Abhinav c			
46	VML19CS018	**Akshay sasi(L)**			
47	VML19CS082	Rahman K T			
48	VML19CS038	Arjun KV (L)	13	17-03-23 02:00 pm - 02:30 pm	Ms. Nayana Suresh
49	VML19CS043	Augustin Rohan			
50	VML19CS102	Sidharth K V			
51	VML19CS041	Arwin Augustine			
52	VML19CS109	**Sreehari Jayesh (L)**	14	13-03-23 09:00am-09.30 am	Mrs. Sreeraj Narayanan
53	VML19CS072	Muhammed Razi Riyaz			
54	VML19CS077	Nikhil Ramesh			
55	VML19CS088	Sahad Abdul Rahman			
56	VML19CS029	Anjana Suresh	15	13-03-23 01.30 pm - 02:00 pm	Ms. Sreelakshmi M
57	VML19CS060	Annumitha S Pradeu			
58	VML19CS085	Riya Rose			
59	VML19CS115	V R Arya (L)			

Co-ordinator 17/3/23

17/3/23

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416: PROJECT PHASE I CSA

First Evaluation (Project coordinator)

Sl. No.	University register number	Name	Novelty of idea, and implementation scope [CO5] (Group Evaluation) 5 Mark	Effectiveness of task distribution among team members. [CO3] (Group Evaluation) 5 Mark	Adherence to project schedule [CO4] (Group Evaluation) 5 Mark	Interim Results [CO6] (Group assessment) 5 Mark	Presentation (individual assessment) 5 Mark	Total (25)	Group No.	Guide
1	VML19CS[illegible]	[illegible] K P V	4	4	4	4	4	20		
2	VML19CS[illegible]	Ayman K	4	4	4	4	4	20		
3	VML19CS[illegible]	Deanis Benny(L)	4	4	4	4	4	20		
4	VML19CS[illegible]	Jestin Rasu	4	4	4	4	4	20	1	Ms. Rahna C M
5	VML19CS[illegible]	Aditya Rajeev(L)	4	4	5	3	4	18		
6	VML19CS[illegible]	Bhasil [illegible]	4	4	3	3	3	17		
7	VML19CS[illegible]	Basily Navas	4	4	3	3	3	17	2	Mr. Abdul Lateef
8	VML19CS[illegible]	[illegible] M	4	4	4	3	3	18		
9	VML19CS[illegible]	Sruthi P K	4	4	4	3	3	18		
10	VML19CS[illegible]	Akshay chandra (L)	4	4	4	3	3	18		
11	VML19CS[illegible]	Adwaith Krishna	4	4	4	3	3	18	3	Mrs. Tetty Devasia
12	VML19CS[illegible]	Ann Rose Jose	4	4	4	3	3	18		
13	VML19CS[illegible]	Keerthana K	4	4	4	3	3	18		
14	VML19CS[illegible]	V Poornima	4	4	4	3	3	18		
15	VML19CS[illegible]	Sinol Thomas(L)	4	4	4	3	3	18	4	Mrs. Deepthi P R
16	VML19CS[illegible]	Shahan Abdulla K	4	4	4	4	3	19		
17	VML19CS[illegible]	Manu Mathew Jiss (L)	4	4	4	4	3	19		
18	VML19CS[illegible]	Nihal V George	4	4	4	4	3	19		
19	VML19CS[illegible]	Faez Muhammed M	4	4	4	4	3	19	5	Mr. Najeeb Saleem
20	VML19CS[illegible]	Aalap Rajesh	4	4	4	4	4	20		
21	VML19CS[illegible]	Diya S	4	4	4	4	3	19		
22	VML19CS[illegible]	Aleyamma Sebastian	4	4	4	4	3	19		
23	VML19CS[illegible]	Sona P	4	4	4	4	4	20	6	Mr. Rajan I K
24	VML19CS[illegible]	Abhinav Thomas(L)	5	5	4	4	4	22		
	VML19CS[illegible]	Fazeen Rahman	5	5	4	4	4	22		
25	VML19CS[illegible]	Darshitha R	5	5	4	4	4	22	7	Ms. Ujwala Vijayan
26	VML19CS[illegible]	Shylaja P V	5	5	4	4	4	22		
27	VML19CS[illegible]	Joshua Mathew	5	5	5	5	4	24		
28	VML19CS[illegible]	Albin Thomas	5	5	5	5	4	24		
29	VML19CS[illegible]	Sreedhu Sachyanathan(L)	5	5	5	5	4	24	8	Ms. Diya Ramesh
30	VML19CS[illegible]	Aneesy Thomas	5	5	5	4	5	24		
31	VML19CS[illegible]	Adarsh Ajith	5	5	5	4	5	24		
32	VML19CS[illegible]	Sangeeth R	5	5	5	4	5	24		
33	VML19CS[illegible]	Sharon Rose Baby(L)	5	5	5	4	5	24	9	Ms. Najitha K V
34	VML19CS[illegible]	Sidharthan AK	5	5	5	4	5	24		
35	VML19CS[illegible]	Uvais Hassan	5	5	5	4	5	24		
36	VML19CS[illegible]	KP Gopika (L)	5	5	5	4	4	23		
37	VML19CS[illegible]	Adheena KM	5	5	5	4	3	22	10	Mrs. Divya B
38	VML19CS[illegible]	Dhanraj K	5	4	4	4	5	22		
39	VML19CS[illegible]	Ananthu Prakash A	5	4	4	4	5	22		
40	VML19CS[illegible]	Mubasin Musthafa	5	4	4	4	5	22		
41	VML19CS[illegible]	Aadhil Jacob (L)	5	4	4	4	5	22	11	Mr. Abhiram P
42	VML19CS[illegible]	Rose Mariya Jiss	4	4	4	4	4	20		
43	VML19CS[illegible]	Anurag C Ashok	4	4	4	4	4	20		
44	VML19CS[illegible]	Abhinav [illegible]	4	4	4	4	4	20		
45	VML19CS[illegible]	Akshay [illegible](L)	4	4	4	4	4	20	12	Ms. Divya K
46	VML19CS[illegible]	Rahman K T	4	4	4	4	4	20		
47	VML19CS[illegible]	Arjun KV (L)	4	4	4	4	4	20		
48	VML19CS[illegible]	Augustin Babu	4	4	4	4	4	20		
49	VML19CS[illegible]	Sidharth E V	4	4	4	4	4	20	13	Ms. Nayana Suresh
50	VML19CS[illegible]	Aron Augustine	4	4	4	3	4	19		
51	VML19CS[illegible]	[illegible] Jayesh (L)	4	4	4	3	4	19		
52	VML19CS[illegible]	Mohammed Razi Riyas	4	4	4	3	3	18		
53	VML19CS[illegible]	Nabil Ameen	4	4	4	3	2	17	14	Mrs. Soorya Surendran
54	VML19CS[illegible]	Sahad Abdul Rahman	4	4	4	3	3	18		
55	VML19CS[illegible]	Anjana Suresh	4	4	4	3	3	18		
56	VML19CS[illegible]	Anamika S Prabhu	4	4	4	3	3	18		
57	VML19CS[illegible]	Riya Roze	4	4	4	3	5	20	15	Ms. Sreelakshmi M
58	VML19CS[illegible]	V R Arya (L)	4	4	4	3				

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24/03/23

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416: PROJECT PHASE 1 CSA

First Evaluation (Senior faculty member)

Sl. No.	University register number	Name	Novelty of idea, and implementation scope [CO1] [Group Evaluation] 5 Mark	Effectiveness of task distribution among team members [CO2] [Group Evaluation] 5 Mark	Adherence to project schedule [CO4] [Group Evaluation] 5 Mark	Interim Results [CO4] [Group assessment] 5 Mark	Presentation [Individual assessment] 5 Mark	Total (25)	Group No.	Guide
1	VML19CS[illegible]	Hrithvik P V	4	4	4	4	4	20		
2	VML19CS[illegible]	Anand R	4	4	4	4	5	21		
3	VML19CS[illegible]	[illegible] (L)	4	4	5	4	5	22		
4	VML19CS[illegible]	Jeson Raju	4	4	4	4	4	20	1	Ms. Rahna C M
5	VML19CS[illegible]	Aditya Rajesh (L)	4	5	3	3	4	18		
6	VML19CS[illegible]	Shahil Nair	4	4	3	3	3	17		
7	VML19CS[illegible]	Betty Xavier	4	4	3	3	3	17	2	Mr. Abdul Latheef
8	VML19CS[illegible]	Hanjeeya M	4	4	3	4	4	19		
9	VML19CS[illegible]	Sruthi P K	4	4	3	4	4	19		
10	VML19CS[illegible]	Akshay chandra (L)	4	4	3	4	4	19		
11	VML19CS[illegible]	Adwaith Krishna	4	4	3	4	4	19	3	Mrs. Tinky Sasidas
12	VML19CS[illegible]	Ann Rose Jose	4	5	4	4	5	22		
13	VML19CS[illegible]	Keerthana R	4	5	4	4	4	21		
14	VML19CS[illegible]	V Poornima	4	5	4	4	4	21		
15	VML19CS[illegible]	Shoni Thomas (L)	4	5	4	4	4	21	4	[illegible]
16	VML19CS[illegible]	Shahan Abdulla K	4	4	4	4	5	21		
17	VML19CS[illegible]	Manu Mathew Jim (L)	4	4	4	4	5	21		
18	VML19CS[illegible]	Nihal V George	4	4	4	4	5	21		
19	VML19CS[illegible]	Fazz Muhammed M	4	4	4	4	5	21	5	Ms. Najma Salam
20	VML19CS[illegible]	Ashly Rajesh	4	4	4	4	4	20		
21	VML19CS[illegible]	Diya R	4	4	4	4	3	19		
22	VML19CS[illegible]	Goutama Sebastian	4	4	4	4	3	19		
23	VML19CS[illegible]	Sona T	4	4	4	4	4	20	6	Mr. Ryan J K
24	VML19CS[illegible]	Abhinav Thomas (L)	4	4	4	4	4	20		
	VML19CS[illegible]	Fazeena Rahman	4	4	4	4	4	20		
25	VML19CS[illegible]	Darshitha K	4	4	4	4	3	19		
26	VML19CS[illegible]	Shilpa P V	4	4	4	4	4	20	7	Ms. Upeksha Vijayan
27	VML19CS[illegible]	Jodan Mathew	5	4	5	4	5	23		
28	VML19CS[illegible]	Albin Thomas	5	4	5	4	5	23		
29	VML19CS[illegible]	Sangitha Sathyanathan (L)	5	4	5	4	5	23		
30	VML19CS[illegible]	Antony Thomas	5	4	5	4	5	23	8	Ms. Diya Ramesan
31	VML19CS[illegible]	Akash Ajith	5	4	4	4	5	22		
32	VML19CS[illegible]	Sangeeth K	5	4	4	4	5	22		
33	VML19CS[illegible]	Sharon Rose Rahul (L)	5	4	4	4	5	22		
34	VML19CS[illegible]	Sidharthan A K	5	4	4	4	5	22	9	Ms. Sagitha K V
35	VML19CS[illegible]	Uvais Hassan	5	5	5	4	5	24		
36	VML19CS[illegible]	KP Gopika (L)	5	5	5	4	5	24		
37	VML19CS[illegible]	Adhavan KM	5	5	5	4	4	23		
38	VML19CS[illegible]	Dhanraj K	5	5	5	4	3	22	10	Mrs. Divya B
39	VML19CS[illegible]	Anamika Prakash A	4	4	5	4	5	22		
40	VML19CS[illegible]	Makana Maathish	4	4	5	4	4	21		
41	VML19CS[illegible]	Aadith Jacob (L)	4	4	5	4	4	21		
42	VML19CS[illegible]	Rose Mariya Joy	4	4	5	4	5	22	11	Ms. Abhirami P
43	VML19CS[illegible]	Anurag C Ashok	4	4	4	5	4	21		
44	VML19CS[illegible]	Abhinav [illegible]	4	4	4	5	4	21		
45	VML19CS[illegible]	Akshay sunil (L)	4	4	4	5	4	21		
46	VML19CS[illegible]	Rahman K T	4	4	4	6	4	21	12	Ms. Divya K
47	VML19CS[illegible]	Arjun KV (L)	4	4	4	5	5	23		
48	VML19CS[illegible]	[illegible] Rahim	4	4	4	5	5	23		
49	VML19CS[illegible]	Sidharth K V	4	4	4	5	5	23		
50	VML19CS[illegible]	Aswin Augustine	4	4	4	5	5	22	13	Ms. Nayana Suresh
51	VML19CS[illegible]	Sreehari Jayesh (L)	4	4	4	3	4	19		
52	VML19CS[illegible]	Muhammed Rafi Rasheed	4	4	4	3	4	19		
53	VML19CS[illegible]	Nabil Rasheed	4	4	4	3	3	18		
54	VML19CS[illegible]	Sahad Abdul Rahiman	4	4	4	3	2	19	14	Mrs. Sreeraja Narayanan
55	VML19CS[illegible]	Anjana Suresh	4	4	4	5	3	20		
56	VML19CS[illegible]	Anamika V Prabhu	4	4	4	5	3	20		
57	VML19CS[illegible]	Riya Rose	4	4	4	5	3	20		
58	VML19CS[illegible]	V R Anna (L)	4	4	4	5	4	21	15	Ms. [illegible]

Senior faculty member

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416 PROJECT PHASE I CIA

First Evaluation (Guide)

Sl. No.	University register number	Name	Novelty of Idea, and Implementation scope [CO5] [Group Evaluation] 5 Mark	Effectiveness of task distribution among team members [CO3] [Group Evaluation] 5 Mark	Adherence to project schedule [CO4] [Group Evaluation] 5 Mark	Interim Results [CO6] [Group assessment] 5 Mark	Presentation [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
1	[illegible]	Hrithik P V	4	4	4	4	4	20		
2	[illegible]	Aswin K	4	4	4	4	5	21		
3	[illegible]	Basil Benny(L)	4	4	5	4	5	22		
4	[illegible]	Jerin Raju	4	4	4	4	4	20	1	Ms. Rahna C M
5	[illegible]	Athira Rajesh(L)	4	3	5	3	4	19		
6	[illegible]	Basil Shaju	4	3	5	3	4	19		
7	[illegible]	Reily Xavier	4	3	5	3	4	19	2	[illegible]
8	[illegible]	Hrejwin M	4	4	3	4	4	19		
9	[illegible]	Jyothi PK	4	4	3	4	4	19		
10	[illegible]	Akshay chandra (L)	4	4	3	4	4	19		
11	[illegible]	Adwaith Krishna	4	4	3	4	4	19	3	Mrs. Tintu Devasia
12	[illegible]	Ann Rose Jose	4	5	4	4	5	22		
13	[illegible]	Karthika K	4	5	4	4	4	21		
14	[illegible]	V Poornima	4	5	4	4	4	21		
15	[illegible]	Shoni Thomas(L)	4	5	4	4	4	21	4	[illegible]
16	[illegible]	Shahan Abdulla A	4	4	4	4	4	20		
17	[illegible]	Manu Mathew Jiju (L)	4	4	4	4	4	20		
18	[illegible]	Nihal V George	4	4	4	4	4	20		
19	[illegible]	Faiz Muhammed M	4	4	4	4	4	20	5	[illegible]
20	[illegible]	Adity Rajesh	5	5	5	4	4	23		
21	[illegible]	Diya S	5	5	5	4	4	23		
22	[illegible]	Aleena Sebastian	5	5	5	4	4	23		
23	[illegible]	Sona P	5	5	5	4	4	23	6	[illegible]
24	[illegible]	Abhinav Thomas(L)	5	5	5	4	5	24		
	[illegible]	Farzana Rahman	5	5	5	4	4	23		
25	[illegible]	Harshitha K	5	5	5	4	4	23		
26	[illegible]	Diviya P V	5	4	4	4	4	21	7	[illegible]
27	[illegible]	Joshua Mathew	5	5	5	5	4	24		
28	[illegible]	Albin Thomas	5	5	5	5	4	24		
29	[illegible]	Jeswin Sathyanathan(L)	5	5	5	5	5	25		
30	[illegible]	Ammu Thomas	5	5	5	5	5	25	8	Ms. Diya Ramesh
31	[illegible]	Akash Ajith	5	5	5	5	5	24		
32	[illegible]	Sangeeth S	5	5	5	5	4	24		
33	[illegible]	Sharon Rose Babu(L)	5	5	5	5	5	34		
34	[illegible]	Sebastian AK	5	5	5	5	5	24	9	[illegible]
35	[illegible]	Ussai Hassan	5	5	5	4	4	23		
36	[illegible]	KP Gopika (L)	5	5	5	4	4	23		
37	[illegible]	Adheena KM	5	5	5	4	5	24		
38	[illegible]	Dhanya K	5	5	5	4	3	22	10	Mrs. Divya B
39	[illegible]	Anandu Prakash A	4	5	5	4	5	23		
40	[illegible]	Muhammed Mushtaq	4	5	5	4	5	23		
41	[illegible]	Aashik Jacob (L)	4	5	5	4	5	23		
42	[illegible]	Rose Mariya Joy	4	5	5	4	5	23	11	[illegible]
43	[illegible]	Anurag C Ashok	4	4	5	5	5	23		
44	[illegible]	Athulya	4	4	5	5	5	23		
45	[illegible]	Akshay anil(L)	4	4	5	5	5	23		
46	[illegible]	Rahna K T	4	4	5	5	3	21	12	[illegible]
47	[illegible]	Arjun KP (L)	4	5	4	3	4	20		
48	[illegible]	Augustin Rahim	4	5	4	3	4	20		
49	[illegible]	Adharsh K V	4	5	4	3	4	20		
50	[illegible]	Ashik Augustine	4	5	4	3	4	20	13	[illegible]
51	[illegible]	Sradhart Jayesh (L)	4	3	4	4	4	19		
52	[illegible]	Muhammed Raza Rasic	4	3	4	4	4	19		
53	[illegible]	Nihal Kannoth	4	3	4	4	4	19		
54	[illegible]	Suhail Abdul Rahman	4	3	4	4	3	18	14	[illegible]
55	[illegible]	Jayan Suresh	5	5	4	5	4	23		
56	[illegible]	Ananthu T Prabhu	5	5	4	5	4	23		
57	[illegible]	Riya Rose	5	5	4	5	4	23		
58	[illegible]	V B Arya (L)	5	5	4	5	4	24	15	[illegible]

