2.6.2: Attainment of POs and COs are evaluated

Course Outcomes (Cos)

BATCH: 2018-2022

Course Code:	C313		Reg-2017		AU Subject Code:		CS8603
Course Name:	COMPILER DESIGN						
Year:	**3**	Sem:	**6**	**EVEN**		Course Year:	**2020-2021**
			COURSE OBJECTIVES				
S.No			**Objectives**				
1	To Know about the various phases of compiler.						
2	To study the various parsing techniques.						
3	To understand intermediate code generation and run-time environment.						
4	To learn to implement front-end of the compiler.						
5	To study the characteristics of peer-to-peer and distributed shared memory systems.						
			COURSE OUTCOMES				
CO No	**Upon the successful completion of the course, students will be able to**						
C313.1	Analyze the different phases of compiler and design a lexical analyzer for a sample language.						
C313.2	Apply different parsing algorithms to develop the parsers for a given grammar.						
C313.3	Describe syntax-directed translation and translation of expressions.						
C313.4	Design a simple code generator and compare different algorithms.						
C313.5	Choose the various code optimization techniques.						

CO-PO & PSO matrices of courses

| Course Code:			C314				AU Subject Code:			CS8603					
Course Name:		DISTRIBUTED SYSTEMS													
Year:	**3**		Sem: 6		Course Year:		2020-2021							PSO	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C301.1	3	1	-	-	-	1	-	1	-	-	-	1	3	3	3
C301.2	3	1	-	-	-	1	-	1	-	-	-	-	3	3	3
C301.3	2	2	1	-	-	1	-	1	-	-	-	1	3	3	3
C301.4	3	1	-	-	-	1	-	1	-	-	-	1	3	3	3
C301.5	3	1	1	-	-	1	-	1	-	-	-	1	3	3	3
AVG	2.8	1.2	1			1		1				1	3	3	3

Note:

Correlation levels **1,2** or**3** as defined below:

1: Slight (Low) **2:** Moderate (Medium) **3:** Substantial (High) If there is no correlation.

Attainment of Course Outcomes

Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based
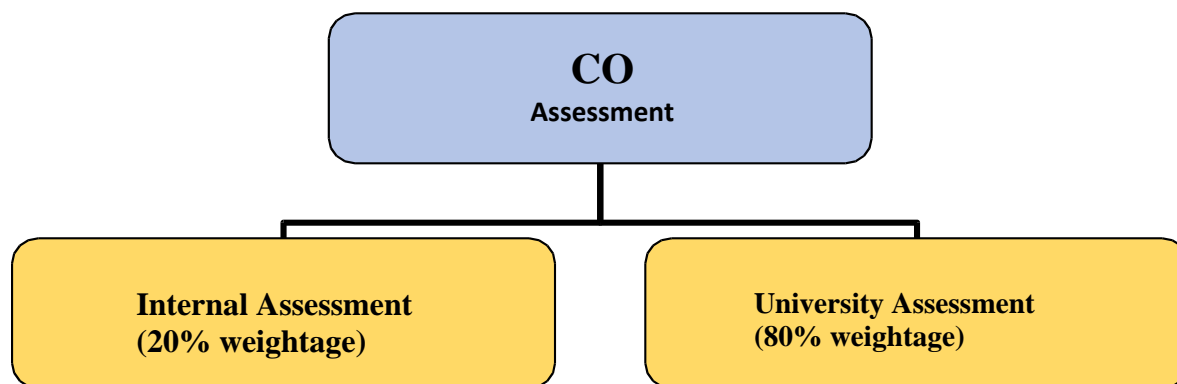
CO Assessment Rubrics

CO Assessment Rubrics:
Course Outcome is evaluated based on the performance of students in internal assessments and in university examination of a course. The direct Assessment contributes 20% and University Assessment contributes 80% to the aggregate attainment of a CO and the same is presented above in the Fig.3.1.

	COURSE TYPE	ASSESSMENT TOOLS	MINIMUM FREQUENCY
INTERNAL	THEORY	IAT I	1Per Semester
		IAT II	1Per Semester
		IAT III	1Per Semester
		Assignments	3 Per Semester
		University Exam	1 Per Semester
	PRACTICAL	Day to Day Lab	Every Day Session
		Model Lab Exam	1 Per Semester
		University Lab Exam	1 Per Semester
UNIVERSITY	THEORY	University Examination	1 Per Semester
	PRACTICAL	University Lab	1 Per Semester
INTERNAL	PROJECT	Zeroth Review	1 Per Semester
		First Review	1 Per Semester
		Second Review	1 Per Semester
		Third Review	1 Per Semester
UNIVERSITY		University Assessment VIVA VOCE EXTERNAL REVIEW	1 Per Semester

Theory:

Evaluation	Exam	Maximum Marks	Frequency	Duration
Internal	IAT I	100	Once per semester	3 Hours
	IAT II	100	Once per semester	3 Hours
	IAT III	100	Once per semester	3 Hours
	Assignment	10	3 Per Semester	-
External	University Exam	100	Once per semester	3 Hours

Internal Exams: Three Internal Assessment tests (IAT) are conducted every semester to evaluate the student performance. Each test is of 3 hours duration and is evaluated for 100 marks. Questions for these internal exams have been prepared according to Blooms Taxonomy format and two sets of question papers are prepared by the corresponding course faculty. Assessment of each question is done based on the course outcomes of the subject and the Evaluated papers are verified by a team of faculty.

IAT I: It is conducted for 100 marks with 3 hours duration. This exam covers 40% of syllabus in course outcome 1 and 2 of the corresponding subject.

IAT II: It is conducted for 100 marks with 3 hours duration. This exam covers 40% of the syllabus in course outcome 3 and 4 of the corresponding subject.

