



MOHAMED SATHAK A J COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

Siruseri IT Park, Egattur, Chennai - 603 103

2.6.2

S.No	Content	Page no.
1.	CO-PO Attainment sample	02-05
2.	PO Attainment- Direct	06
3.	PO Attainment-Indirect	07
4.	Individual Subject Mark Sheet and Question Paper	08-09
5.	Sample screen shot for MCQ	10-12
6.	Record of class work-Theory	13-33
7.	Student Lab Record	34-36
8.	Mini Project	37-38
9.	Main Project	39-44
10.	Student Publication	45-53
11.	Anna University Theory Exam Schedule	54-56
12.	Anna University Lab Exam Schedule	57-59
13.	Innovative Teaching Methodology	60-64
14.	Tutorial Sheet	65-66
15.	Course End Survey	67
16.	Exit Survey	68-69
17.	Parents Teachers Meeting	70
18.	Student Accessing Mark from Anna University Web Portal	71

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (QMR), Siruseri, IT Park
Chennai-603 103.

Mohamed Sathak A J College of Engineering
Department of Computer Science Engineering

CO Attainment Format

Year/Sem	III/VI									
Subject Code/Name	CS8602 / Compiler Design									
Pass%/Class Avg %	CAY-1: 50%	CAY-2: 55%	CAY-3: 50%							
Subject Target	50.00%									
No of Students	31									

INTERNAL ASSESMENT			INTERNAL ASSESMENT - I											INTERNAL ASSESMENT - II										
CO No.			CO1	CO1	CO1	CO2	CO2	CO1	CO1	CO1	CO1	CO1		CO2	CO2	CO2	CO2	CO2	CO1	CO1	CO2	CO2	CO1	
S.No	REG NO	NAME	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB1	PB2	PC1	Total	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB1	PB2	PC1	Total
			2	2	2	2	2	2	2	12	12	12	50	2	2	2	2	2	2	2	12	12	12	50
1	311817104001	Aayisha M	2	1	0	1	2	1	0	9	0	9	25	1	0	1	2	1	2	1	6	1	8	23
2	311817104002	Afroze Fathima M	0	2	0	1	2	0	2	9	5	7	28	2	1	2	0	1	2	0	7	7	8	30
3	311817104003	Asif Fayaz S	2	2	1	2	2	2	1	6	8	9	35	1	2	0	2	0	2	2	6	8	9	32
4	311817104004	Dinesh D	1	2	0	2	0	2	2	9	9	6	33	2	1	2	1	0	2	1	7	9	9	34
5	311817104005	Fahima S	2	2	2	1	2	2	2	6	7	2	28	2	0	2	1	2	2	1	3	3	2	18