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CSD416: PROJECT PHASE II
PROJECT SUPERVISOR'S AREA OF RESEARCH / SPECIALIZATION

Sl. No	Name of Faculty	Designation	Area of Specialization/Research
1	Dr. Jeethu V Devasia	Professor & HoD	Quantum computing/Machine Learning/IoT
2	Mrs. Divya B	Associate Professor	Machine Learning/IoT
3	Mrs.Neena V V	Associate Professor	Machine Learning/IoT
4	Mr. Abdul Latheef	Associate Professor	Machine Learning, Image Processing,IoT
5	Mrs. Vidhya S S	Assistant Professor	Machine Learning, IoT, Network
6	Mrs. Divya K	Assistant Professor	Image processing , VLSI
7	Mrs. Tintu Devasia	Assistant Professor	Information security
8	Mrs. Nayana Suresh	Assistant Professor	Machine Learning, Image Processing
9	Mrs.Sreeraji Narayanan	Assistant Professor	Machine learning, Image Processing
10	Mr. Rijin I.K	Assistant Professor	Information security
11	Mrs. Najira Salam	Assistant Professor	Network Security
12	Mrs.Rajitha K. V.	Assistant Professor	Machine learning
13	Mrs.Ujwala Vijayan	Assistant Professor	Machine Learning,Image Processing
14	Ms.Sisna P	Assistant Professor	Network and Security
15	Mrs. Suhada C	Assistant Professor	Machine Learning
16	Mrs. Diya Rameshan	Assistant Professor	Network Security
17	Ms. Rahna C. M.	Assistant Professor	Deep Learning
18	Mr Abhiram P	Assistant Professor	Machine learning
19	Ms. Sreelakshmi M	Assistant Professor	Network and security
20	Mrs. Manju M	Assistant Professor	Cloud Computing
21	Ms. Sreedaya M	Assistant Professor	Network and security
22	Mrs. Dinsha P K	Assistant Professor	Machine learning
23	Ms.Liji Merlin Kurian	Assistant Professor	Machine learning

PROJECT COORDINATOR
19/07/23

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

S8 CSE A(2019-2023 BATCH)

SECOND REVIEW PRESENTATION SCHEDULE (28-04-23& 29-04-23)

Sl. No.	University registrar number	Name	Group No.	Time	Guide
1	VML19CS062	Hrithwik P V	1	28-04-23 09:00 am-09:30 am	Ms. Rahna C. M.
2	VML19CS013	Aiswar K			
3	VML19CS049	**Dennis Benny(L)**			
4	VML19CS064	Jestin Raju			
5	VML19CS009	**Aditya Tejus(L)**	2	29-04-23 11:40 am -12:10 pm	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju			
7	VML19CS045	Berly Xavier			
8	VML19CS060	Haripriya M	3	28-04-23 10:00 am-10:30 am	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K			
10	VML19CS016	**Akshay chandra (L)**			
11	VML19CS011	Adwaith Krishna			
12	VML19CS032	Ann Rose Issac	4	29-04-23 02:00 pm -02:30 pm	Mrs. Dinsha P K
13	VML19CS068	Keerthana K			
14	VML19CS079	V Pournami			
15	VML19CS093	**Shani Thomas(L)**			
16	VML19CS092	Shahan Abdulla K	5	28-04-23 10:30 am- 11:00 am	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**			
18	VML19CS076	Nihal V George			
19	VML19CS057	Faez Muhammed M			
20	VML19CS001	**Aalap Ragesh(L)**	6	29-04-23 02:30 pm -03:00 pm	Mr Rijin I K
21	VML19CS053	Diya S			
22	VML19CS022	Alenteena Sebastian			
23	VML19CS107	Sona. P			
24	VML19CS004	**Abhincy Thomas(L)**	7	28-04-23 11:40 am -12:10 pm	Ms.Ujwala Vijayan
25	VML19CS059	Farzeen Rahman			
26	VML19CS047	Darshitha K			
27	VML19CS099	Shythya P V			

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

S8 CSE A(2019-2023 BATCH)

SECOND REVIEW PRESENTATION SCHEDULE (28-04-23& 29-04-23)

28	VML19CS066	Joshua Mathew	8	29-04-23 11:10 am -11:40 am	Ms. Diya Rameshan
29	VML19CS020	Albin Thomas			
30	VML19CS105	**Snigdha Sathyanathan(L)**			
31	VML19CS033	Antony Thomas			
32	VML19CS014	Akash Ajith	9	28-04-23 01:00 pm - 01:30 pm	Ms. Rajitha K V
33	VML19CS090	Sangeeth K			
34	VML19CS082	**Sharon Rose Babu(L)**			
35	VML19CS100	Sidharthan AK			
36	VML19CS113	Uvais Hassan	10	29-04-23 01:00 pm - 01:30 pm	Mrs. Divya B
37	VML19CS056	**EP Gopika (L)**			
38	VML19CS006	Adheena KM			
39	VML19CS051	Dheeraj K			
40	VML19CS027	Anamika Prakash A	11	28-04-23 02:30 pm - 03:00 pm	Mr.Abhiram P
41	VML19CS073	Muhsina Musthafa			
42	VML19CS025	**Ambili Jacob (L)**			
43	VML19CS087	Rose Mariya Joy			
44	VML19CS036	Anurag C Ashok	12	28-04-23 01:30 pm - 02:00 pm	Ms.Divya K
45	VML19CS003	Abhinav c			
46	VML19CS018	**Akshay sasi(L)**			
47	VML19CS082	Rahnas K T			
48	VML19CS038	**Arjun KV (L)**	13	28-04-23 02:00 pm - 02:30 pm	Ms. Nayana Suresh
49	VML19CS043	Augustin Robins			
50	VML19CS102	Sidharth K V			
51	VML19CS041	Aswin Augustine			
52	VML19CS109	**Sreehari Jayesh (L)**	14	29-04-23 09:00am-09:30 am	Mrs.Sreeraji Narayanan
53	VML19CS072	Mohammed Razi Riyaz			
54	VML19CS077	Nikhil Remesh			
55	VML19CS088	Sahad Abdul Rahman			
56	VML19CS029	Anjana Suresh	15	29-04-23 01:30 pm - 02:00 pm	Ms. Sreelakshmi M
57	VML19CS060	Anumitha S Pradiu			
58	VML19CS085	Riya Rose			
59	VML19CS115	**V R Arya (L)**			

Co-ordinator 20/04/23

HOD 20/4/23

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DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

Second Evaluation-Senior Faculty

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 mARK	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. .[CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
1	VML19CS062	Hrithwik P V	10	4	4	4	22	1	Ms. Rahna C. M.
2	VML19CS013	Anwar K	10	4	4	4	22		
3	VML19CS049	Dennis Benny(L)	10	4	4	4	22		
4	VML19CS064	Jestin Raju	10	4	4	4	22		
5	VML19CS009	Aditya Tejus(L)	10	4	4	4	22	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	10	4	4	4	22		
7	VML19CS045	Berly Xavier	10	4	4	4	22		
8	VML19CS060	Haripriya M	10	4	4	4	22	3	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K	10	4	4	4	22		
10	VML19CS016	Akshay chandra (L)	10	4	4	4	22		
11	VML19CS011	Adwaith Krishna	10	4	4	4	22		
12	VML19CS032	Ann Rose Issac	10	4	5	4	23	4	Mrs. Dimsha P K
13	VML19CS068	Keerthana K	10	4	5	4	23		
14	VML19CS079	V Pournami	10	4	5	4	23		
15	VML19CS093	Shani Thomas(L)	10	4	5	4	23		
16	VML19CS092	Shahan Abdulla K	10	4	4	4	22	5	Ms. Najira Salam
17	VML19CS070	Maau Mathew Jins (L)	10	4	4	4	22		
18	VML19CS076	Nihal V George	10	4	4	4	22		
19	VML19CS057	Faez Muhammed M	10	4	4	4	22		

DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

Second Evaluation-Senior Faculty

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 mARK	Involvement of individual members [CO3] [Individual Assessment] 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. [CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
20	VML19CS001	Aalap Ragesh	10	5	4	5	24		
21	VML19CS053	Diya S	10	5	4	5	24		
22	VML19CS022	Alummona Sebastian	10	5	4	5	24	6	Mr Rijin I K
23	VML19CS107	Sona. P	10	5	4	5	24		
24	VML19CS004	Abhiney Thomas(L)	10	5	4	4	23		
	VML19CS059	Farzeen Rahman	10	5	4	4	23		
25	VML19CS047	Darshitha K	10	5	4	4	23	7	Ms.Ujwala Vijayan
26	VML19CS099	Shythya P V	10	5	4	4	23		
27	VML19CS066	Joshua Mathew	10	5	5	5	25		
28	VML19CS020	Albin Thomas	10	5	5	5	25		
29	VML19CS105	Snigdha Sathyanathan(L)	10	5	5	5	25		Ms. Diya Rameshan
30	VML19CS033	Antony Thomas	10	5	5	5	25	8	
31	VML19CS014	Akash Ajith	10	5	5	5	25		
32	VML19CS090	Sangeeth K	10	5	5	5	25		
33	VML19CS082	Sharon Rose Babu(L)	10	5	5	5	25		Ms. Rajitha K V
34	VML19CS100	Sidharthan AK	10	5	5	5	25	9	
35	VML19CS113	Uvais Hassan	10	5	5	5	25		
36	VML19CS056	EP Gopika (L)	10	5	5	5	25		
37	VML19CS006	Adheena KM	10	5	5	5	25		
38	VML19CS051	Dheeraj K	10	5	5	5	25	10	Mrs. Divya B

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DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

Second Evaluation-Senior Faculty

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 mARK	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. .[CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
39	VML19CS027	Anamika Prakash A	10	4	4	5	23		
40	VML19CS073	Muhsina Musthafa	10	4	4	5	23		
41	VML19CS025	**Ambili Jacob (L)**	10	4	4	5	23		
42	VML19CS087	Rose Mariya Joy	10	4	4	5	23	11	Mr.Abhiram P
43	VML19CS036	Anurag C Ashok	10	4	4	5	23		
44	VML19CS003	Abhinav c	10	4	4	5	23		
45	VML19CS018	**Akshay susi(L)**	10	4	4	5	23		
46	VML19CS082	Rahmas K T	10	4	4	5	23	12	Ms.Divya K
47	VML19CS038	**Arjun KV (L)**	10	4	4	5	23		
48	VML19CS043	Augustin Robins	10	4	4	5	23		
49	VML19CS102	Sidharth K V	10	4	4	5	23		
50	VML19CS041	Aswin Augustine	10	4	4	5	23	13	Ms. Nayana Suresh
51	VML19CS109	**Sreehari Jayesh (L)**	10	4	5	4	23		
52	VML19CS072	Muhammed Razi Riyaz	10	4	5	4	23		
53	VML19CS077	Nikhil Remesh	10	4	5	4	23		
54	VML19CS088	Sahad Abdul Rahman	10	4	5	4	23	14	Mrs.Sreeraji Narayanan
55	VML19CS029	Anjana Suresh	10	4	4	4	22		
56	VML19CS034	Anumitha S Pradiu	10	4	4	4	22		
57	VML19CS085	Riya Rose	10	4	4	4	22		
58	VML19CS115	**V R Arya (L)**	10	4	4	4	22	15	Ms. Sreelakshmi M

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DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Senior faculty member

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
1	VML19CS062	Hrithwik P V	20	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	20		
3	VML19CS049	**Dennis Benny(L)**	20		
4	VML19CS064	Jestin Raju	20		
5	VML19CS009	**Aditya Tejus(L)**	20	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	20		
7	VML19CS045	Berly Xavier	20		
8	VML19CS060	Haripriya M	20	3	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K	20		
10	VML19CS016	**Akshay chandra (L)**	20		
11	VML19CS011	Adwaith Krishna	20		
12	VML19CS032	Ann Rose Issac	20	4	Mrs. Dinsha P K
13	VML19CS068	Keerthana K	20		
14	VML19CS079	V Pournami	20		
15	VML19CS093	**Shani Thomas(L)**	20		
16	VML19CS092	Shahan Abdulla K	20	5	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**	20		
18	VML19CS076	Nihal V George	20		
19	VML19CS057	Faez Muhammed M	20		
20	VML19CS001	Aalap Ragesh	20	6	Mr Rajan I K
21	VML19CS053	Diya S	20		
22	VML19CS022	Alenteena Sebastian	20		
23	VML19CS107	Sona. P	20		

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DEPARTMENT OF CSE

CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Senior faculty member

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
24	VML19CS004	**Abhincy Thomas(L)**	20		
	VML19CS059	Farzeen Rahman	20		
25	VML19CS047	Darshitha K	20		Ms.Ujwala Vijayan
26	VML19CS099	Shythya P V	20	7	
27	VML19CS066	Joshua Mathew	23		
28	VML19CS020	Albin Thomas	23		
29	VML19CS105	**Snigdha Sathyanathan(L)**	23		Ms. Diya Rameshan
30	VML19CS033	Antony Thomas	23	8	
31	VML19CS014	Akash Ajith	23		
32	VML19CS090	Sangeeth K	23		
33	VML19CS082	**Sharon Rose Babu(L)**	23		Ms. Rajitha K V
34	VML19CS100	Sidharthan AK	23	9	
35	VML19CS113	Uvais Hassan	23		
36	VML19CS056	**EP Gopika (L)**	23		
37	VML19CS006	Adheena KM	23		Mrs. Divya B
38	VML19CS051	Dheeraj K	23	10	
39	VML19CS027	Anamika Prakash A	22		
40	VML19CS073	Muhsina Musthafa	22		
41	VML19CS025	**Ambili Jacob (L)**	22		Mr.Abhiram P
42	VML19CS087	Rose Mariya Joy	22	11	
43	VML19CS036	Anurag C Ashok	21		
44	VML19CS003	Abhinav c	21		
45	VML19CS018	**Akshay sasi(L)**	21		Ms.Divya K
46	VML19CS082	Rahnas K T	21	12	

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Report Evaluation-Senior faculty member

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
47	VML19CS038	**Arjun KV (L)**	20		
48	VML19CS043	Augustin Robins	20		
49	VML19CS102	Sidharth K V	20		
50	VML19CS041	Aswin Augustinc	20	13	Ms. Nayana Suresh
51	VML19CS109	**Sreehari Jayesh (L)**	21		
52	VML19CS072	Mohammed Razi Riyaz	21		
53	VML19CS077	Nikhil Remesh	21		
54	VML19CS088	Sahad Abdul Rahman	21	14	Mrs.Sreeraji Narayanan
55	VML19CS029	Anjana Suresh	20		
56	VML19CS034	Anumitha S Pradiu	20		
57	VML19CS085	Riya Rose	20		
58	VML19CS115	**V R Arya (L)**	20	15	Ms. Sreelakshmi M

Senior faculty member

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Continuous Evaluation-Guide

Sl. No.	University register number	Name	Project Scheduling & Distribution of Work among Team members 5 Mark	Literature survey 4 Mark	Student's Diary/ Daily Log 7 Mark	Individual Contribution 9 Mark	Completion of the project 5 Mark	Total (30)	Group No.	Guide Signature
1	VML19CS062	Hetheck P V	4	4	7	8	5	28	1	M[illegible] C. M.
2	VML19CS013	Anwar K	5	4	7	9	5	30		
3	VML19CS049	Dennis Benny(L)	5	4	7	9	5	30		
4	VML19CS064	Jestin Raju	4	4	7	8	5	28		
5	VML19CS009	Aditya Tejas(L)	4	4	6	7	5	26	2	Mr. A[illegible]l Latheef
6	VML19CS097	Sharil Shaju	4	4	6	7	5	26		
7	VML19CS045	Berly Xavier	4	4	6	7	5	26		
8	VML19CS060	Haripriya M	5	4	7	8	5	29	3	Mrs. Tintu Devasia
9	VML19CS111	Sruthi P K	5	4	7	8	5	29		
10	VML19CS016	Akshay chandra (L)	4	4	6	8	5	27		
11	VML19CS011	Adwaith Krishna	5	4	7	8	5	29		
12	VML19CS032	Ann Rose Issac	5	4	7	9	4	29	4	Mrs. Dinsha P K
13	VML19CS068	Keerthana K	4	4	7	8	4	27		
14	VML19CS079	V Poornami	5	4	7	8	4	28		
15	VML19CS093	Shaan Thomas(L)	4	4	7	8	4	27		
16	VML19CS092	Shahan Abdulla K	4	4	6	7	5	26	5	Ms. N[illegible] Salam
17	VML19CS070	Manu Mathew Jim (L)	4	4	6	7	5	26		
18	VML19CS076	Nihal V George	4	4	6	7	5	26		
19	VML19CS057	Faez Muhammed M	4	4	6	7	5	26		
20	VML19CS001	Aalap Ragesh	5	4	7	9	4	29	6	Mr Rijin I K
21	VML19CS053	Diya S	5	4	7	9	4	29		
22	VML19CS022	Alemanna Sebastian	5	4	7	9	4	29		
23	VML19CS107	Sona P	5	4	7	9	4	29		