IAT III: It covers all course outcomes and it is conducted for 3 hours duration and is evaluated for 100 marks.

Assignments: It Covers all the course Outcomes and it is given to the students as Assignment I (Co1, Co2), Assignment II (Co3, Co4), Assignment III (Co5) and it is evaluated for 10 marks each.

University Examinations: The final-semester examinations are of 3-hour duration and cover the entire syllabus of the course.

Practical:

Evaluation	Mode of Evaluation	Maximum Marks
Internal	Day to Day performance	10
	Record Work	10
	Model Exam (Practical)	100
External	University Exam	100

Performance: Lab courses provide hands-on experience to the students with course concepts to explore technology used in their discipline. Every student is regular and learns the practical aspects of the lab and develops their skills to become Engineering professionals. To inculcate interaction among the students and to develop team spirit, the students are expected to carry out

experiments in groups. Performance assessment is based on the ability of the student to actively participate in the successful conduct of prescribed practical work. The student submits a record of practical work as soon as he completes the experiment.

Model lab Exam: A model lab exam of 3 hours duration is conducted to assess the ability of a student to perform a given task by integrating the knowledge gained from related theory course and regular lab sessions and cover the entire syllabus of the course.

University Examination: The end-semester practical examinations are 3 hour duration and cover the entire syllabus of the course.

Project*:*

S.NO	TIME	ACTIVITY
1	1st week of 8th semester	Formation of Project Batches and Guide Allotment
2	2nd week of 8th semester	Finalization of Project Title
3	3th week of 8th semester	Abstract Submission
4	5th week of 8th semester	Zeroth Review
5	6th week of 8th semester	First Review
6	8th week of 8th semester	Second Review
7	10th week of 8th semester	Third Review and Demonstration
8	11th week of 8th semester	Submission of Project report draft(Thesis)
9	As per university Schedule	Submission of main Project report(Thesis)
10		External review/examination

Project is intended to be a challenge to intellectual and innovative abilities and to give students the opportunity to synthesize and apply the knowledge and analytical skills learnt by different disciplines. Continuous suggestions and guidance is provided by the guide to their respective students of their project group. Performance of individual student is continuously assessed and evaluated by the project guide. Members of a project group shall prepare and submit separate reports. The report shall record all aspects of the work and is evaluated by project guide.

Zeroth Review: In zeroth review the Abstract and Domain Introduction of the proposed work is evaluated.

First Review: In first review the design part of the proposed work is evaluated. The student's communication skill and depth of knowledge in designing is assessed based on presentation and response to questions asked by the review panel.

Second Review: In second review, percentage of work completed, difficulties they faced and how they tackled them are analyzed to evaluate project progress. The individual involvement in project work is assessed based on response to questions asked by the panel.

Third review and Demonstration: Final review and demonstration is conducted at the end of semester to evaluate the completeness and perfection of work done. The assessment panel,

constituted by Internal and External panel members asks questions related to various stages of the project. The effectiveness of the individual student response to these queries is assessed.

University Viva – Voce:

Viva – Voce is conducted at the end of 8th semester as a part of assessing students' knowledge in engineering courses. An internal and an External examiner is appointed by the Anna University for conducting the viva voce examination.

Evaluation : As per the university norms, evaluation of the project is done through internal and external evaluations for 100 marks respectively. Individual student performance is evaluated in all the reviews and external examinations based contribution, presentation skills, and application and analysis abilities of the student. The technical quality of the project and its progress is enhanced by continuous monitoring of the student work by respective guides through their suggestions. The writing abilities of the students are also evaluated and updated through review/guide suggestions. The details of complete evaluation process are illustrated in the table below.

Evaluation	Review	Maximum Marks	Mode of evaluation
Internal	Zeroth	-	Abstract and Domain Introduction
	First	5	Literature Survey and Issues Finding
	Second	7.5	Work Progress and Module presentation
	Third	7.5	Demonstrate project and submit project report
External	Final (University Exam)	100	Demonstrate project, viva voce and submit final project report

Quality Assessment: The following are the initiatives taken by the department for ensuring quality of the projects

a) The Project evaluation committee together with project guide will analyze the nature of the project and contribution of each member in the project group.

b) The project selected could be an application oriented/product/research work.

c) The projects are classified into different areas and their relevance to PO's and PSO's are identified to ensure its quality.

Record the attainment of Course Outcomes of all courses with respect to set attainment levels

Attainment Levels: The Performance of a candidate for each course is assessed for 100 marks and further converted into grade points as per guidelines of Anna University.

Table 1. Set Attainment Levels of Cos (2018-2022)

Assessment Methods	Attainment Levels	
University/Internal Assessment	Level 1	Less than 60% of Students Scoring in University Pass Percentage Marks
	Level 2	Between 61% - 69% of students scoring in university Pass Percentage Marks
	Level 3	70% and More than 70% of Students Scoring in University pass Percentage Marks

Co Attainment Calculation of a Course:

Table 2. Co Attainment for C313

C313	C313.1	C313.2	C313.3	C313.4	C313.5
IAT I	3	3			
IAT II			3	3	
IAT III	3	3	0	3	0
Assignment 1	3	3			
Assignment 2			3	3	
Assignment 3					3
Internal Attainment	3	3	2	3	1.5
External Attainment	2.4	2.4	2.4	2.4	2.4
Total attainment	2.4	2.4	2.4	2.4	2.4

Shows the sample CO attainment of (C313). Internal Assessment test1 addresses the COs C313.1, and C313.2 whereas Internal Assessment test2 addresses C313.3, C313.4 , Internal Assessment test III addresses C313.1, C313.2 , C313.3, C313.4, C313.5 and University exam covers the entire syllabus of a course and hence it is useful to measure the attainment of all COs related to a course. The total attainment is the sum of 20% of internal attainment and 80% of university attainment. In this same manner CO attainment of all courses in a program are evaluated and recorded using related assessment tools.