6	311817104006	Fahira S	2	1	0	1	2	1	0	6	5	9	27	1	0	0	2	0	1	1	4	0	6	15
7	311817104009	Jai Balaji V	2	2	1	1	0	2	2	5	8	9	32	2	0	2	1	0	2	2	7	7	7	30
8	311817104010	Jasir Hussain S	2	2	2	1	2	2	1	4	7	5	28	2	2	2	0	2	1	2	6	0	4	21
9	311817104011	Javid Aslam J	1	2	1	1	2	0	0	8	4	6	25	2	1	2	2	0	0	2	6	7	7	29
10	311817104012	Kesavan H	1	2	2	1	2	0	0	8	4	6	26	2	2	1	2	2	2	1	8	7	6	33
11	311817104013	Manoj K	2	2	1	2	1	2	2	4	3	4	23	2	1	2	2	2	0	2	5	4	5	25
12	311817104014	Mohamed Fayaz P R	0	1	2	1	0	0	2	6	5	7	24	2	2	1	2	1	2	2	5	7	3	27
13	311817104015	Mohamed Furose H	2	2	1	2	1	2	1	4	6	6	27	2	1	2	1	1	1	2	3	3	6	22
14	311817104016	Mohamed Nazeer A	2	1	2	1	0	1	2	0	7	6	22	2	1	2	2	0	0	2	6	7	5	27
15	311817104017	Mohamed Riyaz M A	1	2	2	1	2	0	0	8	4	6	26	1	2	0	2	0	2	0	8	3	7	25
16	311817104018	Mohamed Sajed S	2	1	2	1	0	1	2	8	7	6	30	2	1	2	2	2	0	2	7	5	8	31
17	311817104019	Mohamed Suhail M	2	1	1	0	1	2	1	5	7	8	28	2	1	2	1	0	1	0	5	6	6	24
18	311817104020	Mohammed Sulaiman B	2	2	1	2	2	2	1	5	6	4	27	2	2	1	2	1	2	2	5	7	9	33
19	311817104021	Najeetha Banu A	2	1	2	1	0	1	2	0	8	6	23	2	2	1	2	2	2	1	9	7	5	33
20	311817104022	Naveen Kumar S	2	1	2	2	0	0	2	5	6	7	27	1	2	0	2	0	2	2	8	2	6	25
21	311817104023	Nithyadarshni S	1	2	0	2	0	2	2	5	1	9	24	2	2	1	2	2	2	1	5	5	3	25
22	311817104024	Rahamathullah K	2	2	1	2	2	2	1	6	7	7	32	2	2	1	2	1	2	1	7	6	8	32
23	311817104025	Rahumangani R	2	2	0	1	0	2	2	5	6	8	28	2	2	0	1	0	2	2	7	3	8	29
24	311817104026	Ramesh S	2	2	1	2	0	0	2	6	7	6	28	1	2	0	2	0	2	1	8	1	8	31
25	311817104027	Sabeer Ahamed S	2	1	2	1	0	1	2	0	9	6	24	2	1	2	1	0	1	2	0	6	7	25
26	311817104028	Santhoshraja L	2	2	1	2	0	2	1	5	7	7	29	1	2	0	2	0	2	2	8	1	5	23
27	311817104029	Selciya J	2	1	2	2	0	0	2	8	7	7	31	2	1	2	1	0	1	1	0	8	6	22
28	311817104030	Shahid Yaaser J	1	2	0	2	0	2	2	5	1	4	19	2	2	1	2	1	2	1	0	4	4	19
29	311817104031	Soundarya M	2	2	1	2	1	2	0	3	3	5	21	2	1	2	2	0	0	2	4	5	2	20
30	311817104032	Syed Sahir Ahmed K	1	2	0	2	0	2	2	2	1	7	19	2	2	0	1	0	2	1	2	2	2	14
31	311817104034	Venkatesan S	2	2	1	2	1	2	0	5	7	5	27	2	1	2	2	0	0	2	2	0	4	15