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Sl. No.	University register number	Name	Project Scheduling & Distribution of Work among Team members 5 Mark	Literature survey 4 Mark	Student's Diary/ Daily Log 7 Mark	Individual Contribution 9 Mark	Completion of the project 5 Mark	Total (30)	Group No.	Guide Signature
24	VML19CS004	Abhinay Thomas(L)	5	4	7	9	4	29	7	[signature] 29/4/23 Ms. Jeevala Vijayan
	VML19CS059	Farzan Rahman	4	4	6	8	4	26		
25	VML19CS047	Darshitha K	5	4	7	8	4	28		
26	VML19CS099	Shythya P V	5	4	7	9	4	29		
27	VML19CS066	Joshua Mathew	4	4	6	9	5	28	8	[signature] 29/04/23 Ms. Diya Rameshan
28	VML19CS020	Albin Thomas	4	4	6	9	5	28		
29	VML19CS105	Snigdha Sathyanathan(L)	4	4	6	9	5	28		
30	VML19CS011	Ammy Thomas	4	4	6	9	5	28		
31	VML19CS014	Akash Ajith	4	4	7	9	5	29	9	[signature] 28/4/23 Ms. Rajitha K V
32	VML19CS090	Sangeeth K	4	4	7	9	5	29		
33	VML19CS082	Sharun Rose Babu(L)	4	4	7	9	5	29		
34	VML19CS100	Sidharthan AK	4	4	7	9	5	29		
35	VML19CS113	Uvais Hassan	4	4	7	9	4	28	10	[signature] 2/5/23 Ms. Divya B
36	VML19CS056	EP Gopika (L)	4	4	7	9	4	28		
37	VML19CS008	Adheena KM	4	4	7	9	4	28		
38	VML19CS051	Dheeraj K	4	4	7	9	4	28		
39	VML19CS027	Anamika Prakash A	4	4	7	8	4	27	11	[signature] 28/4/23 Mr. Abhiram P
40	VML19CS073	Mubeena Musthafa	4	4	7	9	4	28		
41	VML19CS023	Ambili Jacob (L)	5	4	7	9	4	29		
42	VML19CS087	Rose Mariya Joy	5	4	7	8	4	28		
43	VML19CS036	Anurag C Ashok	4	4	6	9	4	27	12	[signature] 28/4/2023 Ms. Divya K
44	VML19CS003	Abhinav c	4	4	6	9	4	27		
45	VML19CS018	Akshay sasi(L)	4	4	6	9	4	27		
46	VML19CS082	Raheez K T	4	4	6	8	4	26		

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Continuous Evaluation-Guide

Sl. No.	University register number	Name	Project Scheduling & Distribution of Work among Team members 5 Mark	Literature survey 4 Mark	Student's Diary/ Daily Log 7 Mark	Individual Contribution 9 Mark	Completion of the project 5 Mark	Total (30)	Group No.	Guide Signature
47	VML19CS038	Arjun KV (L)	4	4	6	8	5	27	13	Ms. Nayana Suresh
48	VML19CS043	Augustin Robins	4	4	6	8	5	27		
49	VML19CS102	Sidharth K V	4	4	6	8	5	27		
50	VML19CS041	Aswin Augustine	4	4	6	8	5	27		
51	VML19CS109	Sreehari Jayesh (L)	4	4	5	7	5	25	14	Mrs.Sheeraji Narayanan
52	VML19CS072	Muhammad Razi Riyaz	4	4	5	7	5	25		
53	VML19CS077	Nikhil Ramesh	4	4	5	7	5	25		
54	VML19CS088	Sahal Abdul Rahman	4	4	5	7	5	25		
55	VML19CS020	Anjana Suresh	4	4	6	8	5	27	15	Ms. Sreelakshmi M
56	VML19CS034	Anuvitha S Prabhu	4	4	6	8	5	27		
57	VML19CS085	Riya Rose	4	4	6	8	5	27		
58	VML19CS115	V R Arya (L)	4	4	7	9	5	29		

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Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
1	VML19CS062	Hrithwik P V	24	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	24		
3	VML19CS049	**Dennis Benny(L)**	24		
4	VML19CS064	Jestin Raju	24.		
5	VML19CS009	**Aditya Tejus(L)**	22	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	22		
7	VML19CS045	Berly Xavier	22		
8	VML19CS060	Haripriya M	23	3	29/9/2023 Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K	23		
10	VML19CS016	**Akshay chandra (L)**	23		
11	VML19CS011	Adwaith Krishna	23		
12	VML19CS032	Ann Rose Issac	23	4	29/9/2023 Mrs. Dinsha P K
13	VML19CS068	Keerthana K	23		
14	VML19CS079	V Pournami	23		
15	VML19CS093	**Shani Thomas(L)**	23		
16	VML19CS092	Shahan Abdulla K	23	5	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**	23		
18	VML19CS076	Nihal V George	23		
19	VML19CS057	Faez Muhammed M	23		
20	VML19CS001	Aalap Ragesh	24	6	29/9/2023 Mr Rijin I K
21	VML19CS053	Diya S	24		
22	VML19CS022	Alenteena Sebastian	24		
23	VML19CS107	Sona. P	24		

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CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Guide

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
24	VML19CS004	**Abhincy Thomas(L)**	24	7	Ms.Ujwala Vijayan 28/04/23
	VML19CS059	Farzeen Rahman	24		
25	VML19CS047	Darshitha K	24		
26	VML19CS099	Shythya P V	24		
27	VML19CS066	Joshua Mathew	24	8	Ms. Diya Rameshan 28/04/23
28	VML19CS020	Albin Thomas	24		
29	VML19CS105	**Snigdha Sathyanathan(L)**	24		
30	VML19CS033	Antony Thomas	24		
31	VML19CS014	Akash Ajith	24	9	Ms. Rajitha KV 28/4/23
32	VML19CS090	Sangeeth K	24		
33	VML19CS082	**Sharon Rose Babu(L)**	24		
34	VML19CS100	Sidharthan AK	24		
35	VML19CS113	Uvais Hassan	24	10	Mrs. Divya B 27/5/23
36	VML19CS056	**EP Gopika (L)**	24		
37	VML19CS006	Adheena KM	24		
38	VML19CS051	Dheeraj K	24		
39	VML19CS027	Anamika Prakash A	23	11	Mr.Abhiram P 28/04/23
40	VML19CS073	Muhsina Musthafa	23		
41	VML19CS025	**Ambili Jacob (L)**	23		
42	VML19CS087	Rose Mariya Joy	23		
43	VML19CS036	Anurag C Ashok	24	12	Ms.Divya K 28/4/2023
44	VML19CS003	Abhinav c	24		
45	VML19CS018	**Akshay sasi(L)**	24		
46	VML19CS082	Rahnas K T	24		

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CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Guide

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
47	VML19CS038	**Arjun KV (L)**	23	13	Ms. Nayana Suresh
48	VML19CS043	Augustin Robins	23		
49	VML19CS102	Sidharth K V	23		
50	VML19CS041	Aswin Augustine	23		
51	VML19CS109	**Sreehari Jayesh (L)**	23	14	Mrs.Sreeraji Narayanan
52	VML19CS072	Mohammed Razi Riyaz	23		
53	VML19CS077	Nikhil Remesh	23		
54	VML19CS088	Sahad Abdul Rahman	23		
55	VML19CS029	Anjana Suresh	24	15	Ms. Sreelakshmi
56	VML19CS034	Anumitha S Pradiu	24		
57	VML19CS085	Riya Rose	24		
58	VML19CS115	**V R Arya (L)**	24		

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Second Evaluation-Guide

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 mARK	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. .[CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
1	VML19CS062	Hrithwik P V	7	4	4	4	19	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	8	5	4	4	21		
3	VML19CS049	Dennis Benny(L)	8	5	4	4	21		
4	VML19CS064	Justin Raju	7	4	4	4	19		
5	VML19CS009	Aditya Tejus(L)	7	4	4	4	19	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	7	4	4	4	19		
7	VML19CS045	Berly Xavier	7	4	4	4	19		
8	VML19CS060	Hariprya M	8	4	4	3	19	3	28/4/23 Mrs. Tintu Devasia
9	VML19CS111	Sruthi P K	8	4	4	3	19		
10	VML19CS016	Akshay chandra (L)	8	3	4	3	18		
11	VML19CS011	Adwaith Krishna	8	4	4	3	19		
12	VML19CS032	Ann Rose Issac	8	5	4	4	21	4	29/4/23 Mrs. Dinsha P K
13	VML19CS068	Keerthana K	7	4	4	3	18		
14	VML19CS079	V Pournami	7	4	4	3	18		
15	VML19CS093	Shani Thomas(L)	7	4	4	4	19		
16	VML19CS092	Shahan Abdulla K	8	3	4	4	19	5	28/4/23 Ms. Najira Salam
17	VML19CS070	Manu Mathew Jim (L)	8	4	4	3	19		
18	VML19CS076	Nihal V George	8	4	4	4	20		
19	VML19CS057	Faez Muhammed M	8	3	4	4	19		

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CSD416: PROJECT PHASE 2 CSA

Second Evaluation-Guide

Sl.No.	University register number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 mARK	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. [CO4] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
20	VML19CS001	Ashly Rajesh	9	5	5	4	23		
21	VML19CS053	Diya S	9	5	5	4	23		
22	VML19CS022	Aiswarya Sebastian	9	5	5	4	23	6	Mr Rajin P K
23	VML19CS107	Sona P	8	5	4	4	21		
24	VML19CS004	Abhinav Thomas(L)	8	3	4	4	19		
	VML19CS059	Farzeen Rahman	8	4	4	4	20	7	Ms Ujwala Vijayan
25	VML19CS047	Darshitha K	8	5	4	4	21		
26	VML19CS099	Shythya P V	9	5	4	5	23		
27	VML19CS066	Joshua Mathew	9	5	4	5	23		
28	VML19CS020	Albin Thomas	9	5	4	5	23		
29	VML19CS105	Snigdha Sadasanathan(L)	9	5	4	5	23	8	Ms. Diya Ramesh
30	VML19CS033	Antony Thomas	9	5	5	4	23		
31	VML19CS014	Akash Ajith	9	5	5	4	23		
32	VML19CS090	Sangeeth K	9	5	5	4	23		
33	VML19CS082	Sharon Rose Babu(L)	9	5	5	4	23	9	Ms. Rajitha K V
34	VML19CS100	Sidharthan AK	8	5	5	5	23		
35	VML19CS113	Uvais Hassan	9	5	5	5	24		
36	VML19CS056	EP Gopika (L)	9	5	5	5	22		
37	VML19CS006	Adheena KM	8	4	5	5	22	10	Mrs. Divya B
38	VML19CS051	Dheeraj K	8	4	5	5	22		

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CSD416: PROJECT PHASE 2 CSA
Second Evaluation-Guide

Sl. No.	University register number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 mARK	Involvement of individual members [CO3] [Individual Assessment] 5 Mark	Results and inferences upon execution [CO8] [Group Assessment] 5 Mark	Documentation and presentation. [CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
39	VML19CS077	Anamika Prakash A	8	5	5	4	22		
40	VML19CS073	Mahsuma Musthafa	8	5	5	4	22		
41	VML19CS025	Ambili Jacob (L)	8	5	5	4	22		
42	VML19CS087	Rose Mariya Joy	8	5	5	4	22	11	Mr Abhiram P
43	VML19CS056	Anurag C Ashok	8	5	6	5	23		
44	VML19CS093	Abhinav c	8	4	5	4	21		
45	VML19CS018	Akshay anil(L)	8	5	6	4	22		
46	VML19CS082	Rahman K T	8	4	5	4	21	12	Ms Divya K
47	VML19CS038	Arjun KV (L)	8	4	6	4	21		
48	VML19CS043	Augustin Rubin	8	4	6	4	21		
49	VML19CS102	Sidharth K V	8	4	6	4	21		
50	VML19CS041	Aswin Augustine	8	4	5	4	21	13	Ms Nayana [illegible]
51	VML19CS109	Sreehari Jayesh (L)	8	4	5	4	21		
52	VML19CS072	Mohammed Razi Riyaz	8	4	5	4	21		
53	VML19CS077	Nikhil Remesh	8	4	5	4	21		
54	VML19CS088	Sahad Abdul Rahman	8	4	5	4	21	14	[illegible] Narayanan
55	VML19CS029	Anjana Suresh	8	4	5	4	21		
56	VML19CS034	Anunitha S Pradip	8	4	5	4	21		
57	VML19CS085	Riya Rose	8	4	5	4	21		
58	VML19CS115	V R Arya (L)	9	5	5	4.5	24	15	Ms Sreelakshmi M

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Second Evaluation-Project Coordinator

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 Mark	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. .[CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
1	VML19CS062	Hrithwik P V	7	4	4	3	18	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	8	5	4	4	21		
3	VML19CS049	**Dennis Benny(L)**	8	5	4	4	21		
4	VML19CS064	Jestin Raju	7	4	4	3	18		
5	VML19CS009	**Aditya Tejus(L)**	8	5	4	4	21	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	8	5	4	3	20		
7	VML19CS045	Berly Xavier	8	5	4	4	21		
8	VML19CS060	Haripriya M	8	4	4	3	20	3	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K	8	5	4	3	20		
10	VML19CS016	**Akshay chandra (L)**	7	5	4	2	18		
11	VML19CS011	Adwaith Krishna	7	4	4	2	17		
12	VML19CS032	Ann Rose Issac	8	5	4	4	21	4	Mrs. Dinsha P K
13	VML19CS068	Keerthana K	8	5	4	4	21		
14	VML19CS079	V Pournami	8	5	4	4	21		
15	VML19CS093	**Shani Thomas(L)**	8	5	4	4	21		
16	VML19CS092	Shahan Abdulla K	7	4	4	3	18	5	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**	8	5	4	4	21		
18	VML19CS076	Nihal V George	8	5	4	4	21		
19	VML19CS057	Faez Muhammed M	7	4	4	3	18		

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Second Evaluation-Project Coordinator

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 Mark	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. [CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
20	VML19CS001	Aalap Rajesh	9	5	5	4	23		
21	VML19CS053	Diya S	9	5	5	4	23		
22	VML19CS022	Alenteena Sebastian	9	5	5	4	23	6	Mr Rijin I K
23	VML19CS107	Sona. P	9	5	5	4	23		
24	VML19CS004	Abhincy Thomas(L)	10	5	4	4	23		
	VML19CS059	Farzeen Rahman	8	4	4	4	24		
25	VML19CS047	Darshitha K	8	4	4	4	24		Ms.Ujwala Vijayan
26	VML19CS099	Sivythya P V	8	4	4	4	24	7	
27	VML19CS066	Joshua Mathew	10	5	5	4	24		
28	VML19CS020	Albin Thomas	9	5	5	4	23		
29	VML19CS105	Saigdha Sathyanathanil.s.	9	5	5	4	23		Ms. Diya Ramesham
30	VML19CS033	Antony Thomas	9	5	5	4	23	8	
31	VML19CS014	Akash Ajith	10	5	5	4	24		
32	VML19CS090	Sangeeth K	9	5	5	4	23		
33	VML19CS082	Sharon Rose Rabel(L)	9	5	5	4	23		Ms. Rajitha K V
34	VML19CS100	Sidharthan AK	9	5	5	4	23	9	
35	VML19CS113	Uvais Hassan	10	5	5	4	24		
36	VML19CS056	EP Gopika (L)	9	5	5	4	23		
37	VML19CS006	Adheena KM	9	5	5	4	23		
38	VML19CS051	Dheeraj K	9	5	5	4	23	10	Mrs. Divya B

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Second Evaluation-Project Coordinator

Sl. No.	University registrar number	Name	Application of engineering knowledge [CO1] [Individual Assessment] 10 Mark	Involvement of individual members [CO3] [Individual Assessment 5 Mark	Results and inferences upon execution [CO5] [Group Assessment] 5 Mark	Documentation and presentation. .[CO6] [Individual assessment] 5 Mark	Total (25)	Group No.	Guide Signature
39	VML19CS027	Anamika Prakash A	8	5	5	4	22	11	Mr.Abhiram P
40	VML19CS073	Muhsina Musthafa	8	5	5	4	22		
41	VML19CS025	Ambili Jacob (L)	8	5	5	4	22		
42	VML19CS087	Rose Mariya Joy	8	5	5	4	22		
43	VML19CS036	Anurag C Ashok	7	4	4	4	19	12	Ms.Divya K
44	VML19CS003	Abhinav c	7	4	4	4	19		
45	VML19CS018	Akshay sasi(L)	8	5	4	4	21		
46	VML19CS082	Rahnas K T	7	4	4	4	19		
47	VML19CS038	Arjun KV (L)	8	4	5	4	21	13	Ms. Nayana Suresh
48	VML19CS043	Augustin Robins	8	4	5	4	21		
49	VML19CS102	Sidharth K V	8	4	5	4	21		
50	VML19CS041	Aswin Augustine	8	4	5	4	21		
51	VML19CS109	Sreehari Jayesh (L)	8	4	5	4	21	14	Mrs.Sreeraji Narayanan
52	VML19CS072	Mohammed Razi Riyaz	8	4	5	4	21		
53	VML19CS077	Nikhil Remesh	8	4	5	4	21		
54	VML19CS088	Sahad Abdul Rahman	8	4	5	4	21		
55	VML19CS029	Anjana Suresh	8	4	5	4	21	15	Ms. Sreelakshmi M
56	VML19CS034	Anumitha S Pradiu	8	4	5	4	22		
57	VML19CS085	Riya Rose	8	5	5	4	24		
58	VML19CS115	V R Arya (L)	10	5	5				

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CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Project coordinator