The Corrective actions to be followed for CO attainments are,

1. Extra Practical Classes and assignments based on basic engineering are taken.
2. More programming classes to be taught in tutorial classes.
3. More design based activities and competitions need to be taken

4. Practical example need to be given to students to develop their relating skills.
5. Software implementation is taught with the help of NPTEL video presentation.
6. Conduction of Science Fest and motivating students to prepare/built software models
7. Innovative method of teaching need to implement to involve the students especially in management based subjects.
8. Internships and industrial oriented training made frequent for understanding current affairs.
9. Repetition and revision of topics in classes to catch up with students calibre.
10. Motivating the students to attend add on certificate courses and seminars etc.

CO Attainment of all Courses:

CO attainment of all courses for the Batch 2018-22

SNo.	COURSE CODE	CO1	CO2	CO3	CO4	CO5	AVG
FIRST SEMESTER							
1	C101	3	2.6	3	2.6	3	2.84
2	C102	3	3	3	3	3	3
3	C103	3	3	3	3	3	3
4	C104	3	3	3	3	3	3
5	C105	3	3	2	3	2	2.6
6	C106	3	3	3	-	-	3
7	C107	3	3	3	3	3	3
8	C108	3	3	3	3	3	3
SECOND SEMESTER							
9	C109	3	3	1.8	3	2.2	2.6
10	C110	2	1.2	2.4	1.6	2.4	1.92
11	C111	3	3	2.7	3	2.5	2.36
12	C112	3	3	3	-	-	3
13	C113	3	3	2.6	3	3	2.92
14	C114	3	3	2	3	1	2.4
15	C115	3	3	3	3	-	3
16	C116	3	3	3	3	3	3

THIRD SEMESTER							
17	C201	3	3	2	3	2	2.6
18	C202	3	3	2.7	3	2	2.74
19	C203	3	3	2.3	3	2	2.66
20	C204	3	3	2.7	2.5	2	2.64
21	C205	3	3	2.3	2.5	2.5	2.66
22	C206	3	3	3	3	3	3
23	C207	3	3	3	3	3	3
24	C208	3	3	3	3	3	3
25	C209	3	3	3	3	3	3
FOURTH SEMESTER							
26	C210	3	2	3	3	3	2.8
27	C211	3	3	3	3	3	3
28	C212	3	2.5	3	3	3	2.9
29	C213	3	3	3	3	3	3
30	C214	3	3	3	3	3	3
31	C215	3	3	3	3	3	3
32	C216	3	3	3	3	3	3
33	C217	3	3	3	3	3	3
34	C218	3	3	3	3	3	3
FIFTH SEMESTER							
35	C301	3.0	3.0	2.3	2.7	1.5	2.5
36	C302	3.0	3.0	2.3	3.0	1.5	2.6
37	C303	3.0	3.0	2.0	2.7	1.5	2.4
38	C304	3.0	3.0	2.3	3.0	1.5	2.6
39	C305	2.7	3.0	2.0	3.0	1.5	2.4
40	C306	3.0	3.0	2.3	1.0	1.5	2.2
41	C307	3.0	3.0	3.0	3.0	3.0	3.0
42	C308	3.0	3.0	3.0	3.0	3.0	3.0
43	C309	3.0	3.0	3.0	3.0	3.0	3.0

SIXTH SEMESTER						
44	C310	3	3	2	3	1.5	2.5
45	C311	3	3	2	3	1.5	2.5
46	C312	3	3	2	3	2	2.6
47	C313	3	3	2	3	1.5	2.5
48	C314	3	3	3	3	2.5	2.9
49	C315	3	3	2	3	2	2.6
50	C316	3	3	3	3	3	3
51	C317	3	3	3	3	3	3
52	C318	3	3	3	3	3	3
53	C319	3	3	3	3	3	3
SEVENTH SEMESTER						
54	C401	2.7	3.0	2.7	3.0	2.5	2.8
55	C402	2.7	3.0	1.3	3.0	2.5	2.5
56	C403	2.3	3.0	2.0	3.0	2.5	2.6
57	C404	2.7	3.0	2.0	3.0	2.5	2.6
58	C405	2.7	3.0	2.3	3.0	2.5	2.7
59	C406	2.7	3.0	2.3	3.0	2.5	2.7
60	C407	3	3	3	3	3	3
61	C408	3	3	3	3	3	3
EIGTH SEMESTER						
62	C409	3	3	2	3	1.5	2.5
63	C410	3.0	3.0	2.7	3.0	2.0	2.7
64	C411	3	3	3	3	3	3

Describe the assessment tools and processes used for measuring the attainment of each of the program Outcomes and Program Specific Outcomes