PRINCIPAL
MOHAMED SATHAK A J COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (GNR), Siruseri, Tamil Nadu
 Chennai - 601 103.

INTERNAL ASSESMENT			INTERNAL ASSESMENT - III											INTERNAL ASSESMENT - IV										
CO No.			CO2	CO3	CO3	CO3	CO3	CO3	CO3	CO3	CO3	CO3	CO3	CO4	CO4	CO4	CO4	CO4	CO4	CO4	CO4	CO4	CO4	CO4
S.No	REG NO	NAME	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB1	PB2	PC1	Total	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB1	PB2	PC1	Total
			2	2	2	2	2	2	2	12	12	12	50	2	2	2	2	2	2	2	12	12	12	50
1	311817104001	Aayisha M	2	1	2	1	0	1	2	4	6	6	25	1	2	1	2	1	2	1	5	7	6	28
2	311817104002	Afroze Fathima M	2	2	1	2	2	2	1	5	5	8	30	1	1	2	0	2	2	1	6	9	8	32
3	311817104003	Asif Fayaz S	1	0	1	2	2	2	2	4	6	9	29	2	0	1	1	1	1	2	7	9	9	33
4	311817104004	Dinesh D	2	1	2	0	1	2	2	9	6	9	34	2	2	1	2	1	2	2	7	7	9	35
5	311817104005	Fahima S	2	2	1	2	2	2	1	5	5	9	31	2	0	2	1	2	2	2	3	3	3	19
6	311817104006	Fahira S	2	1	2	1	0	1	1	0	7	6	21	2	0	1	1	1	2	2	2	2	2	15
7	311817104009	Jai Balaji V	2	2	0	1	0	2	1	9	9	8	34	2	2	2	1	0	2	2	5	3	2	21
8	311817104010	Jasir Hussain S	2	2	2	1	2	1	1	6	4	4	25	2	1	2	1	2	1	0	6	5	9	29
9	311817104011	Javid Aslam J	1	2	1	2	1	2	0	4	4	3	20	2	1	1	1	1	1	2	3	2	5	19
10	311817104012	Kesavan H	2	2	1	2	1	2	2	4	6	4	26	2	2	1	2	1	2	2	2	2	6	22
11	311817104013	Manoj K	1	2	0	2	0	2	2	6	5	6	26	1	2	0	1	0	0	2	3	4	8	21
12	311817104014	Mohamed Fayaz P R	2	2	0	1	0	2	2	4	5	4	22	2	1	2	2	0	0	2	7	6	7	29
13	311817104015	Mohamed Furose H	2	1	2	2	2	0	2	6	7	7	31	2	1	2	1	0	1	2	7	8	6	30
14	311817104016	Mohamed Nazeer A	1	2	0	2	0	2	2	6	5	4	24	1	1	2	2	0	0	2	6	7	7	28
15	311817104017	Mohamed Riyaz M A	2	2	0	1	0	1	2	4	5	5	22	2	1	2	1	0	1	2	5	0	5	19
16	311817104018	Mohamed Sajed S	2	2	1	2	1	2	1	9	7	9	36	1	2	0	2	0	2	2	6	7	6	28
17	311817104019	Mohamed Suhail M	1	2	0	2	0	0	2	5	6	6	24	2	1	2	2	0	0	2	6	5	7	27
18	311817104020	Mohammed Sulaiman B	1	2	0	2	0	2	2	6	5	6	26	2	2	0	1	0	2	2	5	7	8	29
19	311817104021	Najeeha Banu A	1	2	0	2	0	0	2	7	8	5	27	2	2	1	2	1	2	2	6	8	7	33
20	311817104022	Naveen Kumar S	2	2	1	2	2	2	1	6	6	8	32	2	1	2	1	0	1	2	7	7	6	29
21	311817104023	Nithyadarshni S	1	2	0	2	0	2	2	6	2	8	25	2	2	1	2	1	2	2	9	7	4	32
22	311817104024	Rahamathullah K	2	2	0	1	0	2	2	7	6	9	31	2	1	2	2	0	0	2	6	9	7	31
23	311817104025	Rahumangani R	1	2	0	2	0	0	2	7	8	8	30	2	2	1	2	1	2	2	8	8	9	37
24	311817104026	Ramesh S	2	2	1	2	1	2	2	4	7	9	32	2	1	2	2	0	0	2	8	7	7	31
25	311817104027	Sabeer Ahamed S	1	2	0	2	0	2	2	5	1	6	21	2	2	1	2	1	2	2	3	3	9	27
26	311817104028	Santhoshraja L	2	1	2	2	0	0	2	6	7	7	29	1	2	0	2	0	2	2	4	5	7	25
27	311817104029	Selciya J	2	2	1	2	2	2	1	4	4	4	24	2	0	1	0	1	2	2	4	4	4	20
28	311817104030	Shahid Yaaser J	1	2	0	2	0	2	2	5	2	8	24	1	2	0	2	0	2	2	4	5	8	26
29	311817104031	Soundarya M	2	2	0	1	0	2	2	5	6	4	24	2	1	2	2	0	0	2	5	3	3	20
30	311817104032	Syed Sahir Ahmed K	1	2	0	2	0	2	2	6	3	5	23	1	2	0	2	0	2	2	3	4	3	19
31	311817104034	Venkatesan S	1	2	0	2	0	2	2	6	2	6	23	2	2	1	2	1	2	2	5	4	4	25


PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

INTERNAL ASSESMENT			INTERNAL ASSESMENT - V										Activities- Assignment/Tutorial/MCQ/Quiz/Mini Proj					
CO No.			CO5	CO5	CO5	CO5	CO5	CO5	CO5	CO5	CO5		Quiz	Assignment	Assignment	Roleplay	Assignment	
S.No	REG NO	NAME	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PB1	PB2	PC1	Total	A-I	A-II	A-III	A-IV	A-V
			2	2	2	2	2	2	2	12	12	12	50	10	10	10	10	10
1	311817104001	Aayisha M	1	1	2	1	2	1	2	6	6	7	29	70%	70%	80%	70%	80%
2	311817104002	Afroze Fathima M	1	2	0	2	1	1	2	6	8	8	31	80%	60%	70%	60%	70%
3	311817104003	Asif Fayaz S	1	2	2	1	2	2	1	7	8	10	36	70%	80%	80%	70%	80%
4	311817104004	Dinesh D	2	1	2	1	2	2	1	10	9	9	39	70%	70%	70%	80%	70%
5	311817104005	Fahima S	2	2	0	2	1	1	2	2	4	0	16	50%	50%	50%	50%	60%
6	311817104006	Fahira S	1	1	2	1	0	0	1	3	1	4	14	60%	60%	65%	50%	55%
7	311817104009	Jai Balaji V	2	2	1	1	1	2	2	1	2	2	16	60%	60%	50%	60%	70%
8	311817104010	Jasir Hussain S	2	1	2	2	2	1	2	4	5	4	25	50%	70%	60%	70%	55%
9	311817104011	Javid Aslam J	2	0	1	1	1	1	2	2	2	0	12	50%	60%	50%	50%	55%
10	311817104012	Kesavan H	2	1	2	2	0	0	0	5	5	2	19	70%	70%	60%	60%	60%
11	311817104013	Manoj K	2	1	2	1	0	1	2	7	7	6	29	55%	60%	50%	60%	55%
12	311817104014	Mohamed Fayaz P R	2	1	2	1	0	1	2	6	7	6	28	70%	80%	80%	70%	80%
13	311817104015	Mohamed Furose H	2	1	2	2	1	2	2	6	7	7	32	70%	70%	70%	80%	70%
14	311817104016	Mohamed Nazeer A	2	1	2	1	2	1	2	7	8	6	32	80%	70%	70%	85%	70%
15	311817104017	Mohamed Riyaz M A	2	2	1	0	1	2	0	9	7	8	32	70%	70%	60%	70%	70%
16	311817104018	Mohamed Sajed S	2	1	2	2	0	1	2	3	3	7	23	65%	55%	50%	50%	50%
17	311817104019	Mohamed Suhail M	2	1	2	1	0	1	1	6	3	6	23	70%	55%	60%	60%	60%
18	311817104020	Mohammed Sulaiman B	2	1	2	1	0	1	2	5	2	4	20	60%	60%	50%	70%	70%
19	311817104021	Najeeha Banu A	2	2	0	1	0	2	2	7	6	8	30	80%	70%	80%	70%	80%
20	311817104022	Naveen Kumar S	2	1	2	2	0	0	2	7	7	7	30	70%	60%	70%	50%	70%
21	311817104023	Nithyadarshni S	2	2	1	2	1	2	2	6	6	7	31	70%	70%	80%	70%	80%
22	311817104024	Rahamathullah K	2	0	2	1	0	1	1	9	8	6	30	80%	60%	80%	80%	70%
23	311817104025	Rahumangani R	2	1	2	2	0	0	2	8	9	7	33	50%	60%	80%	70%	80%
24	311817104026	Ramesh S	2	1	2	2	1	2	2	8	10	9	39	70%	70%	70%	80%	60%
25	311817104027	Sabeer Ahamed S	2	2	1	2	1	2	2	4	5	6	27	50%	50%	50%	50%	50%
26	311817104028	Santhoshraja L	2	1	2	1	0	1	2	0	4	6	19	50%	50%	80%	50%	80%
27	311817104029	Selciya J	1	2	0	2	0	2	1	4	1	4	17	60%	80%	80%	70%	75%
28	311817104030	Shahid Yaaser J	2	2	1	2	1	2	0	5	6	4	25	70%	75%	80%	75%	70%
29	311817104031	Soundarya M	2	2	0	1	0	2	1	3	4	8	23	60%	60%	50%	60%	70%
30	311817104032	Syed Sahir Ahmed K	2	1	2	1	0	1	2	0	5	6	20	60%	55%	60%	70%	60%
31	311817104034	Venkatesan S	1	2	0	2	0	2	2	5	5	7	26	60%	60%	60%	50%	70%

PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

INTERNAL ASSESMENT				CO1	CO2	CO3	CO4	CO5	Univ Grade
S.No	REG NO	NAME	CO No.						
1	311817104001	Aayisha M		47.83%	48.15%	50.00%	56.00%	58.00%	A+
2	311817104002	Afroze Fathima M		54.35%	61.11%	60.00%	64.00%	62.00%	B
3	311817104003	Asif Fayaz S		67.39%	66.67%	58.00%	66.00%	72.00%	B+
4	311817104004	Dinesh D		67.39%	66.67%	68.00%	70.00%	78.00%	A+
5	311817104005	Fahima S		54.35%	38.89%	62.00%	38.00%	32.00%	B
6	311817104006	Fahira S		52.17%	33.33%	42.00%	30.00%	28.00%	B
7	311817104009	Jai Balaji V		67.39%	57.41%	68.00%	42.00%	32.00%	B+
8	311817104010	Jasir Hussain S		54.35%	44.44%	50.00%	58.00%	50.00%	B
9	311817104011	Javid Aslam J		47.83%	59.26%	40.00%	38.00%	24.00%	B
10	311817104012	Kesavan H		50.00%	66.67%	52.00%	44.00%	38.00%	B
11	311817104013	Manoj K		43.48%	51.85%	52.00%	42.00%	58.00%	B
12	311817104014	Mohamed Fayaz P R		50.00%	51.85%	44.00%	58.00%	56.00%	B
13	311817104015	Mohamed Furose H		52.17%	46.30%	62.00%	60.00%	64.00%	B
14	311817104016	Mohamed Nazeer A		45.65%	51.85%	48.00%	56.00%	64.00%	B+
15	311817104017	Mohamed Riyaz M A		50.00%	51.85%	44.00%	38.00%	64.00%	B+
16	311817104018	Mohamed Sajed S		63.04%	59.26%	72.00%	56.00%	46.00%	B+
17	311817104019	Mohamed Suhail M		58.70%	46.30%	48.00%	54.00%	46.00%	B
18	311817104020	Mohammed Sulaiman B		50.00%	68.52%	52.00%	58.00%	40.00%	B
19	311817104021	Najeeha Banu A		47.83%	62.96%	54.00%	66.00%	60.00%	B+
20	311817104022	Naveen Kumar S		54.35%	50.00%	64.00%	58.00%	60.00%	B+
21	311817104023	Nithyadarshni S		47.83%	50.00%	50.00%	64.00%	62.00%	B+
22	311817104024	Rahamathullah K		60.87%	66.67%	62.00%	62.00%	60.00%	B+
23	311817104025	Rahumangani R		58.70%	55.56%	60.00%	74.00%	66.00%	B
24	311817104026	Ramesh S		56.52%	55.56%	64.00%	62.00%	78.00%	B
25	311817104027	Sabeer Ahamed S		50.00%	40.74%	42.00%	54.00%	54.00%	B
26	311817104028	Santhoshraja L		58.70%	46.30%	58.00%	50.00%	38.00%	B
27	311817104029	Selciya J		63.04%	44.44%	48.00%	40.00%	34.00%	B+
28	311817104030	Shahid Yaaser J		36.96%	38.89%	48.00%	52.00%	50.00%	B
29	311817104031	Soundarya M		39.13%	42.59%	48.00%	40.00%	46.00%	B
30	311817104032	Syed Sahir Ahmed K		36.96%	29.63%	46.00%	38.00%	40.00%	B
31	311817104034	Venkatesan S		52.17%	33.33%	46.00%	50.00%	52.00%	B
14	16	17	20	22	18	19	21	19	31
31	31	31	31	31	31	31	31	31	31
45.16%	51.61%	54.84%	64.52%	70.97%	58.06%	61.29%	67.74%	61.29%	
COi Attainment %-IA+AA%(80+20)				67.10%	55.48%	59.35%	65.16%	61.94%	
COi Attainment Level				3	2	2	2	2	
CO Attainment - Internal				61.81%					
CO Attainment - External (Univ Pass %)				100%					
CO Attainment				92.36					