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
1	VML19CS062	Hrithwik P V	22	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	22		
3	VML19CS049	**Dennis Benny(L)**	22		
4	VML19CS064	Jestin Raju	22		
5	VML19CS009	**Aditya Tejus(L)**	19	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	19		
7	VML19CS045	Berly Xavier	19		
8	VML19CS060	Haripriya M	19	3	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K	19		
10	VML19CS016	**Akshay chandra (L)**	19		
11	VML19CS011	Adwaith Krishna	19		
12	VML19CS032	Ann Rose Issac	20	4	Mrs. Dinsha P K
13	VML19CS068	Keerthana K	20		
14	VML19CS079	V Pournami	20		
15	VML19CS093	**Shani Thomas(L)**	20		
16	VML19CS092	Shahan Abdulla K	22	5	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**	22		
18	VML19CS076	Nihal V George	22		
19	VML19CS057	Faez Muhammed M	22		
20	VML19CS001	Aalap Ragesh	24	6	Mr Rijin I K
21	VML19CS053	Diya S	24		
22	VML19CS022	Alenteena Sebastian	24		
23	VML19CS107	Sona. P	24		

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CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Project coordinator

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
24	VML19CS004	**Abhincy Thomas(L)**	24		
	VML19CS059	Farzeen Rahman	24		
25	VML19CS047	Darshitha K	24		
26	VML19CS099	Shythya P V	24	7	Ms.Ujwala Vijayan
27	VML19CS066	Joshua Mathew	24		
28	VML19CS020	Albin Thomas	24		
29	VML19CS105	**Snigdha Sathyanathan(L)**	24		
30	VML19CS033	Antony Thomas	24	8	Ms. Diya Rameshan
31	VML19CS014	Akash Ajith	24		
32	VML19CS090	Sangeeth K	24		
33	VML19CS082	**Sharon Rose Babu(L)**	24		
34	VML19CS100	Sidharthan AK	24	9	Ms. Rajitha K V
35	VML19CS113	Uvais Hassan	24		
36	VML19CS056	**EP Gopika (L)**	24		
37	VML19CS006	Adheena KM	24		
38	VML19CS051	Dheeraj K	24	10	Mrs. Divya B
39	VML19CS027	Anamika Prakash A	22		
40	VML19CS073	Muhsina Musthafa	22		
41	VML19CS025	**Ambili Jacob (L)**	22		
42	VML19CS087	Rose Mariya Joy	22	11	Mr.Abhiram P
43	VML19CS036	Anurag C Ashok	20		
44	VML19CS003	Abhinav c	20		
45	VML19CS018	**Akshay sasi(L)**	20		
46	VML19CS082	Rahnas K T	20	12	Ms.Divya K

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CSD416: PROJECT PHASE 2 CSA

Report Evaluation-Project **coordinator**

Sl. No.	University registrar number	Name	Report (25)	Group No.	Guide Signature
47	VML19CS038	**Arjun KV (L)**	22		
48	VML19CS043	Augustin Robins	22		
49	VML19CS102	Sidharth K V	22		Ms. Nayana Suresh
50	VML19CS041	Aswin Augustine	22	13	
51	VML19CS109	**Sreehari Jayesh (L)**	20		
52	VML19CS072	Mohammed Razi Riyaz	20		
53	VML19CS077	Nikhil Remesh	20		Mrs.Sreeraji Narayanan
54	VML19CS088	Sahad Abdul Rahman	20	14	
55	VML19CS029	Anjana Suresh	20		
56	VML19CS034	Anumitha S Pradiu	20		
57	VML19CS085	Riya Rose	20		Ms. Sreelakshmi M
58	VML19CS115	**V R Arya (L)**	20	15	

Project coordinator

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VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

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CSD416: PROJECT PHASE II FINAL EVALUATION & CST404 COMPREHENSIVE COURSE VIVA SCHEDULE (19-06-23 TO 23-06-23)

S8 CSE A(2019-2023 BATCH)

Sl. No.	University registrar number	Name	Group No.	Time	Guide
1	VML19CS062	Hrithwik P V	1	19-06-23 09:00 am-10:30 am	Ms. Rahna C. M.
2	VML19CS013	Aiswar K			
3	VML19CS049	**Dennis Benny(L)**			
4	VML19CS064	Jestin Raju			
5	VML19CS009	**Aditya Tejus(L)**	2	19-06-23 10:30 am -12:00 pm	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju			
7	VML19CS045	Berly Xavier			
8	VML19CS060	Haripriya M	3	19-06-23 01:00 pm-02:30 pm	Mrs.Tintu Devasia
9	VML19CS111	Sruthi P K			
10	VML19CS016	**Akshay chandra (L)**			
11	VML19CS011	Adwaith Krishna			
12	VML19CS032	Ann Rose Issac	4	20-06-23 09:00 am- 10:30 am	Mrs. Dinsha P K
13	VML19CS068	Keerthana K			
14	VML19CS079	V Pournami			
15	VML19CS093	**Shani Thomas(L)**			
16	VML19CS092	Shahan Abdulla K	5	20-06-23 10:30 am -12:00 pm	Ms. Najira Salam
17	VML19CS070	**Manu Mathew Jiss (L)**			
18	VML19CS076	Nihal V George			
19	VML19CS057	Faez Muhammed M			
20	VML19CS001	**Aalap Ragesh(L)**	6	20-06-23 01:00 pm -02:30 pm	Mr Rijin I K
21	VML19CS053	Diya S			
22	VML19CS022	Alenteena Sebastian			
23	VML19CS107	Sona. P			

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24	VML19CS004	**Abhincy Thomas(L)**			
25	VML19CS059	Farzeen Rahman		21-06-23	
26	VML19CS047	Darshitha K			
27	VML19CS099	Shythya P V	7	09:00 am - 10:30 am	Ms.Ujwala Vijayan
28	VML19CS066	Joshua Mathew			
29	VML19CS020	Albin Thomas		21-06-23	
30	VML19CS105	**Snigdha Sathyanatha n(L)**			
31	VML19CS033	Antony Thomas	8	10:30 am - 12:00 pm	Ms. Diya Rameshan
32	VML19CS014	Akash Ajith			
33	VML19CS090	Sangeeth K		21-06-23	
34	VML19CS082	**Sharon Rose Babu(L)**			
35	VML19CS100	Sidharthan AK	9	01:00 pm - 02:30 pm	Ms. Rajitha K V
36	VML19CS113	Uvais Hassan			
37	VML19CS056	**EP Gopika (L)**		22-06-23	
38	VML19CS006	Adheena KM			
39	VML19CS051	Dheeraj K	10	09:00 am - 10:30 am	Mrs. Divya B
40	VML19CS027	Anamika Prakash A			
41	VML19CS073	Muhsina Musthafa		22-06-23	
42	VML19CS025	**Ambili Jacob (L)**			
43	VML19CS087	Rose Mariya Joy	11	10:30am-12:00 pm	Mr.Abhiram P
44	VML19CS036	Anurag C Ashok			
45	VML19CS003	Abhinav c		22-06-23	
46	VML19CS018	**Akshay sasi(L)**			
47	VML19CS082	Rahnas K T	12	01:00 pm - 02:30 pm	Ms.Divya K
48	VML19CS038	**Arjun KV (L)**			
49	VML19CS043	Augustin Robins		23-06-23	
50	VML19CS102	Sidharth K V			
51	VML19CS041	Aswin Augustine	13	09:00 am - 10:30 am	Ms. Nayana Suresh

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52	VML19CS109	**Sreehari Jayesh (L)**			
53	VML19CS072	Mohammed Razi Riyaz		23-06-23	
54	VML19CS077	Nikhil Remesh			
55	VML19CS088	Sahad Abdul Rahman	14	10:30am-12:00 pm	Mrs.Sreeraji Narayanan
56	VML19CS029	Anjana Suresh			
57	VML19CS060	Anumitha S Pradiu		23-06-23	
58	VML19CS085	Riya Rose			Ms. Sreelakshmi M
59	VML19CS115	**V R Arya (L)**	15	01:00 pm - 02:30 pm	

Co-ordinator

HOD

13/6/23

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VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
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NAAC ACCREDITED

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VJ/CSE/SP/2023/05 09.06.2023

OFFICE ORDER

Dear Sir/Madam,

Sub: VIII Sem. B. Tech Degree CSD416 PROJECT PHASE II ASSESSMENT BOARD FOR FINAL EVALUATION CSE A (2019-23 Batch)

The following Assessment board is hereby constituted for the evaluation of Eight semester B.Tech Degree CSD 416 Project Phase II final evaluation. Kindly make it convenient to conduct evaluation of the Project Phase II as per the schedule. Expecting your cooperation.

Assessment Board details for Project Phase II final evaluation are given below:

Members:

Ms. Amitha I C (External Expert.)

Mr. Rijin I K (Project Coordinator.)

Mr. Manoj K C (Senior faculty from ECE.)

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Ph: 0460 2212240, 2213399 E-mail: office@vjec.ac.in Website: www.vjec.ac.in

EVALUATION RUBRICS for PROJECT Phase II: Final Evaluation

Sl. No.	Parameters	Marks	Poor	Fair	Very Good	Outstanding
2-j	Engineering knowledge. [CO1] [Group Assessment]	10	The team does not show any evidence of applying engineering knowledge on the design and the methodology adopted.	The team is able to show some of the design procedure and the methodologies adopted, but not in a comprehensive manner.	The team is able to show evidence of application of engineering knowledge in the design and development of the project to good extent. There is scope for improvement.	Excellent knowledge in design procedure and its adaptation. The team is able to apply knowledge from engineering domains to the problem and develop an excellent solution.

			(0 – 3 Marks)	(4 – 6 Marks)	(7-9 Marks)	(10 Marks)
2-k	Relevance of the project with respect to societal and/or industrial needs. [Group Assessment] [CO2]	5	The project as a whole do not have any societal / industrial relevance at all.	The project has some relevance with respect to social and/or industrial application. The team has however made not much effort to explore further and make it better.	The project is relevant to the society and/or industry. The team is mostly successful in translating the problem into an engineering specification and managed to solve much of it.	The project is exceptionally relevant to society and/or industry. The team has made outstanding contribution while solving the problem in a professional and/ or ethical manner.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

2-I	Innovation / novelty / Creativity [CO5] [Group Assessment]	5	The project is not addressing any useful requirement. The idea is evolved into a non-implementable one. The work presented so far is lacking any amount of original work by the team.	Some of the aspects of the proposed idea appears to be practical. There is still lack of originality in the work done. The project is a regularly done theme/topic without any freshness in terms of specifications, features, and/ or improvements.	Good evidence of an implementable project. There is some evidence for the originality of the work done by the team. There is fresh specifications/ features/improvements suggested by the team. The team is doing a design from fundamental principles, and there is some independent learning and	The project has evolved into incorporating an outstandingly novel idea. Original work which is not yet reported anywhere else. Evidence for ingenious way of innovation which is also implementable. Could be a patentable publishable work.

					engineering ingenuity. Could be translated into a product / process if more work is done.	
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
2-m	Quality of results /conclusions / solutions. [CO1] [Group Assessment]	10	None of the expected outcomes are achieved. The team is unable to derive any inferences on the failures/issues observed. Any kind of observations or	Only a few of the expected outcomes are achieved. A few inferences are made on the observed failures/issues. No further work suggested.	Many of the expected outcomes are achieved. Many observations and inferences are made, and attempts to identify the issues are done. Some	Most of the stated outcomes are met. Extensive studies are done and inferences drawn. Most of the failures are addressed and solutions suggested. Clear

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			studies is not made.		suggestions are made for further work.	and valid suggestions made for further work.
			(0 – 3 Marks)	(4 – 6 Marks)	(7-9 Marks)	(10 Marks)
2-n	Presentation - Part I Preparation of slides. [CO6] [Group Assessment].	5	The presentation slides are shallow and in a clumsy format. It does not follow proper organization.	Presentation slides follow professional style formats to some extent. However, its organization is not very good. Language needs to be improved. All references are not cited properly, or	Presentation slides follow a good style format and there are only a few issues. Organization of the slides is good. Most of references are cited properly. The flow is good and team	The presentation slides are exceptionally good. Neatly organized. All references cited properly. Diagrams/Figures, Tables and equations are properly numbered, and l i s ted. Results/

			acknowledged. Presentation slides needs to be more professional.	presentation is neatly organized. Some of the results are not clearly shown. There is room for improvement.	inferences clearly highlighted and readable.
		(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)
Presentation - PartII: Individual Communication [CO6] [Individual Assessment].	5	The student is not communicating properly. Poor response to questions.	The student is able to explain some of the content. The student requires a lot of prompts to get to the idea. There are language issues.	Good presentation/ communication by the student. The student is able to explain most of the content very well. There are however, a few areas where the	Clear and concise communication exhibited by the student. The presentation is outstanding. Very confident and tackles all the questions without

					student shows lack of preparation. Language is better.	hesitation. Exceptional traits of communicator.
			(0 – 1 Marks)	(2 – 3 Marks)	(4 Marks)	(5 Marks)

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Distributions:

1. Members concerned

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CSD416: PROJECT PHASE II FINAL EVALUATION (19-06-23 TO 23-06-23)

BATCH-A

Sl. No.	University registrar number	Name	Engineering knowledge. [CO1] [Group Assessment] 10 Mark	Relevance of the project with respect to societal and/or industrial needs. [CO2] [Group Assessment] 5 Mark	Innovation / novelty / Creativity [CO5] [Group Assessment] 5 Mark	Quality of results / conclusions / solutions. [CO1] [Group Assessment] 10 Mark	Presentation - Part I Preparation of slides. [CO6] [Group Assessment] 5 Mark	Presentation - Part II: Individual Communication [CO6] [Individual Assessment] 5 Mark	Total 40 Mark	Group No.	Guide
1	VML19CS062	Hrithwik P V	5	3	3	5	3	1	20		
2	VML19CS013	Aiswar K	5	3	3	5	3	3	22		
3	VML19CS049	**Dennis Benny(L)**	5	3	3	5	3	4	23		
4	VML19CS064	Jestin Raju	5	3	3	5	3	1	20	1	Ms. Rahna C. M.
5	VML19CS009	**Aditya Tejus(L)**	5	3	3	5	3	4	23		
6	VML19CS097	Shinil Shaju	5	3	3	5	3	2	21		
7	VML19CS045	Berly Xavier	5	3	3	5	3	1	20	2	Mr. Abdul Latheef

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8	VML19CS060	Haripriya M	5	3	3	5	3	3	22		
9	VML19CS111	Sruthi P K	5	3	3	5	3	3	22		
10	VML19CS016	**Akshay chandra (L)**	5	3	3	5	3	3	22		
11	VML19CS011	Adwaith Krishna	5	3	3	5	3	3	22	3	Mrs.Tintu Devasia
12	VML19CS032	Ann Rose Issac	9	4	4	9	5	5	36		
13	VML19CS068	Keerthana K	9	4	4	9	5	3	34		
14	VML19CS079	V Pournami	9	4	4	9	5	4	35		
15	VML19CS093	**Shani Thomas(L)**	9	4	4	9	5	3	34	4	Mrs. Dinsha P K
16	VML19CS092	Shahan Abdulla K	6	3	3	6	3	2	23		
17	VML19CS070	**Manu Mathew Jiss (L)**	6	3	3	6	3	3	24		
18	VML19CS076	Nihal V George	6	3	3	6	3	3	24		
19	VML19CS057	Faez Muhammed M	6	3	3	6	3	2	23	5	Ms. Najira Salam
20	VML19CS001	Aalap Ragesh	9	4	5	9	5	5	37		
21	VML19CS053	Diya S	9	4	5	9	5	5	37		
22	VML19CS022	Alenteena Sebastian	9	4	5	9	5	3	35		
23	VML19CS107	Sona. P	9	4	5	9	5	4	36	6	Mr Rijin I K

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24	VML19CS004	Abhincy Thomas(L)	8	4	3	7	4	4	30			
25	VML19CS059	Farzeen Rahman	8	4	3	7	4	3	29			
26	VML19CS047	Darshitha K	8	4	3	7	4	2	28			
27	VML19CS099	Shythya P V	8	4	3	7	4	3	29	7	Ms.Ujwala Vijayan	
28	VML19CS066	Joshua Mathew	10	4	5	9	4	5	37			
29	VML19CS020	Albin Thomas	10	4	5	9	4	4	36			
30	VML19CS105	**Snigdha Sathyanathan(L)**	10	4	5	9	4	5	37			
31	VML19CS033	Antony Thomas	10	4	5	9	4	5	37	8	Ms. Diya Rameshan	
32	VML19CS014	Akash Ajith	10	5	5	10	4	5	39			
33	VML19CS090	Sangeeth K	10	5	5	10	4	5	39			
34	VML19CS082	**Sharon Rose Babu(L)**	10	5	5	10	4	5	39			
35	VML19CS100	Sidharthan AK	10	5	5	10	4	5	39	9	Ms. Rajitha K V	
36	VML19CS113	Uvais Hassan	9	5	4	9	4	4	35			
37	VML19CS056	**EP Gopika (L)**	9	5	4	9	4	4	35			
38	VML19CS006	Adheena KM	9	5	4	9	4	4	35			
[illegible]	VML19CS051	Dheeraj K	9	5	4	9	4	4	35	10	Mrs. Divya B	

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			10	5	5	10	5	5	40		
40	VML19CS027	Anamika Prakash A	7	4	4	8	4	3	30		
41	VML19CS073	Muhsina Musthafa	7	4	4	8	4	3	30		
42	VML19CS025	**Ambili Jacob (L)**	7	4	4	8	4	3	30		
43	VML19CS087	Rose Mariya Joy	7	4	4	8	4	3	30	11	Mr.Abhiram P
44	VML19CS036	Anurag C Ashok	7	4	4	8	4	3	30		
45	VML19CS003	Abhinav c	7	4		8	4	3	30		
46	VML19CS018	**Akshay sasi(L)**	7	4	4	8	4	3	30		
47	VML19CS082	Rahnas K T	7	4	4	8	4	3	30	12	Ms.Divya K
48	VML19CS038	**Arjun KV (L)**	7	4	4	7	4	2	28		
49	VML19CS043	Augustin Robins	7	4	4	7	4	2	28		
50	VML19CS102	Sidharth K V	7	4	4	7	4	2	28		
51	VML19CS041	Aswin Augustine	7	4	4	7	4	1	27	13	Ms. Nayana Suresh
52	VML19CS109	**Sreehari Jayesh (L)**	7	4	4	8	4	3	30		
53	VML19CS072	Mohammed Razi Riyaz	7	4	4	8	4	3	30		
54	VML19CS077	Nikhil Remesh	7	4	4	8	4	3	30		
55	VML19CS088	Sahad Abdul Rahman	7	4	4	8	4	3	30	14	Mrs.Sreeraji Narayanan