PO and PSO Assessment Rubrics
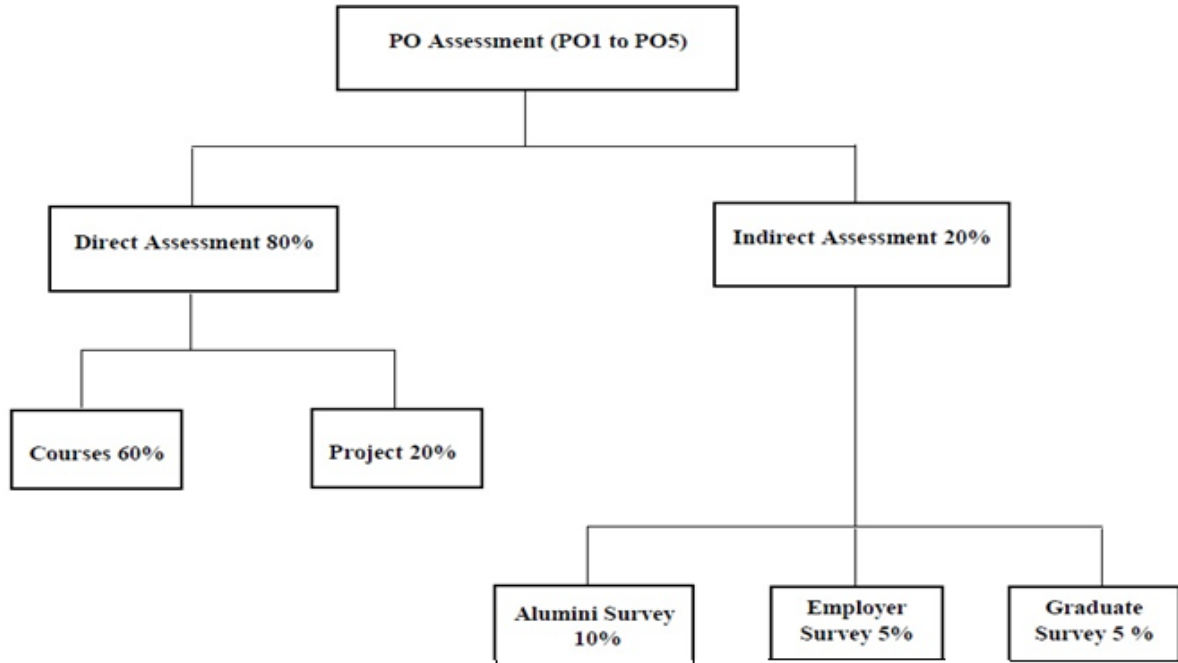
Fig. Assessment tools and processes for PO1 to PO5

PO assessment for PO1 to PO5 is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on COURSES and PROJECT attainment where 60% weightage is given to attainment through Courses and 20% weightage is given to attainment through Projects. Indirect assessment is done through program graduate survey, alumni survey and employer survey where program graduate survey and employer survey are given a weightage of 5% each and alumni survey is given a weightage of 10%.
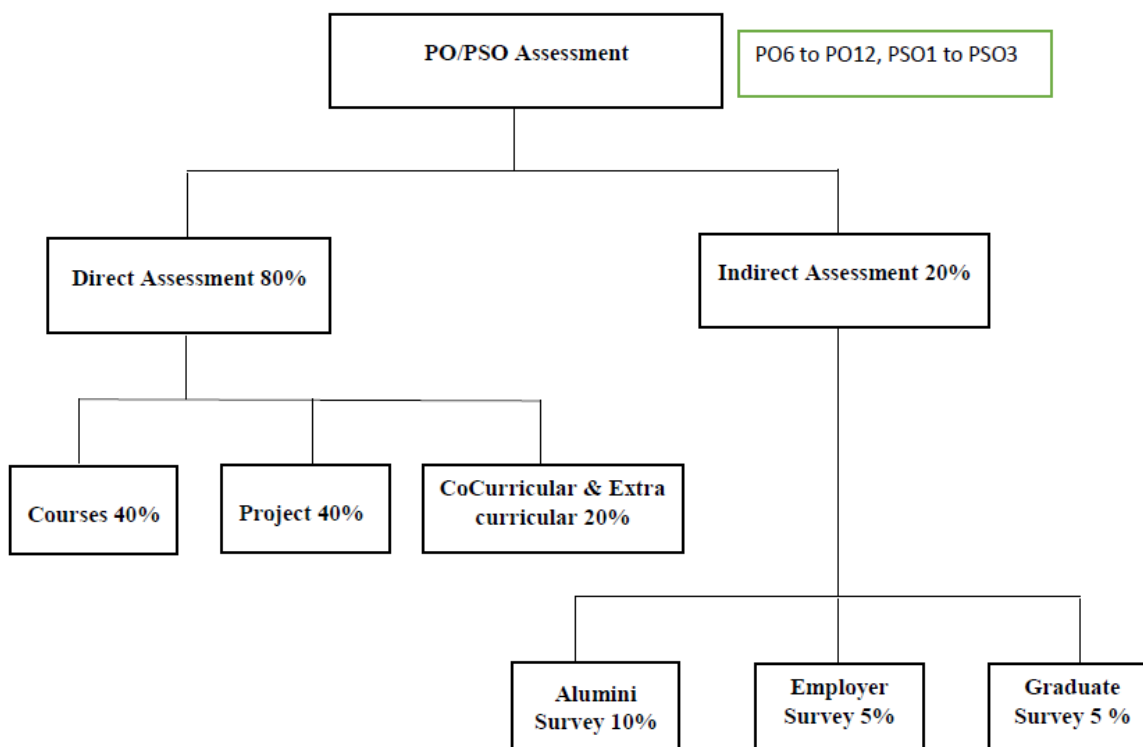
PO/PSO assessment for PO6 to PO12, PSO1 and PSO2 is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on COURSES, PROJECT and CO0Curricular & Extra CO-Curricular attainment where 40% weightage is given to attainment through Courses, 20% weightage is given to attainment through Projects and 20% weightage is given to attainment through co-curricular & extra co-curricular activities. Indirect assessment is done through program graduate survey, alumni survey and employer survey where program graduate survey and employer survey are given a weightage of 5% each and alumni survey is given a weightage of 10%.