	CO1	CO2	CO3	CO4	CO5
TARGET	50%	50%	50%	50%	50%
ATTAINMENT	67%	55%	59%	65%	62%

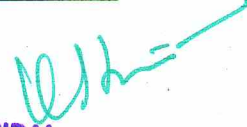

PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

PO Attainment for Course - Direct																
Department: Computer Science and Engineering				Year/Sem: III/VI						Academic Year:2019-2020						
Subject		CS8602 / Compiler Design														
CO-PO matrices of course as given in 3.1.2(SAR)																
		PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO1	PSO2	
C313.1		3	2	2	0	0	0	0	2	2	0	0	3	3	2	
C313.2		1	2	3	0	0	0	0	1	2	0	0	0	3	3	
C313.3		1	3	3	0	0	0	0	1	0	0	0	0	1	3	
C313.4		3	3	2	0	0	0	0	1	0	0	0	0	3	2	
C313.5		3	3	3	0	0	0	0	1	2	0	0	2	2	2	
CO-PO Attainment of the course for Internal assessment																
COs	CO Attainment, %	CO Result - Y/N	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C313.1	67%	Y	67%	45%	45%	0%	0%	0%	0%	45%	45%	0%	0%	67%	67%	45%
C313.2	55%	Y	18%	37%	55%	0%	0%	0%	0%	18%	37%	0%	0%	0%	55%	55%
C313.3	59%	Y	20%	59%	59%	0%	0%	0%	0%	20%	0%	0%	0%	0%	20%	59%
C313.4	65%	Y	65%	65%	43%	0%	0%	0%	0%	22%	0%	0%	0%	0%	65%	43%
C313.5	62%	Y	62%	62%	62%	0%	0%	0%	0%	21%	41%	0%	0%	41%	41%	41%
Average			46%	54%	53%	0%	0%	0%	0%	25%	25%	0%	0%	22%	50%	49%
CO-PO Attainment of the course for University																
Course Name		Pass %	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		100%	100%	100%	100%	0%	0%	0%	0%	100%	100%	0%	0%	100%	100%	100%
CO-PO Attainment of the course - Direct																
Attainment %			84%	86%	86%	0%	0%	0%	0%	78%	77%	0%	0%	77%	85%	85%
Attainment Level			3	3	3	0	0	0	0	3	3	0	0	3	3	3


PRINCIPAL
 MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 103.

PO Attainment for Course - Indirect																
Department: Computer Science and Engineering				Year/Sem: III/VI				Academic Year:2019-2020								
Subject Code/Name: CS8602/ Compiler Design				Faculty Names:												
CO-PO matrices of course as given in 3.1.2(SAR)																
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO1	PSO2		
C3131.1	3	2	2	0	0	0	0	2	2	0	0	3	3	2		
C3131.2	1	2	3	0	0	0	0	1	2	0	0	0	3	3		
C3131.3	1	3	3	0	0	0	0	1	0	0	0	0	1	3		
C3131.4	3	3	2	0	0	0	0	1	0	0	0	0	3	2		
C3131.5	3	3	3	0	0	0	0	1	2	0	0	2	2	2		
CO-PO Attainment of the course for CES																
COs	CES Attainment, %	CO Result - Y/N	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C313.1	78%	Y	78%	52%	52%	0%	0%	0%	0%	52%	52%	0%	0%	78%	78%	52%
C313.2	70%	Y	23%	47%	70%	0%	0%	0%	0%	23%	47%	0%	0%	0%	70%	70%
C313.3	62%	Y	21%	62%	62%	0%	0%	0%	0%	21%	0%	0%	0%	0%	21%	62%
C313.4	60%	Y	60%	60%	40%	0%	0%	0%	0%	20%	0%	0%	0%	0%	60%	40%
C313.5	61%	Y	61%	61%	61%	0%	0%	0%	0%	20%	41%	0%	0%	41%	41%	41%
Average			49%	56%	57%	0%	0%	0%	0%	27%	28%	0%	0%	24%	54%	53%
CO-PO Attainment of the course from Exit Survey																
Course Name	Attainment %	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	
	80%	80%	80%	80%	0%	0%	0%	0%	80%	80%	0%	0%	80%	80%	80%	
CO-PO Attainment of the course - InDirect																
Attainment %			55%	61%	62%	0%	0%	0%	0%	38%	38%	0%	0%	35%	59%	58%
Attainment Level			2	2	2	0	0	0	0	2	2	0	0	2	2	2


PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 103.

[illegible]

CS8492 – DATABASE MANAGEMENT SYSTEMS

Date:04/01/2021

- To learn the fundamentals of data models and to represent a database system using ER diagrams
- To study SQL and relational database design
- To understand the internal storage structures using different file and indexing techniques which will help in physical DB design
- To understand the fundamental concepts of transaction processing concurrency control techniques and recovery procedures
- To have an introductory knowledge about the storage and Query processing Techniques

CO1	:	Analyze the relational database theory, and be able to write relational algebra expressions for queries
CO2	:	Map ER model to Relational model to perform database design properly
CO3	:	Create the database using concurrent and transaction process and write queries and compare different strategies of Transaction control
CO4	:	Compare and contrast various indexing strategies in different database systems
CO5	:	Discuss about advanced database concept

K6-Create

Sl. No.	Question	CO	KS	Answer
1.	What are the states of Transaction?	CO3	K1	A/M'19
2.	What is meant by log based Recovery?	CO3	K2	A/M'19
3.	What is serializability?	CO3	K1	A/M'18
4.	State the difference between shared lock and exclusive lock?	CO3	K1	A/M'18
5.	Outline the need for concurrency control	CO3	K3	A/M'20
6.	Define ACID properties	CO3	K1	A/M'21
7.	List four conditions for deadlocks	CO3	K1	N/D'19