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56	VML19CS02 9	Anjana Suresh	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
57	VML19CS03 4	Anumitha S Pradiu	7	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
58	VML19CS08 5	Riya Rose	7	4	4	[illegible]	[illegible]	[illegible]	[illegible]		
59	VML19CS11 5	V R Arya (L)	7	4	4	[illegible]	[illegible]	[illegible]	[illegible]		

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CSD416: PROJECT PHASE II FINAL EVALUATION (19-06-23 TO 23-06-23)

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BATCH-A

Sl. No.	University registrar number	Name	Engineering knowledge. [CO1] [Group Assessment] 10 Mark	Relevance of the project with respect to societal and/or industrial needs. [CO2] [Group Assessment] 5 Mark	Innovation / novelty / Creativity [CO5] [Group Assessment] 5 Mark	Quality of results / conclusions / solutions. [CO1] [Group Assessment] 10 Mark	Presentation - Part I Preparation of slides. [CO6] [Group Assessment] 5 Mark	Presentation - Part II: Individual Communication [CO6] [Individual Assessment] 5 Mark	Total 40 Mark	Group No.	Guide
1	VML19CS062	Hrithwik P V	5	2.5	2.5	5	2.5	2.5	20	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	6	2.5	2.5	5	3	3	22		
3	VML19CS049	Dennis Benny(L)	6	2.5	2.5	5	3	4	23		
4	VML19CS064	Jestin Raju	5	2.5	2.5	5	2.5	2.5	20		
5	VML19CS009	Aditya Tejus(L)	6	3	2	6	2	3	22	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	6	3	2	6	2	2	21		
7	VML19CS045	Berly Xavier	6	3	2	6	2	2	21		

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			10	5	5	10	5	5	40		
8	VML19CS060	Haripriya M	5	3	2·5	5	2·5	2	20		
9	VML19CS111	Sruthi P K	5	3	2·5	5	2·5	4	22		
10	VML19CS016	**Akshay chandra (L)**	5	3	2·5	5	2·5	4	22		
11	VML19CS011	Adwaith Krishna	5	3	2·5	5	2·5	3	21	3	Mrs.Tintu Devasia
12	VML19CS032	Ann Rose Issac	8	4	4	8	4	5	33		
13	VML19CS068	Keerthana K	8	4	4	8	4	2	30		
14	VML19CS079	V Pournami	8	4	4	8	4	3	31		
15	VML19CS093	**Shani Thomas(L)**	8	4	4	8	4	3	31	4	Mrs. Dinsha P K
16	VML19CS092	Shahan Abdulla K	6	3	2	5	3	3	22		
17	VML19CS070	**Manu Mathew Jiss (L)**	6	3	2	5	3	4	23		
18	VML19CS076	Nihal V George	6	3	2	5	3	4	23		
19	VML19CS057	Facz Muhammed M	6	3	2	5	3	2	21	5	Ms. Najira Salam
20	VML19CS001	Aalap Ragesh	8	4	4	8	4	4	32		
21	VML19CS053	Diya S	8	4	4	8	4	5	33		
22	VML19CS022	Alenteena Sebastian	8	4	4	8	4	2	30		
23	VML19CS107	Sona. P	8	4	4	8	4	4	32	6	Mr Rijin I K

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			10	5	5	10	5	5	40		
24	VML19CS004	**Abhincy Thomas(L)**	7	3	3	7	4	4	28		
25	VML19CS059	Farzeen Rahman	7	3	3	7	4	4	28		
26	VML19CS047	Darshitha K	7	3	3	7	4	2	26		
27	VML19CS099	Shythya P V	7	3	3	7	4	4	28	7	Ms.Ujwala Vijayan
28	VML19CS066	Joshua Mathew	10	4.5	4.5	10	5	4	38		
29	VML19CS020	Albin Thomas	10	4.5	4.5	10	5	3	37		
30	VML19CS105	**Snigdha Sathyanathan(L)**	10	4.5	4.5	10	5	4	38		
31	VML19CS033	Antony Thomas	10	4.5	4.5	10	5	4	38	8	Ms. Diya Rameshan
32	VML19CS014	Akash Ajith	9	4	4	9	5	4	35		
33	VML19CS090	Sangeeth K	9	4	4	9	5	3	34		
34	VML19CS082 095	**Sharon Rose Babu(L)**	9	4	4	9	5	5	36		
35	VML19CS100	Sidharthan AK	9	4	4	9	5	4	35	9	Ms. Rajitha K V
36	VML19CS113	Uvais Hassan	8	4	4	8	4	4	32		
37	VML19CS056	**EP Gopika (L)**	8	4	4	8	4	4	32		
38	VML19CS006	Adheena KM	8	4	4	8	4	2	30		
39	VML19CS051	Dheeraj K	8	4	4	8	4	2	30	10	Mrs. Divya B

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			10	5	5	10	5	5	40		
40	VML19CS027	Anamika Prakash A	8	4	4	8	4	5	33		
41	VML19CS073	Muhsina Musthafa	8	4	4	8	4	4	32		
42	VML19CS025	**Ambili Jacob (L)**	9	4	4	8	4	4	33		
43	VML19CS087	Rose Mariya Joy	8	4	4	8	4	4	32	11	Mr.Abhiram P
44	VML19CS036	Anurag C Ashok	6	4	4	6	4	3	27		
45	VML19CS003	Abhinav c	6	4	4	6	4	2	26		
46	VML19CS018	**Akshay sasi(L)**	6	4	4	6	4	5	29		
47	VML19CS082	Rahnas K T	6	4	4	6	4	2	26	12	Ms.Divya K
48	VML19CS038	**Arjun KV (L)**	6+1	4	4	6+1	4	3	29		
49	VML19CS043	Augustin Robins	6+1	4	4	6+1	4	4	30		
50	VML19CS102	Sidharth K V	6+1	4	4	6+1	4	4	30		
51	VML19CS041	Aswin Augustine	6+1	4	4	6+1	4	3	29	13	Ms. Nayana Suresh
52	VML19CS109	**Sreehari Jayesh (L)**	7	4	3	6	4	4	29		
53	VML19CS072	Mohammed Razi Riyaz	7	4	4	6	4	5	30		
54	VML19CS077	Nikhil Remesh	7	4	4	6	4	3	28		
55	VML19CS088	Sahad Abdul Rahman	7	4	4	6	4	3	28	14	Mrs.Sreeraji Narayanan

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56	VML19CS029	Anjana Suresh	7	4	4	6	4	2	27		
57	VML19CS034	Anumitha S Pradiu	7	4	4	6	4	3	28		
58	VML19CS085	Riya Rose	7	4	4	6	4	2	27		
59	VML19CS115	V R Arya (L)	7	4	4	4	4	5	30	15	Ms. Sreelakshmi M

Expert from academic

23/6/23

VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

DEPARTMENT OF CSE

CSD416: PROJECT PHASE II FINAL EVALUATION (19-06-23 TO 23-06-23)

BATCH-A

Sl. No.	University registrar number	Name	Engineering knowledge. [CO1] [Group Assessment] 10 Mark	Relevance of the project with respect to societal and/or industrial needs. [CO2] [Group Assessment] 5 Mark	Innovation / novelty / Creativity [CO5] [Group Assessment] 5 Mark	Quality of results / conclusions / solutions. [CO1] [Group Assessment] 10 Mark	Presentation - Part I Preparation of slides. [CO6] [Group Assessment] 5 Mark	Presentation - Part II: Individual Communication [CO6] [Individual Assessment] 5 Mark	Total 40 Mark	Group No.	Guide
1	VML19CS062	Hrithwik P V	5	3	3	5	3	3	21	1	Ms. Rahna C. M.
2	VML19CS013	Aiswar K	6	4	3	6	3	3	25		
3	VML19CS049	Dennis Benny(L)	7	5	3	7	4	4	30		
4	VML19CS064	Jestin Raju	4	3	3	4	3	3	20		
5	VML19CS009	Aditya Tejus(L)	5	3	3	5	3	5	24	2	Mr. Abdul Latheef
6	VML19CS097	Shinil Shaju	5	2	2	5	3	5	22		
	VML19CS045	Berly Xavier	5	3	3	5	3	3	21		

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8	VML19CS060	Haripriya M	7	3	3	7	3	3	26		
9	VML19CS111	Sruthi P K	8	3	3	7	3	3	27		
10	VML19CS016	**Akshay chandra (L)**	6	3	3	6	3	3	24		
11	VML19CS011	Adwaith Krishna	6	3	3	6	3	3	24	3	Mrs.Tintu Devasia
12	VML19CS032	Ann Rose Issac	9	4	4	8	4	4	33		
13	VML19CS068	Keerthana K	8	4	4	8	3	3	30		
14	VML19CS079	V Pournami	8	4	4	8	3	3	30		
15	VML19CS093	**Shani Thomas(L)**	9	4	4	8	4	3	32	4	Mrs. Dinsha P K
16	VML19CS092	Shahan Abdulla K	7	3	3	7	4	3	27		
17	VML19CS070	**Manu Mathew Jiss (L)**	7	3	3	6	4	4	~~25~~ 27		
18	VML19CS076	Nihal V George	6	3	3	7	3	3	25		
19	VML19CS057	Faez Muhammed M	6	3	3	6	3	3	24	5	Ms. Najira Salam
20	VML19CS001	Aalap Ragesh	9	~~5~~	~~5~~	9	5	5	38		
21	VML19CS053	Diya S	9	4	4	9	5	5	36		
22	VML19CS022	Alenteena Sebastian	8	4	4	9	5	5	35		
23	VML19CS107	Sona. P	9	4	4	9	5	5	36	6	Mr Rijin I K

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24	VML19CS004	Abhincy Thomas(L)	8	3	4	8	4	4	30			
25	VML19CS059	Farzeen Rahman	7	3	4	7	4	4	28			
26	VML19CS047	Darshitha K	7	3	4	7	4	4	28			
27	VML19CS099	Shythya P V	7	3	4	8	4	4	29	7		Ms.Ujwala Vijayan
28	VML19CS066	Joshua Mathew	10	4	5	9	5	5	38			
29	VML19CS020	Albin Thomas	9	4	4	9	5	5	36			
30	VML19CS105	Snigdha Sathyanathan(L)	10	4	5	9	5	5	38			
31	VML19CS033	Antony Thomas	9	4	4	9	5	5	36	8		Ms. Diya Rameshan
32	VML19CS014	Akash Ajith	9	5	5	10	5	5	39			
33	VML19CS090	Sangeeth K	10	5	5	10	5	4	39			
34	VML19CS095	Sharon Rose Babu(L)	10	5	5	10	5	4	39			
35	VML19CS100	Sidhardhan AK	9	5	5	9	5	4	37.	9		Ms. Rajitha K V
36	VML19CS113	Uvais Hassan	9	5	4	9	4	4	35			
37	VML19CS056	EP Gopika (L)	9	5	4	9	4	4	35			
38	VML19CS006	Adheena KM	9	5	4	9	4	4	35			
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55	VML19CS088	Sahad Abdul Rahman	8	4	4	8	4	3	31	14	Mrs.Sreeraji Narayanan

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57	VML19CS034	Anumitha S Pradiu	7	4	4	7	4	3	29						
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59	VML19CS115	V R Arya (L)	7	4	4	7	4	5	31.						
										15					Ms. Sreelakshmi M

Senior Faculty

Manoj K.C

Indian Sign Language Translation Software

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

AKASH AJITH (VML19CS014)

SANGEETH K (VML19CS090)

SIDHARTHAN AK (VML19CS100)

SHARON ROSE BABU (VML19CS095)

under the supervision of

Ms. Rajitha K.V

Assistant Professor

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI

CHEMPERI P.O. - 670632, KANNUR, KERALA, INDIA

April 2023

VIMAL JYOTHI ENGINEERING COLLEGE

JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

ACCREDITED BY IEI, NBA & NAAC • ISO 9001:2015 CERTIFIED
AFFILIATED TO KTU • APPROVED BY AICTE

DEPT. OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the report entitled **Indian Sign Language Translation Software** submitted by **AKASH AJITH** (VML19CS014), **SANGEETH K** (VML19CS090), **SIDHARTHAN AK** (VML19CS100) and **SHARON ROSE BABU** (VML19CS095) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Ms. Rajitha K.V
(Project Guide)
Assistant Professor
Dept.of CSE
Vimal Jyothi Engineering College
Chemperi

Mr. Rijin I. K.
(Project Coordinator)
Assistant Professor
Dept.of CSE
Vimal Jyothi Engineering College
Chemperi

Place : VJEC Chemperi
Date : 28-04-2023

Head of the department

HEAD OF THE DEPARTMENT
Dept. of Computer science & Engg.
Vimal Jyothi Engineering College
Chemperi-670 632

(Office Seal)

Signature Not Verified

Principal.VJEC

DECLARATION

We hereby declare that the project report **Indian Sign Language Translation Software**, submitted for partial fulfillment of the requirements for the award of degree of Bachelor of Technology of the APJ Abdul Kalam Technological University, Kerala is a bonafide work done by us under supervision of **Ms. Rajitha K.V**.

This submission represents our ideas in our own words and where ideas or words of others have been included, we have adequately and accurately cited and referenced the original sources.

We also declare that we have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in my submission. We understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed the basis for the award of any degree, diploma or similar title of any other University.

AKASH AJITH

SANGEETH K

SIDHARTHAN AK

SHARON ROSE BABU

CHEMPERI

28-04-2023

ACKNOWLEDGEMENT

We would like to express our gratitude to **Dr. Benny Joseph**, Principal, **Dr. Divya. B**, Head of the Department, **Dr. Jeethu V Devasia**, Professor, **Mr. Rijin I. K.**, Assistant Professor and all the other staffs of Department of Computer Science, Vimal Jyothi Engineering College, Chemperi, for their valuable suggestion and co-operation.

We wish to extend our heartfelt thanks to our guide **Ms. Rajitha K.V**, Assistant Professor in the department of CSE, for her guidance, support and cooperation during the course of this project. Lastly, but not of least importance, we would like to thank our parents and friends whose encouragement and advice helped us a lot during the period of this work.

AKASH AJITH

SANGEETH K

SIDHARTHAN AK

SHARON ROSE BABU

Abstract

Sign Language (SL), also known as gesture-based language, is used by people with hearing loss to convey their messages. Sign language serves as a beneficial tool for daily interaction for the deaf-mute community, it is not commonly used by the hearing community. Thus, there is a lack of social interaction and communication between hearing impaired and others. Sign Language interpreters are required for people who do not have the knowledge for this form of communication, but interpreters are not readily available. Thus, a machine-based translation system is required to translate the text into SL. We propose a system that translates the input audio into Indian Sign Language using speech recognition algorithm. The process consists of translating the audio input to text and further to 3D avatar animation that generates sign language according to Indian Sign Language grammar.

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Chapter 1

Introduction

1.1 Overview

Hand sign language is a method of communication utilized by individuals who have hearing impairments or are deaf. This language is primarily visual and employs hand gestures, facial expressions, and body movements to convey thoughts, emotions, and concepts. Hand sign language is not universal, but rather each country has its own form of the language. It is used as the primary language of many deaf people, and is also used as a way to communicate with a deaf person. Hand sign language is a great way for deaf people to communicate with others and it is a powerful tool for communication.

6,909 spoken languages and 138 sign languages have been identified, but there is no universal sign language. Each has its own syntactical and grammatical structures to provide definitive means of communication, primarily for deaf communities worldwide. According to the 2011 census, 2.7 million people in India cannot speak, and 1.8 million are deaf [1]. Sign language serves as a beneficial tool for daily interaction for the deaf-mute community. However, they face difficulty communicating with others because most normal people are unfamiliar with sign language.

1.2 General Background

Hand sign language translators are important for communication between deaf people and those who can hear. They can help bridge the gap between those with hearing impairments and those without. With sign language translators, deaf people can communicate more effectively and efficiently with people who do not understand sign language. Sign language translators can also help facilitate conversations between two people who do not share the same language. In addition, sign language translators can be used to help deaf people access services and opportunities that may otherwise be inaccessible to them. Ultimately, hand sign language translators can help create a more inclusive and equal society by providing deaf people with tools to communicate effectively.

Hand sign language translator from audio to animation technology can be used to help the hearing impaired better understand spoken language. It uses a combination of speech recognition, computer vision, and animation to create a visual representation of what is being said [2]. This technology can be used in a variety of settings, from home to classroom to public settings. It can help bridge the communication gap between the hearing and the hearing-impaired, providing more inclusive environments for everyone.

1.3 Problem statement

Communication between those with hearing impairments and those without can be difficult, as those with hearing impairments often cannot understand spoken language. To address this challenge, we propose a system that translates audio input into animated gestures of Indian sign language. With this system, those with hearing impairments can more easily communicate with those without, as the system will act as an intermediary, translating between audio and sign language. This system has the potential to create an environment of inclusion and understanding, in which those with hearing impairments can more easily interact with the world around them.

1.4 Scope of the system

This system allows for a smoother and more equal communication between the deaf-mute and the hearing communities. It is designed to be easy to use, requiring minimal knowledge, and provides both text and 3D animations to represent gestures. This system provides a platform for people who are deaf or mute to connect with their hearing counterparts, which can be a great help in bridging the gap between the two communities. This system can also help to improve the accessibility of communication, as it makes it easier for both the deaf-mute and the hearing to understand each other. In short, this system is a valuable tool in creating equal communication opportunities and improving accessibility.