(ii) **PO and PSO Assessment Tools:** The various direct and indirect assessment tools used to evaluate POs & PSOs and the frequency with which the assessment processes are carried out are listed in Table

PO,PSO,ASSESSMENT TOOLS AND PROCESS				
		COURSE TYPE	ASSESSMENT TOOLS	MINIMUM FREQUENCY
DIRECT(80% WEIGHTAGE)	CO ASSESSMENT	THEORY	IAT- 1	Once Per Semester
			IAT-2	Once Per Semester
			IAT -3	Once Per Semester
			Assignments	Three Per Semester
			University Exam	Once Per Semester
		PRACTICAL	Model Lab Exam	Once Per Semester
			University Lab Exam	Once Per Semester
		PROJECT	Zeroth Review	Once Per Semester
			First Review	Once Per Semester
			Second Review	Once Per Semester

			Third Review	Once Per Semester
		VIVA VOCE	University Assessment	Once Per Semester
Direct Assessment		**Co-Curricular and Extra Curricular Activities**		
INDIRECT ASSESSMENT		**SURVEYS**	Alumini survey	Once Per year
			Graduate Survey	Once Per year
			Employer Survey	Once Per Year

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GRADUATE SURVEY FORM

Name of the Student: Sem/Year: Date:

Rate the following based on program of your studies (3: Excellent, 2: Good, 1: Fair)
1. Technical knowledge acquired through the program. (PO1)
3   2   1
2. Analyzing a general problem in your domain of engineering. (PO2)
3   2   1
3. Design & develop subsystems and systems in your domain. (PO3)
3   2   1
4. Solving complex engineering problems in your domain. (PO4)
3   2   1
5. Usage of modern tools and technologies relevant to your engineering domain. (PO5)
3   2   1
6. Arrive right solutions for social context in your domain. (PO6)
3   2   1
7. Practice domain engineering in compliance with environmental standards. (PO7)
3   2   1
8. Following ethical code of conduct for professional transactions and responsibility towards
3   2   1

9	Ability to work in group to solve problems in your domain.(PO9)		
	3	2	1
10	Able to communicate effectively. (PO10)		
	3	2	1
11	Work effectively in project as a member in a team and leader. (PO11)		
	3	2	1
12.	Attitude to learn throughout your life. (PO12)		
	3	2	1
13	Ability to exhibit design and programming skills.(PSO1)		
	3	2	1
14	Provide elegant solutions to complex problems(PSO2)		
	3	2	1
15	Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1

STUDENT'S SIGNATURE,

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GRADUATE SURVEY FORM

Name of the Student: JAYASREE·V Sem/Year: OT / IV   Date: 23-09-2021

Rate the following based on program of your studies (3: Excellent, 2: Good, 1: Fair)

1	Technical knowledge acquired through the program. (PO1)
	[3 ✓] [2] [1]

2	Analyzing a general problem in your domain of engineering. (PO2)
	[3] [2 ✓] [1]

3	Design & develop subsystems and systems in your domain. (PO3)
	[3 ✓] [2] [1]

4	Solving complex engineering problems in your domain. (PO4)
	[3] [2 ✓] [1]

5	Usage of modern tools and technologies relevant to your engineering domain. (PO5)
	[3 ✓] [2] [1]

6	Arrive right solutions for social context in your domain. (PO6)
	[3] [2 ✓] [1]

7	Practice domain engineering in compliance with environmental standards. (PO7)
	[3] [2] [1 ✓]

8	Following ethical code of conduct for professional transactions and responsibility towards
	[3] [2 ✓] [1]

9	Ability to work in group to solve problems in your domain.(PO9)		
	3 ☑	2	1

10	Able to communicate effectively. (PO10)		
	3	2 ☑	1

11	Work effectively in project as a member in a team and leader. (PO11)		
	3 ☑	2	1

12.	Attitude to learn throughout your life. (PO12)		
	3	2	1 ☑

13	Ability to exhibit design and programming skills.(PSO1)		
	3 ☑	2	1

14	Provide elegant solutions to complex problems(PSO2)		
	3	2 ☑	1

15	Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1 ☑

STUDENT'S SIGNATURE,

Jaya Sakthi Engineering College

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GRADUATE SURVEY FORM

Name of the Student: NARESH·N   **Sem/Year:** 07 / IV   **Date:** 23-09-2021

Rate the following based on program of your studies (3: Excellent, 2: Good, 1: Fair)
1	Technical knowledge acquired through the program. (PO1)
	☑ 3 ☐ 2 ☐ 1
2	Analyzing a general problem in your domain of engineering. (PO2)
	☐ 3 ☑ 2 ☐ 1
3	Design & develop subsystems and systems in your domain. (PO3)
	☐ 3 ☐ 2 ☑ 1
4	Solving complex engineering problems in your domain. (PO4)
	☑ 3 ☐ 2 ☐ 1
5	Usage of modern tools and technologies relevant to your engineering domain. (PO5)
	☑ 3 ☐ 2 ☐ 1
6	Arrive right solutions for social context in your domain. (PO6)
	☐ 3 ☑ 2 ☐ 1
7	Practice domain engineering in compliance with environmental standards. (PO7)
	☐ 3 ☐ 2 ☑ 1
8	Following ethical code of conduct for professional transactions and responsibility towards
	☑ 3 ☐ 2 ☐ 1

9	Ability to work in group to solve problems in your domain.(PO9)
	3 2 ✓ 1

10	Able to communicate effectively. (PO10)
	3 2 ✓ 1

11	Work effectively in project as a member in a team and leader. (PO11)
	3 ✓ 2 1

12.	Attitude to learn throughout your life. (PO12)
	3 2 ✓ 1

13	Ability to exhibit design and programming skills.(PSO1)
	3 2 1 ✓

14	Provide elegant solutions to complex problems(PSO2)
	3 2 1 ✓

15	Work with various Engineering field as a team to design, build and develop application.(PSO3)
	3 ✓ 2 1

STUDENT'S SIGNATURE,

Graduate Survey form (Indirect Assessment)

:

Alumini Survey:

The attainment of PO and PSO is evaluated by feedback collected from Alumini students every year which is valuated for 5 marks out of 100.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Graduate Survey form (Indirect Assessment)

Name of the student:

Reg.No.:

Alumini Survey:

The attainment of PO and PSO is evaluated by feedback collected from Alumini students every year which is valuated for 5 marks out of 100.