8	(a) Explain in detail about serializability with suitable examples	12	CO3	K2	A/M'19
---	--	----	-----	----	--------

(b) Define the term recoverable schedule and cascadeless schedules	12	CO3	K1	N/D'19
--	----	-----	----	--------

9 (a) What is concurrency control? Explain the two phase locking protocol with examples 12 CO3 K4 A/M'18

(b) Discuss the violation caused by each of the following lost read problem, dirty read and no repeatable and phantom read with examples

10 (a) Explain in detail about deadlock

(b) Explain in detail about ACID properties of Transaction	12	CO3	K1	N/D'19
--	----	-----	----	--------

Approved By

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING, Chennai - 603103

INDIVIDUAL SUBJECT MARK SHEET - IAT I
Department of INFORMATION TECHNOLOGY

Sub.Code/Sub.Name: DATABASE MANAGEMENT SYSTEMS/CS- 8492

Year/Sem: II/III

Name of the Faculty: RESHMA FARHIN J

Date of exam: 4.1.2021

Sl. no.			Reg No.			Name			Question No.													Quiz		Other activities		Total (100)
PART A									PART B				PART C				25	25								
7 X 2 = 14									2 X 12 = 24				1X12=12													
1	2	3	4	5	6	7	1(a)	1(b)	2(a)	2(b)	3(a)	3(b)														
1	311819205001	AMEER SHERIFF A	1	1	0	1	0	0	0		7	6	0	0	16	21	53									
2	311819205002	ASHIP AKASH.T	2	2	0	1	1	0	0	6		7	8		17	20	64									
3	311819205003	DARVISH MOHAIDEEN. S	2	1	0	2	1	1	1	4		5	6		10	9	42									
4	311819205004	FAIZAL. S	0	0	0	1	1	0	0	6			5	6	11	10	40									
5	311819205005	FARHAT JABEEN A	2	2	2	1	1	2	2	3		9	9		22	12	67									
6	311819205006	FAZIL. G	1	1	0	1	0	0	0		6	5		4	19	16	53									
7	311819205007	FAZIYA. R	2	2	0	1	1	0	0	6		4	9		23	17	65									
8	311819205008	GANGA. M	2	1	0	2	1	1	1	4		5	6		23	20	66									
9	311819205009	LUBNA FATHIMA .N	0	0	0	1	1	0	0	6			5	6	24	22	65									
10	311819205010	MOHAMED IQRAMULLAH. S	1	1	0	1	1	2	0	3		9	9		18	19	64									
11	311819205011	MOHAMED MOOSA M	1	1	2	0	0	1	1	6		7		8	21	16	64									
12	311819205012	MOHAMMED NAZEEM.A	1	2	3	4	5	6	7	6			5	6	22	16	83									
13	311819205013	MOHAMED YUNUS.P	1	1	0	1	0	0	0		7	6	0	0	21	18	55									
14	311819205015	MOHAMMED FAIZAL KHAN .M	2	2	0	1	1	0	0	6		7	8		16	20	63									
15	311819205016	MOHAMMED SAAD.K	2	1	0	2	1	1	1	4		5	6		18	20	61									
16	311819205017	MD ZAID.N	0	0	0	1	1	0	0	6			5	6	22	22	63									
17	311819205018	MURALI K	2	2	2	1	1	2	2	3		9	9		22	21	76									
18	311819205019	MUTHU RAJA. M	1	1	0	1	0	0	0		6	5		4	17	15	50									
19	311819205021	NABEEL.M	2	2	0	1	1	0	0	6		4	9		18	15	58									
20	311819205022	NAVEETH BASHA. A	2	1	0	2	1	1	1	4		5	6		14	17	54									
21	311819205023	NIZAMUL HAQ. S	0	0	0	1	1	0	0	6			5	6	23	23	65									
22	311819205024	PARNANDHI ROHAN	1	1	0	1	1	2	0	3		9	9		24	23	74									
23	311819205025	PRAVEEN KUMAR.S	1	1	2	0	0	1	1	6		7		8	24	23	74									
24	311819205026	SAMEERA BANU	2	1	0	2	1	1	1	4		5	6		22	20	65									
25	311819205027	SHAHEENAH. M	0	0	0	1	1	0	0	6			5	6	21	20	60									
26	311819205028	SHAWKATHULLA S.J	2	2	2	1	1	2	2	3		9	9		18	18	69									
27	311819205030	SUGAIEL FATHIMA.N	1	1	0	1	0	0	0		6	5		4	23	22	63									
28	311819205031	VIGNESH S	2	2	0	1	1	0	0	6		4	9		15	16	56									
29	311819205301	PEER AZIM MEERAN	2	1	0	2	1	1	1	4		5	6		13	12	48									
30	311819205302	RAJESH	0	0	0	1	1	0	0	6			5	6	12	14	45									