1.5 Objective

This application is designed to help people with hearing impairments communicate more effectively. It works by taking audio input through a microphone, and then displaying the corresponding sign language pattern. Animations are used to make the signs more visually appealing and understandable. This way, Indian Sign Language (ISL) is codified into a set of animated gestures which represent objects, actions and ideas, allowing for efficient communication with those who are hearing impaired. In short, this application enables two way communication between hearing impaired people and those who can hear, by translating audio into sign language and vice versa.

Chapter 2

Literature Review

2.1 Sign Language Generation System Based on Indian Sign Language Grammar

Sign Language (SL), also known as gesture-based language, is used by people with hearing loss to convey their messages. SL interpreters are required for people who do not have the knowledge of SL, but interpreters are not readily available. Thus, a machine-based translation system is required to translate the text into SL.

In this article, a system is implemented for translating English text into Indian Sign Language (ISL). It acts as a tool for human-computer interaction and eliminates the need for an ISL human interpreter for communicating with people who have hearing loss. The system features a rich corpus of English words and commonly used sentences. It consists of components such as an ISL parser, the Hamburg Notation System, the Signing Gesture Mark-up Language, and 3D avatar animation for generating SL according to ISL grammar [1]. The proposed system has been tested rigorously by SL users.

The results proved that the proposed system is highly efficient and achieves an average score of accuracy (i.e., 4.2 for English words and 3.8 for sentences on a scale from 1 to 5). The performance of proposed system has also been evaluated using the BiLingual Evaluation Understudy score, which results in 0.95 accuracy. The proposed

system and mobile application together has the potential to bring individuals with hearing loss and their entourage together.

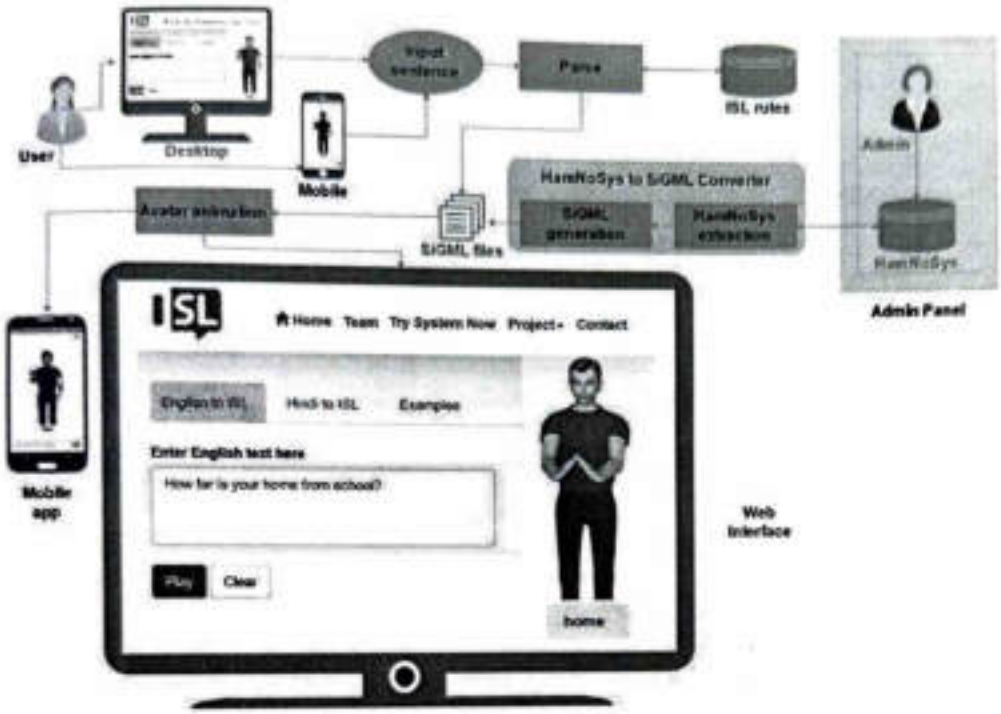

Figure 2.1: System architecture of ISL generation from text

The proposed system utilizes several components to facilitate the translation of English text into Indian Sign Language (ISL). These components include HamNoSys for sign representation, SiGML for converting the signs into an XML file, and an avatar to generate the signs visually. HamNoSys is a system for representing sign languages in a standardized way, allowing for the translation of text into sign language. SiGML is a file format that converts the signs represented in HamNoSys into an XML file, making it easier to process and analyze the data. The avatar is a visual representation of the signs that is used to display the generated sign language to the user. Together, these components work to translate English text into ISL and facilitate communication with people who have hearing loss.

The proposed system is designed with a number of features that enhance its

compatibility, flexibility, and ease of access for users, including:

- Instead of using pre-recorded videos, the system utilizes real-time HamNoSys to represent gestures, giving it the ability to generate signs in a flexible manner.
- The system includes a special keyboard for creating signs and a module that allows for automatic conversion of HamNoSys to SiGML.
- The system's corpus consists of 2,950 words and 1,000 sentences, and it offers various filters that the administrator can use to easily search for a specific word within the corpus.
- The system utilizes WebGL to enable fast 3D avatar animation, making it compatible with all browsers.
- The Avatar Application Programming Interface (API) has also been developed, providing a variety of functionalities for avatar animation, such as the ability to play the animation of a word or sentence, adjust the animation speed, fetch the current animation speed, replay the last animation, release the lock on the avatar, and check for errors when integrating with other applications.
- The proposed system has two types of users: an admin and an ISL (International Sign Language) user.
- The system includes an admin panel that allows the administrator to manage the database by adding, deleting, searching, and modifying words using various filters. Through this interface, ISL signs can be easily created, deleted, or updated.
- The proposed system has been used to reproduce an English textbook from the Punjab School Education Board (PSEB) in ISL, which would be very beneficial for the education of students with hearing loss.

2.2 ARoBERT: An ASR Robust Pre-Trained Language Model for Spoken Language Understanding

Spoken Language Understanding (SLU) involves interpreting the meanings of human speech in order to support various human-machine interaction systems. A key technique for SLU is Automatic Speech Recognition (ASR), which converts speech signals into text content. However, the output texts of modern ASR systems inevitably contain errors, which can compromise the error robustness of SLU models that are trained or tested on texts transcribed by ASR systems.

They introduced ARoBERT, an ASR Robust BERT model that can be fine-tuned to solve various SLU tasks with noisy inputs [3]. To ensure the robustness of ARoBERT, two novel self-supervised pre-training tasks were proposed during the pretraining phase to decrease the fluctuations of language representations when parts of the input texts are replaced by homophones or synophones. These tasks are called Phonetically-aware Masked Language Modeling (PMLM) and ASR Model-adaptive Masked Language Modeling (AMMLM). PMLM explicitly incorporates knowledge of word phonetic similarities into the pre-training process, causing homophones and synophones to have similar representations.

In AMMLM (ASR Model-adaptive Masked Language Modeling), a data-driven algorithm is introduced to identify typical ASR errors, allowing ARoBERT to tolerate errors made by ASR models. In the experiments, ARoBERT was evaluated across multiple datasets and consistently outperformed strong baselines. It was also found to outperform state-of-the-art models on a public benchmark. Currently, ARoBERT has been implemented in an online production system with significant improvements.

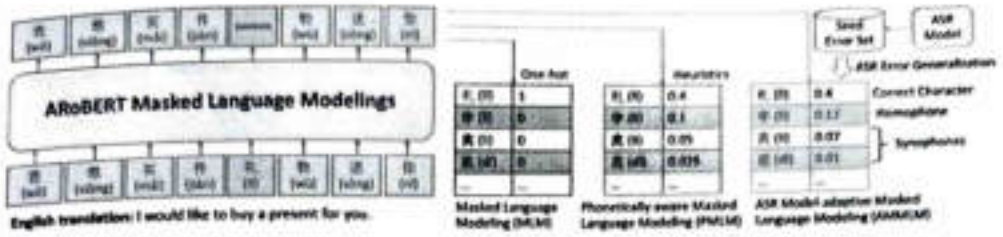

Figure 2.2: Illustration of the pre-training tasks in ARoBERT.

ARoBERT uses the same transformer encoder architecture as BERT to learn token representations, but it differentiates itself by incorporating rich phonetic knowledge during pre-training. This allows the transformer encoders to tolerate ASR errors that are phonetically similar to correct transcripts without errors.

2.3 CampNet: Context-Aware Mask Prediction for End-to-End Text-Based Speech Editing

The text-based speech editor allows for the editing of speech through the use of intuitive cutting, copying, and pasting operations to speed up the editing process. However, a major limitation of current systems is that edited speech often sounds unnatural due to the cut-copy-paste operation. Additionally, it can be difficult to synthesize records for a new word not present in the transcript.

This paper introduces a new end-to-end text-based speech editing method called the context-aware mask prediction network (CampNet), which addresses the issue of unnatural prosody in edited regions and can synthesize speech for words not present in the transcript. In addition, three text-based operations based on CampNet [2] have been designed to cover a range of text-based speech editing situations: deletion, insertion, and replacement. To synthesize speech for longer blocks of text, a word-level autoregressive generation method is also proposed. The paper also proposes a speaker adaptation method that uses only one sentence for CampNet and investigates the few-shot learning capabilities of CampNet, offering a new approach for speech

forgery tasks.

Subjective and objective experiments on the VCTK and LibriTTS datasets have demonstrated that the speech editing results based on CampNet are superior to those obtained using TTS technology, manual editing, and the VoCo method. Detailed ablation experiments were also conducted to examine the impact of the CampNet structure on its performance. The results of the experiments show that speaker adaptation using only one sentence can further improve the naturalness of speech editing in the case of one-shot learning.

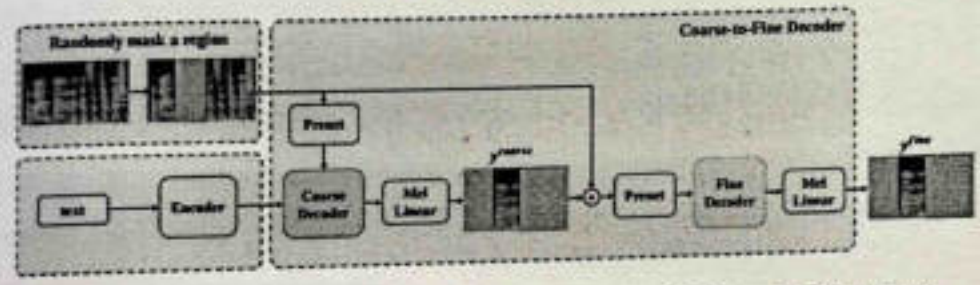

Figure 2.3: Structure of Context-Aware Mask Prediction Network (CampNet)

Using a pre-trained CampNet model, it is possible to perform various speech editing operations, such as deletion, insertion, and replacement.

The deletion operation enables the user to remove a portion of the speech waveform corresponding to specified words. This process is divided into three steps. The first step in the deletion process is to manually delete the target region and the corresponding words in the text. This manual deletion can result in unnatural phenomena at the connection, such as a discontinuity in the fundamental frequency. To address this issue, there are two potential solutions. The first is a convenient but empirical method that involves taking the connection point as the center and masking a small range of speech on either side. The masked speech and the text after deleting the target word are then input into CampNet to re-predict the masked region. The reason for masking a small range at the connection is to re-predict the pronunciation of the

word-final of the previous word and the word-initial of the next word. The second, more accurate method involves using an additional duration model to predict the pronunciation duration of the word-final of the previous word, the word-initial of the next word, and the pause information between the two words. The specific range is then masked based on this information. Users can choose which method to use based on their needs in different scenarios.

The replace operation allows the user to replace a portion of speech with another speech. This operation can be divided into two cases: when the length of the replaced segment is similar to the target pronunciation and when there is a large gap between them. For the former case, the process can be divided into two steps. The first step involves defining the word boundary to be replaced, masking it according to the word boundary, and modifying the text. It is important to note that the range of masking can be larger than the actual boundary in order to allow the model to learn more natural connections. The second step involves inputting the masked speech and the modified text into CampNet, and the model will predict the replaced speech based on the modified text. If there is a significant difference between the length of the replaced speech and the original speech, such as the addition or removal of words, a pre-trained duration model can be used to predict the length of the replaced region. The duration model is commonly used in traditional TTS tasks and can be used here to obtain the speech length of the replaced word. Based on the predicted length, the masked region can be adjusted by adding or deleting fragments to ensure consistency in duration.

The insert operation allows the user to insert a speech into the edited speech. This operation is similar to the replace operation. First, a pre-trained duration model can be used to predict the duration of the words to be inserted. The masked signal with the predicted length is then inserted into the original speech. Finally, the modified text and speech are input into CampNet, and the inserted speech is predicted. It is worth noting that when inserting or replacing words, masking part of the pronunciation of the adjacent words, such as the word-final of the previous word and the word-initial of the next word, can help to make the edited words sound more natural in relation to the adjacent words. CampNet can then be used to re-predict the pronunciation of the

masked area of these adjacent words, resulting in a more natural prosodic connection.

After pre-training the CampNet model using multi-speaker data, it is possible to synthesize a new speaker's voice without transfer learning. However, similar to TTS and VC tasks, it is possible to fine-tune the parameters for better results. CampNet has the added advantage of being able to enlarge the training data by randomly masking different positions of speech, even when the training corpus consists of only one sentence, which cannot be achieved with TTS and VC models. This section will provide a detailed explanation of the transfer learning methods based on CampNet for few-shot and one-shot learning.

2.4 Video Hand Gestures Recognition Using Depth Camera and Lightweight CNN

Hand gestures are a well-known and intuitive method of human-computer interaction. The majority of the research has concentrated on hand gesture recognition from the RGB images, however, little work has been done on recognition from videos.

In addition, RGB cameras are not robust in varying lighting conditions. Motivated by this, they presented the video based hand gestures recognition using the depth camera and a light weight convolutional neural network (CNN) model [4].

It constructs a dataset and then uses a light weight CNN model to detect and classify hand movements efficiently and also examined the classification accuracy with a limited number of frames in a video gesture. They compared the depth camera's video gesture recognition performance to that of the RGB camera and evaluated the proposed model's performance on edge computing devices and compare to benchmark models in terms of accuracy and inference time. The proposed model results in an accuracy of 99.48 percent on the RGB version of test dataset and 99.18 percent on the depth version of test dataset. Finally, they compared the accuracy of the proposed light weight CNN model with the state-of-the hand gesture classification models.

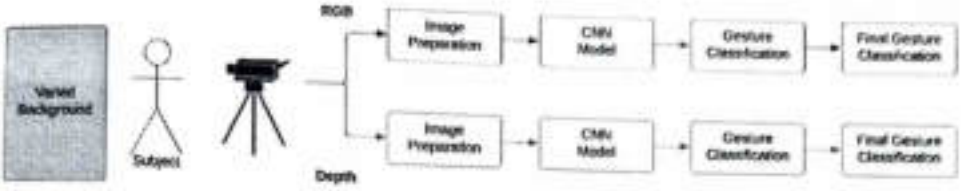

Figure 2.4: System architecture

Video-based gesture recognition is a technique that allows computers to recognize and interpret human hand gestures captured on video. This technology has a variety of applications, including augmented reality (AR) and virtual reality (VR), driver monitoring in autonomous vehicles, and automatic surgical tasks. The use of video-based gesture recognition can enhance the flexibility and naturalness of human-computer interaction, improving the interactive experience in teaching, gaming, and on-board control. However, there are several challenges to effective video-based gesture recognition, including camera movement, changes in the scale of the target, changes in the viewing angle, dynamic backgrounds, and changes in illumination. In this work, we propose a method for hand gesture recognition using videos captured with a depth camera in order to address these challenges. The key contributions of this work are as follows:

- In this work, they developed a dataset of video-based hand gestures using an RGB-D camera.
- In this work, we introduced a lightweight deep convolutional neural network (CNN) model for classifying hand gestures from video sequences.
- The proposed depth camera-based hand gestures are more reliable and robust when compared to those based on RGB cameras.
- In addition, the proposed video-based hand gestures have numerous practical applications compared to image-based hand gesture recognition.

- The proposed model can easily incorporate additional video gestures without requiring significant changes.
- They also conducted a thorough analysis on the impact of using a reduced number of frames in a video gesture, which has useful applications in other fields.
- Through a series of experiments, they evaluated the performance of the proposed method in terms of classification accuracy and inference time.
- They also demonstrated the real-time capabilities of the model by deploying it on an edge computing system.

The authors have proposed a Temporal Pyramid Relation Network to effectively and efficiently model the temporal relationship between frames. This is achieved by using Temporal Pyramid Pooling to obtain temporal feature sequences of multiple scale features. The temporal relations between these feature sequences are then obtained by stacking a Temporal Relation Network on the feature sequence of each scale. Finally, the representations of all features are aggregated to produce the final prediction.

Chapter 3

Requirement Specification

3.1 External Interface Requirements

3.1.1 User Interface

User Interface shows the interface between the software and a user. This system can be accessed by the user using a windows device. The interactive graphical user interface contains a button for recording speech and a space where the animations as well as captions are displayed.

3.1.2 Hardware Requirements

For the system, a Device that runs Windows OS is required accompanied with a high definition mic or a micro-electromechanical systems (MEMS) mic for providing input in form of audio.

3.1.3 Software Requirements

1. **Operating System**: Windows 10 or higer version.
2. **Animation Software**: Blender
3. **NLP Software**: Natural Language Tool Kit

4. **APIs and Libraries**: Python and C++ APIs to integrate speech-to-text model into applications.

3.2 Functional Requirements

Firstly, the system must be able to accurately identify and interpret spoken language. It means that the system must be able to recognize and understand the meaning of speech, which could be achieved through speech recognition and natural language processing techniques.