ALUMINI SURVEY

Name of the Alumini: Date:

1	Your professional expertise support to our students. (PEO1)
	1. High (3)
	2. Moderate (2)
	3. Low (1)
2	What is your Present carrier position? (PEO2)
	I am employed right now (3)
	I am an entrepreneur and own a business (3)
	I am studying / completed my higher education (3)
	I am looking for better carrier (1)
	Please give employment/entrepreneurship details. *
	Please indicate your higher education details. *
3	Are you able to continue updating your knowledge & Skills? (PEO3)
	Yes, I am able to continuously update (3)
	I try to update, but feel difficult (2)
	I am unable to update (1)
Rate the following in your profession/ higher education	
(3: Excellent, 2: Good, 1: Fair)	
1	Ability to apply knowledge to carry out tasks. (PO1)

3	2	1

2	Ability to analysis complex operational problems. (PO2)

3	2	1

3	Ability to design & develop subsystems and systems in your domain. (PO3)

3	2	1

4	Ability to solve complex engineering problems. (PO4)

3	2	1

5	Ability to use techniques/ modern tools/ technologies relevant to your domain. (PO5)

3	2	1

6	Ability to arrive right solutions for problems of social context. (PO6)

3	2	1

7	Ability to practice domain engineering in compliance with environmental standards.

3	2	1

8	Ability to understand and follow ethical practices and social responsibilities. (PO8)

3	2	1

9	Achieve personal excellence and ability to work in group. (PO9)

3	2	1

10	Ability to communicate effectively. (PO10)

3	2	1

11	Ability to work effectively to manage the assigned task. (PO11)

3	2	1

12.	Ability to learn continuously. (PO12)

3	2	1

13.	Ability to exhibit design and programming skills.(PSO1)		
	3	2	1
14.	Ability to Provide elegant solutions to complex problems(PSO2)		
	3	2	1
15.	Ability to Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1

Signature of the Alumini

Jaya Sakthi Engineering College

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Graduate Survey form (Indirect Assessment)

Name of the student: JANANI .R.

Reg.No.: 112016104009

Alumini Survey:

The attainment of PO and PSO is evaluated by feedback collected from Alumini students every year which is valuated for 5 marks out of 100.

ALUMINI SURVEY

Name of the Alumini: JANANI .R   **Date:** 16/08/2021

1		Your professional expertise support to our students. (PEO1)
		1. High (3)
	✓	2. Moderate (2)
		3. Low (1)
2		What is your Present carrier position? (PEO2)
		I am employed right now (3)
	✓	I am an entrepreneur and own a business (3)
		I am studying / completed my higher education (3)
		I am looking for better carrier (1)
		Please give employment/entrepreneurship details. *
		Please indicate your higher education details. *
3		Are you able to continue updating your knowledge & Skills? (PEO3)
		Yes, I am able to continuously update (3)
		I try to update, but feel difficult (2)
	✓	I am unable to update (1)
Rate the following in your profession/ higher education
(3: Excellent, 2: Good, 1: Fair)
1	✓	Ability to apply knowledge to carry out tasks. (PO1)

		3	2 ☑	1

2	Ability to analysis complex operational problems. (PO2)
	3 2 ☑ 1

3	Ability to design & develop subsystems and systems in your domain. (PO3)
	3 2 1 ☑

4	Ability to solve complex engineering problems. (PO4)
	3 2 ☑ 1

5	Ability to use techniques/ modern tools/ technologies relevant to your domain. (PO5)
	3 ☑ 2 1

6	Ability to arrive right solutions for problems of social context. (PO6)
	3 2 ☑ 1

7	Ability to practice domain engineering in compliance with environmental standards.
	3 2 1 ☑

8	Ability to understand and follow ethical practices and social responsibilities. (PO8)
	3 ☑ 2 1

9	Achieve personal excellence and ability to work in group. (PO9)
	3 2 ☑ 1

10	Ability to communicate effectively. (PO10)
	3 ☑ 2 1

11	Ability to work effectively to manage the assigned task. (PO11)
	3 2 ☑ 1

12.	Ability to learn continuously. (PO12)
	3 2 1 ☑

13.	Ability to exhibit design and programming skills.(PSO1)		
	3	2	1
14.	Ability to Provide elegant solutions to complex problems(PSO2)		
	3	2	1
15.	Ability to Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1

Signature of the Alumini

Jaya Sakthi Engineering College

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Graduate Survey form (Indirect Assessment)

Name of the student: Sathya Das . S

Reg.No.: 112018104011

Alumini Survey:

The attainment of PO and PSO is evaluated by feedback collected from Alumini students every year which is valuated for 5 marks out of 100.