Secondly, system must be able to interpret sign language from audio input. This is accomplished through a combination of computer vision and machine learning techniques to recognize and interpret the movements and gestures of sign language.

The system should be able to generate a 3D animated output that represents the sign language interpretation. This indicates that the system should be able to translate the recognized sign language into a visual representation that is more easily understood by non-signers.

The system should be able to provide a real-time text-visual translation of sign language. This implies that the system should be able to recognize and interpret sign language gestures in real-time, while also generating a real-time visual and text output that conveys the interpretation.

Finally, the system must properly processes the input speech before translation. This could involve techniques such as noise reduction and filtering to ensure that the input speech is clear and understandable for accurate translation.

Chapter 4

Proposed System and Design

4.1 Proposed System

The primary objective of this project is to develop a robust communication platform for individuals who have hearing impairment, which will enable them to communicate and interact with others in a normal way. To achieve this goal, the system allows users to input audio in any language which is then automatically converted into English text format using advanced speech-to-text technology. Once the input is transcribed into text, the system generates an output in Indian Sign Language (ISL) format using 3D avatar animation, which makes it easy for the hearing-impaired users to comprehend and respond effectively.

This platform has immense potential in the education sector, particularly for students who have hearing loss. The system can be utilized in classrooms and lecture halls to provide a comprehensive learning experience for the students. The system enables hearing-impaired students to understand and communicate with their teachers and classmates effortlessly, thereby creating a conducive learning environment for everyone.

Moreover, the system has broader implications in the medical field, particularly in hospitals, clinics, and other medical facilities. It facilitates effective communication between physicians, medical staff, and hearing-impaired patients, thereby ensuring that

every patient receives the best possible care. The system can also be used in public places such as shopping malls, restaurants, and other public areas, allowing hearing-impaired people to access services and information easily.

4.2 Feasibility Study

4.2.1 Technical Feasibility

External API and open source plugins are available that helps to integrate speech-to-text model into application programs. Thus improvising compatibility and hence can be easily utilised in the application.

With a wide range of open source modelling software's it is feasible to create a 3D model with minimum technical knowledge and the current development in AI technology helps in capturing motion from any video file and in applying them to a rigged model.

4.2.2 Operational Feasibility

The application would function on any device that runs on Windows framework and has a decent microphone. The project can be further enhanced to be able to run on other operating systems.

4.2.3 Economic Feasibility

The application itself runs on the windows devices and the plugins, software platforms, etc that are used are open source, hence reducing the overall cost of production.

4.3 Design

4.3.1 Architecture Diagram

An architectural diagram is a graphical depiction of the structure and relationships of the components of a software system. It provides a visual representation of the physical implementation of the system, displaying the connections and limitations between each element.

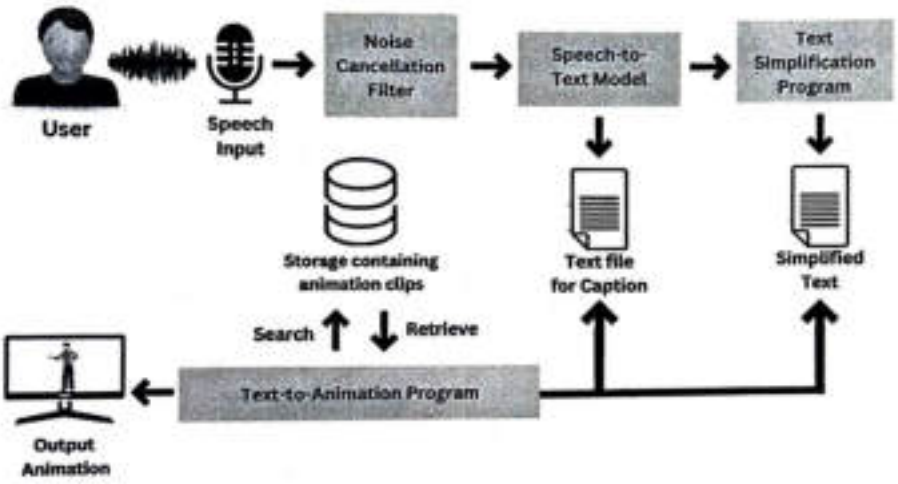

Figure 4.1: Complete system Architecture Diagram

This diagram helps to understand the overall architecture of the software system and how the various components fit together.

The audio input provided by the user undergoes noise cancellation filtering to eliminate any background noises. Once the noise cancellation filtering process is completed on the audio input, it is then forwarded to the Speech-to-Text model. This model is designed to convert the audio input into text format. The text obtained is written into a file to provide the captions while displaying the animation.

The text is then further simplified by removing copulas and converting the form of sentence into present tense. The simplified text is also stored in another text file to provide it during the animation.

The Text-to-Animation program contains a file that stores all the words whose animation clips are present. This program checks the simplified text to check if animation is present for the words and also the text file where the input is stored to provide as captions while displaying the output.

4.3.2 Data Flow Diagram

A data flow diagram is a graphical representation of the flow of information through a process or system. It illustrates the movement of data from its source, through various stages or subprocesses, and to its destination.

The diagram includes elements such as data inputs, data outputs, and data stores, as well as the relationships between these elements. It is used to understand and document the flow of data within a system or process.

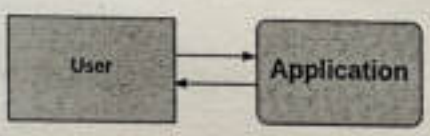

Figure 4.2: Level 0 of data flow diagram

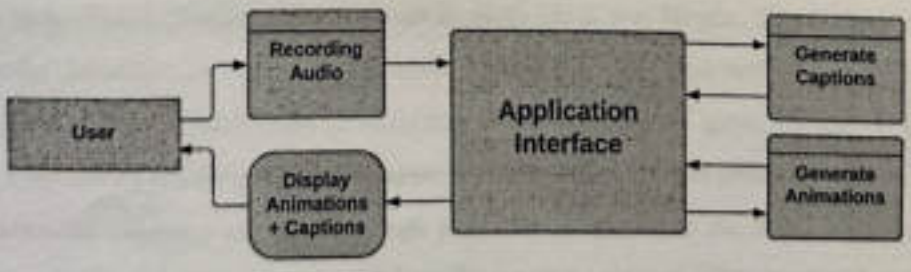

Figure 4.3: Level 1 of data flow diagram

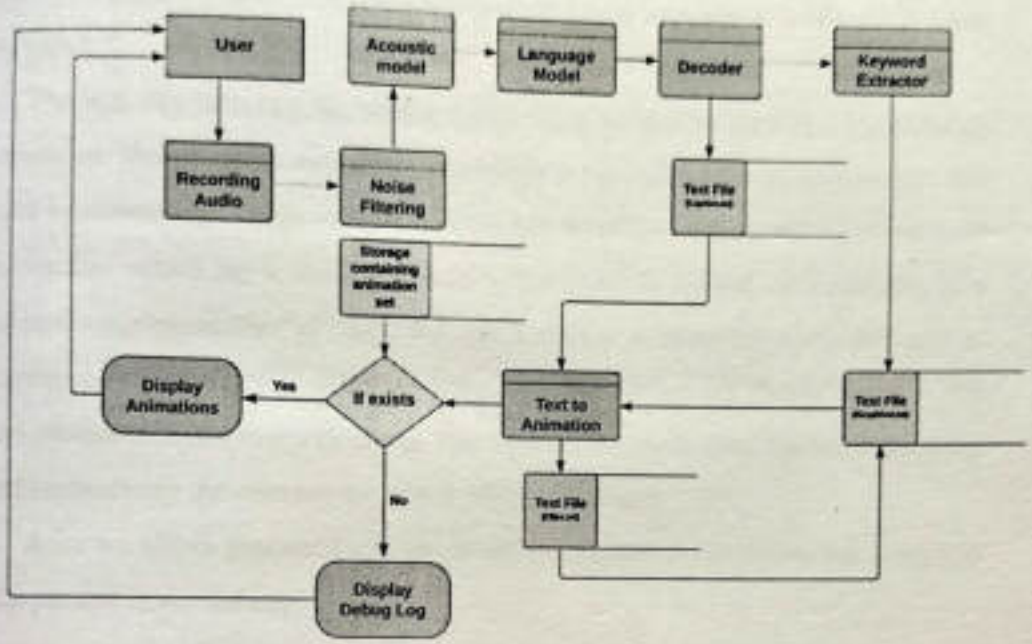

Figure 4.4: Level 2 of data flow diagram

4.4 Methods and Techniques

The idea of the project is to create a program that could take continuous voice inputs and simultaneously generate animated Indian Sign Language outputs. The process requires conversion the speech input into textual format after necessary processing of the audio input.

To take in an audio as input we utilise pyaudio library which helps in recording an audio from a microphone and obtain an audio file in wav format. This audio file is further processed for noise removal hence obtaining a more clear audio using Python library "librosa" which helps in analyzing and processing the audio signals. Noise is removed by masking the audio inputs under a certain decibel count as well as an additional frequency count. Also high pass filter is applied to the audio to make it more sharp so that it is easier to extract the content required. This processed audio file is converted into textual format by using a Speech-to-text model. Hence after

these processes we obtain a text file which contains the contents from the audio input provided.

The next step is to map the input sentence from the text file with its corresponding animation. Before we do that, some processing is required on the given sentence. We need to remove the words such as articles and prepositions from the sentence such as copulas, which are a words or phrases that links the subject of a sentence to a subject complement(like "is","be","the", etc.), in order to eliminate words that have no corresponding sign in ISL. Also the every words in the text file should be converted into present tense for easier mapping. These processes can be done through tokenizing and lemmatizing the sentence for which NLTK is utilized.

After we obtain processed text file, it will be mapped to corresponding animation clip present in our dataset.

Chapter 5

Implementation

5.1 Module Split Up

The entire project is divided into two phases, first the conversion of audio into text format and second phase deals with displaying animated ISL gestures corresponding to the text.

The processes done are:

- Obtaining the audio input.
- Processing the input audio.
- Extracting vocal contents from audio.
- Generating text for extracted vocal content.
- Display the generated text as caption.
- Identify keywords from generated text.
- Search animated clips corresponding to the keywords.
- Combine animated clips for different keywords in a sentence to create animation for the entire sentence.
- Display the animation.

5.2 Tools and Techniques

5.2.1 Pyaudio

Pyaudio is a Python library that provides bindings for the PortAudio library, which is a cross-platform library for audio input and output. Pyaudio allows to record and play audio in your Python programs. It provides an easy-to-use interface for interacting with the microphone, speakers, and other audio devices.

5.2.2 Librosa

Librosa is a Python library for analyzing and processing audio signals. It is designed to make it easy to work with audio data in Python by providing a simple and intuitive interface for common audio processing tasks. Librosa allows to extract meaningful information from audio signals, such as pitch, tempo, and spectral features. It provides tools for loading and manipulating audio files, as well as functions for extracting features from audio data that can be used for machine learning applications.

5.2.3 NLTK(Natuarl Language Tool Kit)

NLTK is a Python library that provides tools and resources for working with human language data. NLTK allows to work with text data in Python. It provides functions for text processing tasks such as tokenization, stemming, and parsing. It also includes corpora, which are large collections of text data, and provides tools for working with these datasets.

5.3 Speech-to-Text translation

Primarily, the user provides audio input through a microphone. This input could is recorded as a mono channel audio in the Int16 format. The sampling rate of audio is set to 44100 Hz and chunk of audio containing 1024 samples are processed at a time. These processes can be done using the pyaudio library provided by python. The audio

input given by the user is passed to a noise cancellation filter. This filter is mainly for removing any unwanted background noise or interference that may have been captured by the microphone. The purpose of the filter is to ensure that the input is clear and free from any distractions that could affect its quality or intelligibility.

The output of a noise cancellation filter is a processed version of the original input signal which is ideally free from any unwanted background noise or interference, cleaner and more intelligible than the original input signal. Thus, the processed version of the input audio signal is then passed to a Speech-to-Text model for converting the audio input to text format.

The Speech-to-Text model uses deep learning models, specifically recurrent neural networks (RNNs), to perform speech recognition. This model works by breaking down the audio input into small chunks and processing them sequentially. Each chunk is analyzed and compared to a set of pre-defined phonemes (the basic building blocks of spoken language) to determine the most likely transcription. The model then uses a language model to refine the transcription and provide a more accurate text output.

The Speech-to-text model consists of several components that work together to provide accurate and efficient speech recognition capabilities. These components include:

1. **Acoustic model**: This component is responsible for converting the input audio signal into a sequence of acoustic feature vectors. The acoustic model is trained using deep neural networks, such as Long Short-Term Memory (LSTM) networks, to model the complex relationship between the acoustic features and the corresponding text. This is done using Mel-frequency cepstral coefficients (MFCCs), which are commonly used in speech processing applications. The MFCCs are computed by first dividing the audio signal into short time frames, typically around 20-30 milliseconds long. Each time frame is then analyzed to extract the spectral envelope, which represents the distribution of energy across different frequency bands. The spectral envelope is then transformed using the Mel-frequency scale, which models the non-linear human perception

of sound, to create a set of Mel-scale filterbanks. The filterbank outputs are then transformed using a Discrete Cosine Transform (DCT) to create a set of cepstral coefficients, which represent the spectral envelope of the audio signal in a compressed form. These cepstral coefficients are then used as the input features for the acoustic model.

2. **Language model**: The language model is used to estimate the probability of different word sequences given the input audio signal. The language model is a recurrent neural network language model(RNNLM), that assigns a probability to each possible sequence of words. It uses a type of RNNLM called a long short-term memory (LSTM) network, which is a type of recurrent neural network (RNN) that is particularly good at modeling long-term dependencies in speech. LSTM can capture long-term dependencies between words and maintain a context vector that summarizes the information in the previous words. The language model is trained using a text data corpus and is used to constrain the search space during decoding. During decoding, the language model is used to weight the likelihood of different word sequences based on their probability given the input audio signal. This helps the decoder to choose the most likely transcription given the input audio signal.

3. **Decoder**: The decoder is responsible for converting the output of the acoustic and language models into the final transcription. The decoder uses beam search algorithm to efficiently search the space of possible word sequences and find the most likely transcription. It is a heuristic search algorithm that explores the space of possible word sequences by iteratively building up a set of the most likely word sequences based on the output of the acoustic and language models. The algorithm maintains a set of candidate word sequences, called the beam, and at each time step, it expands the beam by considering all possible extensions of the existing sequences based on the output of the acoustic model and the language model probabilities. The beam search algorithm has a parameter called the beam width, which determines the maximum number of candidate word

sequences to maintain at each time step. The beam width controls the trade-off between search speed and search accuracy, as a larger beam width allows the algorithm to explore a larger search space but increases the computational cost.During decoding, the decoder generates a sequence of phonemes or sub-word units based on the output of the acoustic model. The language model is then used to score each possible word sequence based on the probabilities of the individual phonemes or sub-word units. The decoder then selects the most likely transcription based on the word sequence with the highest score.

4. **Model configuration files**: The Speech-to-text model provides model for English with Indian English dialect and domain. This model is configured using configuration files, which specify the paths to the acoustic and language models, the decoding algorithm, and other parameters. The configuration files allows to customize the speech recognition pipeline by modifying the parameters of the decoding algorithm or other components.

5. **Python and C++ APIs**: The Speech-to-text model provides Python and C++ APIs are used to integrate speech recognition capabilities into applications. The APIs allow developers to pass audio data to the speech recognition engine and receive the corresponding text transcription. The Python and C++ APIs provide a convenient interface for integrating speech recognition into applications, and allow developers to easily customize the behavior of the speech recognition pipeline

The Speech-to-Text model extracts a set of acoustic features from the audio input to facilitate speech recognition. These features include:

1. Mel-frequency cepstral coefficients (MFCCs): These are a set of coefficients that capture the spectral characteristics of speech sounds. They are calculated by analyzing the frequency spectrum of short segments of audio.

2. Delta and delta-delta MFCCs: These are derivatives of the MFCCs that capture changes in the spectral characteristics of speech sounds over time.

3. Pitch: This feature captures the fundamental frequency of the speaker's voice and can help distinguish between different speakers.

4. Energy: This feature captures the overall energy level of the speech signal and can be used to detect changes in the speaker's intensity.

5. Zero-crossing rate: This feature captures the rate at which the audio signal crosses the zero-axis, which can help distinguish between speech and non-speech sounds.

After the acoustic features have been extracted from the speech signal, the speech to text model then performs phoneme recognition. Phoneme recognition is the process of identifying the individual speech sounds (or phonemes) that make up the words spoken in the audio input. The speech signal is broken down into small segments, typically lasting around 10-30 milliseconds each, and each segment is analyzed separately to determine the most likely phonemes present in that segment. To do this, the speech to text model compares the extracted acoustic features of each segment with a set of pre-defined phonemes. These pre-defined phonemes represent the basic building blocks of spoken language and are defined based on their unique acoustic properties. The speech to text model analyzes the acoustic features of each segment and compares them with the pre-defined phonemes to identify the most likely phoneme(s) present in that segment. By analyzing each segment in this way, the speech to text model is able to identify the individual phonemes that make up the spoken words in the audio input. This information is then used in the subsequent steps of the speech recognition process to identify the most likely words and phrases spoken by the speaker.

After the speech to text model has performed phoneme recognition on the audio input and identified the individual speech sounds (phonemes) present in each segment, the next step is word recognition. In this step, the speech to text model uses a language model to analyze the identified phonemes and determine the most likely words and phrases spoken by the speaker. A language model is a statistical model that is trained on a large corpus of text to learn the patterns of language and predict the likelihood of certain words and phrases appearing together. The speech to text model feeds the

identified phonemes into the language model, which then analyzes the sequence of phonemes and determines the most likely words and phrases spoken by the speaker. The output of the word recognition step is a sequence of words and phrases and this output is then further processed and refined through post-processing techniques to correct any errors and improve the accuracy of the final transcription.