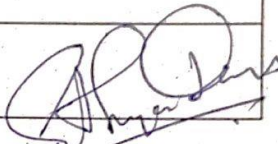### ALUMINI SURVEY

Name of the Alumini: Sathya Das . S   Date: 16/00/2021

1	Your professional expertise support to our students. (PEO1)
✓	1. High (3)
	2. Moderate (2)
	3. Low (1)
2	**What is your Present carrier position? (PEO2)**
	I am employed right now (3)
	I am an entrepreneur and own a business (3)
✓	I am studying / completed my higher education (3)
	I am looking for better carrier (1)
	Please give employment/entrepreneurship details. *
	Please indicate your higher education details. *
3	**Are you able to continue updating your knowledge & Skills? (PEO3)**
✓	Yes, I am able to continuously update (3)
	I try to update, but feel difficult (2)
	I am unable to update (1)
	Rate the following in your profession/ higher education
	(3: Excellent, 2: Good, 1: Fair)
1	Ability to apply knowledge to carry out tasks. (PO1)

		3	2 ✓	1	

2	Ability to analysis complex operational problems. (PO2)

	3 ✓	2	1

3	Ability to design & develop subsystems and systems in your domain. (PO3)

	3	2 ✓	1

4	Ability to solve complex engineering problems. (PO4)

	3 ✓	2 ✓	1

5	Ability to use techniques/ modern tools/ technologies relevant to your domain. (PO5)

	3 ✓	2	1

6	Ability to arrive right solutions for problems of social context. (PO6)

	3 ✓	2	1

7	Ability to practice domain engineering in compliance with environmental standards.

	3 ✓	2	1

8	Ability to understand and follow ethical practices and social responsibilities. (PO8)

	3	2 ✓	1

9	Achieve personal excellence and ability to work in group. (PO9)

	3 ✓	2	1

10	Ability to communicate effectively. (PO10)

	3	2 ✓	1

11	Ability to work effectively to manage the assigned task. (PO11)

	3	2 ✓	1

12.	Ability to learn continuously. (PO12)

	3	2 ✓	1

13.	Ability to exhibit design and programming skills.(PSO1)		
	3	2	1

14.	Ability to Provide elegant solutions to complex problems(PSO2)		
	3	2	1

15.	Ability to Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1

Signature of the Alumini

Employer Survey Form

Employer Survey:

The attainment of PO and PSO is evaluated by feedback collected from Employers who have recruited our students which is valuated for 10 marks out of 100.

Jaya Sakthi Engineering College

(Approved by AICTE. New Delhi & Affiliated to Anna University. Chennai)
St. Mary's Nagar. Thiruninravur, (Near Avadi). Chennai - 602 024
www.sakthiec.edu.in   email : info@sakthiec.edu.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GRADUATE SURVEY FORM

Name of the Student: Sem/Year: Date:

Rate the following based on program of your studies (3: Excellent, 2: Good, 1: Fair)		
1	Technical knowledge acquired through the program. (PO1)	
	3 2 1	
2	Analyzing a general problem in your domain of engineering. (PO2)	
	3 2 1	
3	Design & develop subsystems and systems in your domain. (PO3)	
	3 2 1	
4	Solving complex engineering problems in your domain. (PO4)	
	3 2 1	
5	Usage of modern tools and technologies relevant to your engineering domain. (PO5)	
	3 2 1	
6	Arrive right solutions for social context in your domain. (PO6)	
	3 2 1	
7	Practice domain engineering in compliance with environmental standards. (PO7)	
	3 2 1	
8	Following ethical code of conduct for professional transactions and responsibility towards	
	3 2 1	

9	Ability to work in group to solve problems in your domain.(PO9)		
	3	2	1
10	Able to communicate effectively. (PO10)		
	3	2	1
11	Work effectively in project as a member in a team and leader. (PO11)		
	3	2	1
12.	Attitude to learn throughout your life. (PO12)		
	3	2	1
13	Ability to exhibit design and programming skills.(PSO1)		
	3	2	1
14	Provide elegant solutions to complex problems(PSO2)		
	3	2	1
15	Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1

STUDENT'S SIGNATURE,

Jaya Sakthi Engineering College

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GRADUATE SURVEY FORM

Name of the Student: JAYASREE·V Sem/Year: OT/IV   Date: 23-09-2021

Rate the following based on program of your studies (3: Excellent, 2: Good, 1: Fair)
1   Technical knowledge acquired through the program. (PO1)
[3 ✓]   [2]   [1]
2   Analyzing a general problem in your domain of engineering. (PO2)
[3]   [2 ✓]   [1]
3   Design & develop subsystems and systems in your domain. (PO3)
[3 ✓]   [2]   [1]
4   Solving complex engineering problems in your domain. (PO4)
[3]   [2 ✓]   [1]
5   Usage of modern tools and technologies relevant to your engineering domain. (PO5)
[3 ✓]   [2]   [1]
6   Arrive right solutions for social context in your domain. (PO6)
[3]   [2 ✓]   [1]
7   Practice domain engineering in compliance with environmental standards. (PO7)
[3]   [2]   [1 ✓]
8   Following ethical code of conduct for professional transactions and responsibility towards
[3]   [2 ✓]   [1]

9	Ability to work in group to solve problems in your domain.(PO9)		
	3 ☒	2	1

10	Able to communicate effectively. (PO10)		
	3	2 ☑	1

11	Work effectively in project as a member in a team and leader. (PO11)		
	3 ☑	2	1

12.	Attitude to learn throughout your life. (PO12)		
	3	2	1 ☑

13	Ability to exhibit design and programming skills.(PSO1)		
	3 ☑	2	1

14	Provide elegant solutions to complex problems(PSO2)		
	3	2 ☑	1

15	Work with various Engineering field as a team to design, build and develop application.(PSO3)		
	3	2	1 ☑

STUDENT'S SIGNATURE,

Impact Analysis

Students get benefited in improving their skill set by availing the activities carried out in the department.

These Activities are planned based on the above Surveys and can be implemented effectively.

3.3.2. Results of evaluation of each PO & PSO (40)

BATCH 2018-2022

S.No.	Assessment	Courses /Activities Contributing to PO	PO 1	PO 2	PO 3	PO 4	PO 5
1	D	Courses	2.45	2.02	1.98	1.47	1.54
2	D	Project	3	3	3	3	3
3	D	Co-Curricular	3	3	3	3	3
4	ID	Graduate Survey	2.7	2.8	2.8	2.7	2.8
5	ID	Alumni Survey	2.67	2.58	2.64	2.67	2.58
6	ID	Employer Survey	3	3	3	3	3

S. No.	Assessment	Courses /Activities Contributing to PO	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	D	Courses	1.48	1.28	1.53	1.72	1.55	1.19	1.93	2.31	1.90	2.01
2	D	Project	3	3	3	3	3	3	3	3	3	3
3	D	Co-Curricular	3	3	3	3	3	3	3	3	3	3
4	ID	Graduate Survey	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.8	2.9
5	ID	Alumni Survey	2.70	2.55	2.67	2.58	2.70	2.61	2.70	2.67	2.64	2.64
6	ID	Employer Survey	2.6	2.8	2.7	2.8	2.8	2.9	2.9	2.9	2.8	2.5

PO (1-5) Attainment:

S. No	Assessment	Courses /Activities Contributing to PO	Assessment Weightage	PO 1	PO 2	PO 3	PO 4	PO 5
1	D	Courses	60%	0.98	0.81	0.79	0.59	0.62
2	D	Project/	20%	0.6	0.6	0.6	0.6	0.6

4	ID	Graduate Survey	5%	0.15	0.15	0.15	0.15	0.15
5	ID	Alumni Survey	10%	0.27	0.28	0.28	0.27	0.28
6	D	Co-Curricular	5%	0.15	0.15	0.15	0.15	0.15
Overall PO Attainment (On a scale of 3)				2.64	2.39	2.37	2.05	2.1

PO (6-12) / PSO (1-2) Attainment:

S.No.	Assess-ment	Courses /Activities Contributing to PO	Assessment Weightage	PO 6	PO 7	PO 8	PO9	PO 10	1PO11	PO 12	PSO 1	PSO 2	PSO 3
1	D	Courses	40%	0.59	0.51	0.61	0.69	0.62	0.48	0.77	0.92	0.76	0.80
2	D	Project	20%	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
3	D	Co-Curricular	20 %	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
4	ID	Graduate Survey	5%	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
5	ID	Alumni Survey	10%	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.28	0.29
6	ID	Employer Survey	5%	0.14	0.13	0.13	0.13	0.14	0.13	0.14	0.13	0.13	0.13
Overall PO Attainment (On a scale of 3)				2.36	2.27	2.37	2.45	2.39	2.25	2.55	2.69	2.52	2.57

Final PO Attainment:

PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO12	PSO1	PSO2	PSO3
2.64	2.39	2.37	2.05	2.1	2.36	2.27	2.37	2.45	2.39	2.25	2.55	2.69	2.52	2.57

S.No.	Assessment	Courses /Activities Contributing to PO	PO 1	PO 2	PO 3	PO 4	PO 5
1	D	Courses	2.55	2.12	2.14	1.84	1.76
2	D	Project	3	3	3	3	3
3	D	Co-Curricular	3	3	3	3	3
4	ID	Graduate Survey	2.80	2.72	2.77	2.65	2.79
5	ID	Alumni Survey	2.54	2.15	2.44	2.63	2.63
6	ID	Employer Survey	3	3	3	3	3

S. No.	Assessment	Courses /Activities Contributing to PO	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
1	D	Courses	2.09	2.19	2.05	2.07	2.04	2.25	2.01	2.37	1.88	2.00
2	D	Project	3	3	3	3	3	3	3	3	3	3
3	D	Co-Curricular	3	3	3	3	3	3	3	3	3	3
4	ID	Graduate Survey	2.75	2.77	2.70	2.79	2.75	2.78	2.75	2.74	2.80	2.80
5	ID	Alumni Survey	2.65	2.54	2.52	2.46	2.65	2.56	2.69	2.69	2.69	2.63
6	ID	Employer Survey	2.6	2.8	2.7	2.8	2.8	2.9	2.9	2.9	2.8	2.5

PO (1-5) Attainment:

S. No	Assessment	Courses /Activities Contributing to PO	Assessment Weightage	PO 1	PO 2	PO 3	PO 4	PO 5
1	D	Courses	60%	1.53	1.27	1.28	1.10	1.06
2	D	Project/	20%	0.6	0.6	0.6	0.6	0.6
4	ID	Graduate Survey	5%	0.14	0.14	0.14	0.13	0.14
5	ID	Alumni Survey	10%	0.25	0.22	0.24	0.26	0.26
6	D	Co-Curricular	5%	0.15	0.15	0.15	0.15	0.15
		Overall PO Attainment (On a scale of 3)		2.67	2.38	2.41	2.24	2.21

PO (6-12) / PSO (1-2) Attainment:

S.No.	Assess-ment	Courses/Activities Contributing to PO	Assessment Weightage	PO6	PO7	PO8	PO9	PO10	1PO11	PO12	PSO1	PSO2	PSO3
1	D	Courses	40%	0.59	0.51	0.61	0.69	0.62	0.48	0.77	0.92	0.76	0.80
2	D	Project	20%	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
3	D	Co-Curricular	20 %	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
4	ID	Graduate Survey	5%	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
5	ID	Alumni Survey	10%	0.27	0.25	0.25	0.25	0.27	0.26	0.27	0.27	0.27	0.26
6	ID	Employer Survey	5%	0.14	0.13	0.13	0.13	0.14	0.13	0.14	0.13	0.13	0.13
Overall PO Attainment (On a scale of 3)				2.34	2.23	2.33	2.41	2.37	2.21	2.52	2.66	2.5	2.53

Final PO Attainment:

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
2.67	2.38	2.41	2.24	2.21	2.34	2.23	2.33	2.41	2.37	2.21	2.52	2.66	2.5	2.53