To provide a caption for the speech, the final text output is then written to a text file, which can be displayed on a screen or integrated into the animation stream.

5.4 Text Simplification and Animation Mapping

The output obtained from the Speech-to-Text translation is further simplified by removing copulas and converting the remaining words into present tense form. Copulas refer to a group of words, including "am," "is," and "are," that can be eliminated from a sentence without altering its intended meaning. The function remove_copulas takes a string as the input parameter. The goal of this function is to remove all copula verbs from the sentence. The first step of the function is to tokenize the input sentence into individual words. This is done using the word_tokenize function from the Natural Language Toolkit (NLTK) library. The resulting list of words is stored in the variable words.

The function then iterates through each word in the words list and identifies whether it is a copula or not. This is done by using part-of-speech (POS) tagging, which identifies the grammatical category of each word. The pos_tag function from the NLTK is used to perform POS tagging on the words list. The function iterates through each word in the words list and identifies whether it is a copula or not. The function checks whether the current word is a copula by examining its POS tag and checking whether it matches the pattern 'VB', which indicates a verb, followed by any other characters. If the word is a copula and is one of the forms 'am', 'is', 'are', 'was', 'were', 'been', 'being', it is skipped by using the continue statement.

If the word is not a copula, it is added to the words_without_copulas list. Additionally, the convert_to_present function is called on the word to convert it to the

present tense. WordNetLemmatizer is a class in the Natural Language Toolkit (NLTK) library used for lemmatizing words. Lemmatization is the process of reducing a word to its base or root form.

Converting words from other tenses to the present tense can be a useful technique in various contexts where the current state of things is more pertinent than past or future actions. Using the present tense can also provide a sense of continuity, making it easier to connect the dots between events or actions that occurred in the past and the present moment. The general steps involved in lemmatzation are:

1. Tokenization: The input text is divided into individual words or tokens.
2. Part-of-speech (POS) tagging: Each word is labeled with its corresponding part of speech (e.g., noun, verb, adjective).
3. Lemmatization: The lemma of each word is determined based on its part of speech and its context. This involves applying a set of rules and heuristics to generate the most likely lemma for each word.
4. Output: The lemmatized words are returned as the final output.

The keywords obtained after the lemmatization process are compared with the words present in the text file called *Clips.txt*. The *Clips.txt* contains the words whose animation clip are available. For a word if there is a corresponding animation, then the word is directly placed into the *Simplified.txt*. if not, then synonyms for the word is listed and then searches the list to find a word that have an animation. If the synonym list doesn't have any word that contains an animation, then the original word is kept.

After identifying the relevant keywords from the text data, the next step in the process is to map them to corresponding animations in the dataset. This involves associating each keyword with a specific animation that convey the intended meaning in sign language.

Algorithm for converting Text to Animation

1. Declare a private LinkedList "AnimKeys" to store the animation clip names.
2. Declare a private Animation variable "anim" to store the animation component.
3. Implement the Start() function.
    - Get the Animation component of the current GameObject.
    - Initialize the AnimKeys LinkedList.
    - Call the function "SaveAnimNames".
    - Start the coroutine "generateCaption".
    - Set the pathSC variable to the path of a simplified caption text file "Simplified.txt".
    - Check if the file exists.
    - If the file exists, start the coroutine "playanim".
4. Implement the "playanim" coroutine.
    - Read the entire simplified caption text file and store the contents in a string.
    - Convert the string to lowercase.
    - If the string is not empty, add each word to the AnimKeys LinkedList and empty the simplified caption text file.
    - Wait for 3 seconds.
    - If there are animation clip names in the AnimKeys LinkedList, get the first one and remove it from the list.
    - If the animation clip exists, play it.
    - If the animation clip does not exist, call "CreateErrorMessage" function.
    - Restart the coroutine "playanim".
5. Implement the "SaveAnimNames" function.

- Get the path of the animation clips text file.
- If the file exists, get the name of each animation clip and save it to the file.

6. Implement the "generateCaption" coroutine.

- Get the path of the caption text file.
- If the file exists, read its contents and display them.
- Empty the caption text file.
- Wait for 3 seconds.
- Restart the coroutine "generateCaption".

7. Implement the "CreateErrorMessage" function.

- Display an error message with the name of the animation clip that was not found.

Chapter 6

Result and Discussion

This project outputs the animation for the input audio provided by the user. The first phase of the project consists of converting the input audio to text format using machine learning. Confusion matrix is used to describe the performance of the speech-to-text model on a set of test data for which the true values are known. The confusion matrix categorizes predictions according to whether they match the actual value.

	Predicted Negative	Predicted Positive
Actual Negative	2	9
Actual Positive	9	80

Figure 6.1: Confusion Matrix

TP (True Positive) represents the number of data points that are correctly predicted as positive, FN (False Negative) represents the number of data points that are actually positive but are incorrectly predicted as negative, FP (False Positive) represents the number of data points that are actually negative but are incorrectly predicted as

positive, and TN (True Negative) represents the number of data points that are correctly predicted as negative.

The confusion matrix provides useful information about the performance of a classification model, such as accuracy, precision, recall, and F1 score, which are calculated using the values in the matrix.

The values of *accuracy*, *precision* and *recall* can be calculated using the above mentioned parameters, i.e, *TP,TN,FP and FN*. The *F1 score* can be calculated using the values of *precision* and *recall*. The equations to evaluate the values are as provided.

Accuracy = TP+TN/(TP+TN+FP+FN)

Precision= TP/(TP+FP)

Recall= TP/(TP+FN)

F1 Score=2*(Precision*Recall)/(Precision+Recall)

Properties	Values
Accuracy	0.89
Precision	0.9
Recall	0.98
F1 Score	0.94

Table 6.1: The values obtained for Speech-to-Text model

A Receiver Operating Characteristic (ROC) curve is a graphical representation of the performance of a binary classification model that plots the true positive rate (TPR) against the false positive rate (FPR) for different threshold values.

A ROC curve that is closer to the top-left corner of the plot indicates better performance of the binary classifier, and hence a higher accuracy. The area under the ROC curve (AUC) is also commonly used as a metric to evaluate the performance of a binary classifier.

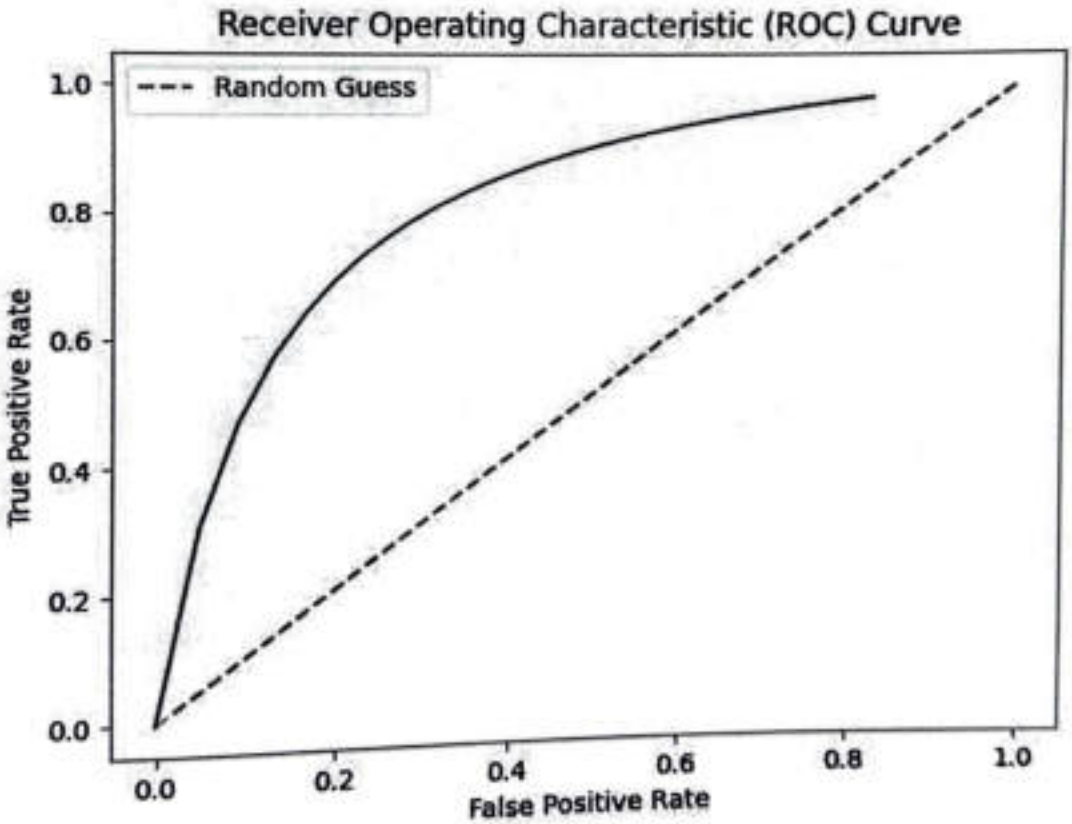

Figure 6.2: ROC Curve

The text obtained is then mapped to the corresponding animations to get the animation clips for the input provided by the user. The input is shown as captions while displaying the animation clips.

The provided figure depicts the model that has been developed to deliver sign language to the user. The model provides the sign language to all the words whose animation clips are present in *Clips.txt*.

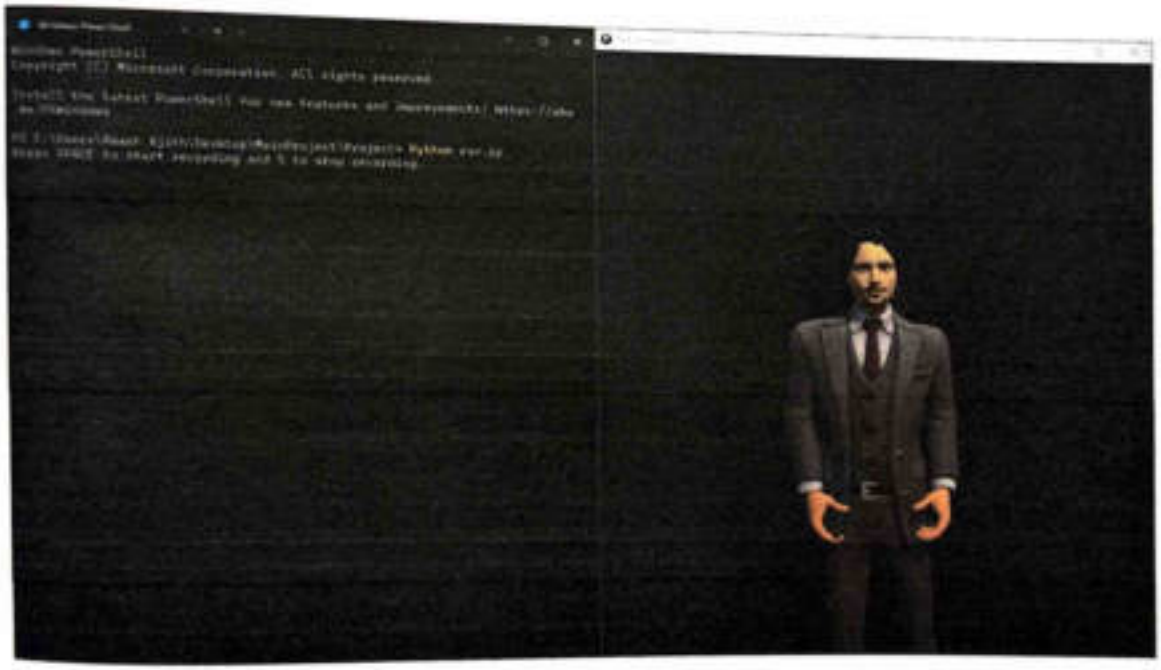

Figure 6.3: Animation Model

The figure below illustrates an instance in which the caption, representing the original audio provided by the user, is displayed in white. The simplified text, obtained by eliminating copulas and performing lemmatization for which the animation exists is indicated by the green-colored text.

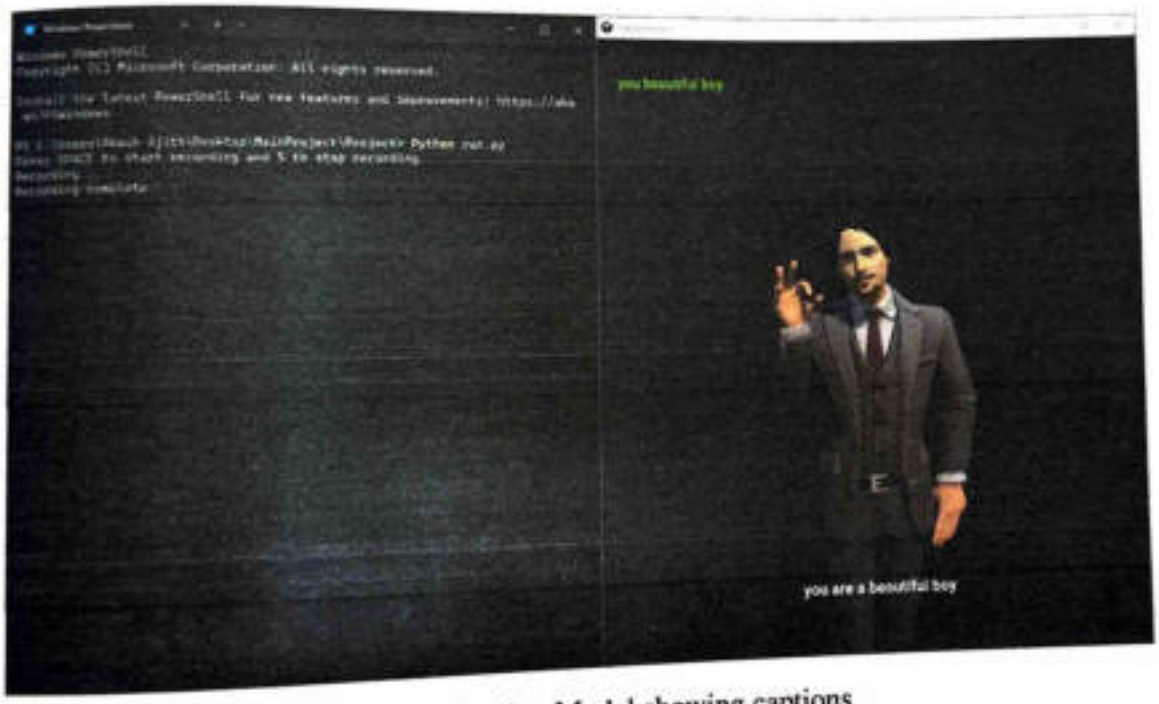

Figure 6.4: Animation Model showing captions

The figure below shows the results of processing the input audio. The original text is displayed in white, the simplified text for which there is an animation is shown in green, and the text without a corresponding animation is displayed in red.

Figure 6.5: Animation Model showing captions along with words doesn't having animation clip

Chapter 7

Conclusion and Future Work

The application of online speech recognition technology for everyday use would improve the accuracy of the technology for everyone who speaks the same language. This technology turns speech input into text format, which is then used by the system for further processing. Rather than using humanoid videos or pre-stored pictures, the system outputs a 3D avatar animation in real time for the representation of the sentence or word in Indian Sign Language (ISL).

This system poses an advantage for the hearing impaired people, who can communicate with any age group or with people who may not have much knowledge about sign language. It not only ensures the accuracy of communication but also helps the hearing impaired people to gain confidence in their communication with the hearing people. With this application, people with hearing impairment can communicate with people in any language, be it their native language or any other language.

The application of online speech recognition technology also eliminates the need for interpreters in many cases. This is especially beneficial for those who are not comfortable or not familiar with the sign language. Moreover, it eliminates the need to learn a new language, as people can communicate in their native language. The technology is also useful for those who want to learn sign language, as it helps them to practice and improve their sign language skills.

One of the significant areas where the technology can be used is in educational settings, such as classrooms and lecture halls, to support the learning process of hearing-impaired individuals. With the assistance of this technology, the hearing-impaired individuals can access the same educational content as their hearing peers and participate in classroom discussions, thus facilitating inclusive learning environments. The technology can also be useful in medical settings, such as hospitals, where communication between physicians and hearing-impaired patients can be challenging. With this technology, the patients can communicate their medical needs and concerns effectively to their physicians, which would improve the quality of healthcare for the hearing-impaired community. Furthermore, the technology has the potential to assist hearing-impaired people in their everyday lives, such as in shopping malls, restaurants, and other public places. The technology can help them communicate with others without the need for a sign language interpreter, which would provide them with greater independence and autonomy in their daily activities.

The application of online speech recognition technology can also be used to improve the communication between people with hearing impairments and their families or friends. This would enable them to share their experiences and feelings and develop a better understanding of each other. In addition, it can help them to have meaningful conversations and build strong bonds.

In general, the application of online speech recognition technology is a great step towards bridging the communication gap between the hearing and hearing impaired people. It not only provides the hearing impaired people with an easier way to communicate, but also gives them the opportunity to interact with people from different backgrounds. As the technology continues to evolve, it will only become more accessible and easier to use, leading to improved communication between the hearing and hearing impaired people.

The project has the potential for further improvement in the future, and one of the ways to enhance its capabilities is by expanding the domain of the application. This could be achieved by adding more animation clips, which would not only improve the accuracy and comprehensiveness of the program but also make it more appealing to

users.

Given the vastness of the English language and its extensive vocabulary, adding more words to the program could significantly enhance its effectiveness in interpreting and translating sign language accurately. This expansion of the vocabulary can be achieved through integrating machine learning algorithms to capture a wider range of words and phrases.

Additionally, the program's compatibility can be improved by making it available on various platforms and operating systems, such as Linux, Android, and others. This would increase the accessibility of the application and allow more people to benefit from its capabilities, regardless of their device or operating system.

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