*Mark "A" for absent

Total no. of students: 30
No of students present: 30
No. of students absent: 0
No. of students pass: 30
No. of students fail: 0
Pass percentage: 100


Subject in-charge

Format no: RA 01

Rev.no. 1.0


PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34 Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.
Rev. Date: 04.01.21

Sample Screen shot for MCQ

 HCI-IAT1  

Questions Responses **25** Settings

Total points: 25

Section 1 of 2

HCI

B.E/B.TECH DEGREE
Seventh Semester
Computer Science and Engineering/ Information Technology
CS8079 HUMAN COMPUTER INTERACTION
(Regulations 2017)

Email *

Valid email

This form is collecting emails. [Change settings](#)

Student Name *

Short answer text




PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

1. HCI refers to *

- ☐ Host client interface
- ☐ Human computer interaction
- ☐ Human client interface
- ☐ Host client interaction

2. HCI focus on of computer technology, the interaction of users and computer. *

- ☐ Design
- ☐ Strategy
- ☐ Interaction
- ☐ Observation

3. Which is the most important aspect to HCI *



2

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34 Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

☐ None of the above

4. Eye is the mechanism for receiving light and transforming it into *

☐ Power

☐ Light

☐ Sound

☐ Electrical energy

5. Size of the image is specified as a *

☐ Law of consistency

☐ Visual acuity

☐ Visual angle

☐ Perception



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK
A J COLLEGE OF ENGINEERING
SIRUSERI IT PARK OMR CHENNAI 603 103

RECORD OF CLASS WORK

Academic Year: 2020 - 2021

Semester Commencement: 17. 08. 2020

Semester last working day: 15. 12. 2020.

PRINCIPAL

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Name of the Faculty : V. SARANYA

Designation : AP/CSE

Department : Computer Science

Subject Code & Name : CS8391 & Data Structures

Semester : III

Degree & Branch : B.F & CSE

FACULTY TIME TABLE

Period	1	2	3		4	5	6		7	8	9
Day	8.15 - 9.00	9.00 - 9.45	9.45 - 10.30	10.30 - 10.45	10.45 - 11.30	11.30 - 12.15	12.15 - 1.00	1.00 - 1.45	1.45 - 2.30	2.30 - 3.15	3.15 - 4.00
MON				T E A B R E A K				L U N C H B R E A K			
TUE											
WED											
THU											
FRI											

CLASS TIME TABLE

Period \ Day	1	2	3		4	5	6		7	8	9
	8.15	9.00	9.45	10.30	10.45	11.30	12.15	1.00	1.45	2.30	3.15
	-	-	-	-	-	-	-	-	-	-	-
	9.00	9.45	10.30	10.45	11.30	12.15	1.00	1.45	2.30	3.15	4.00
MON	DM	DS	DPSD	T E A B R E A K	CE	OOPS	DM	L U N C H B R E A K	K OOPS / DIGITAL LAB		
TUE	DS	DPSD	DM		OOPS	CE	DS				
WED	DPSD	CE	OOPS		DM	DS	DPSD		K DS Lab		
THU	CE	OOPS	DM		DS	DPSD	CE				
FRI	OOPS	Inter Personal Skills			DPSD	DM	OOPS		K OOPS / DIGITAL LAB		

COURSE DELIVERY ANALYSIS

Unit	Total Periods		Reason for Deviation (if any)	Faculty Signature	HOD Signature	Hear Academe / Prin
	As per Syllabus	Conducted				
1.	9	9	No Deviation	V.S.	M.B.	Sh
2	9	9	No Deviation	V.S.	M.B.	Sh
3	9	10	Students Need More Explanation	V.S.	M.B.	Sh
4	9	9	No Deviation	V.S.	M.B.	Sh
5	9	10	Students Need More Explanation	V.S.	M.B.	Sh

LESSON PLAN

Unit No & Title: Linear Data Structures - LIST

[illegible]

PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
us 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Content Beyond Syllabus

RED Tree.

ICT Tools Used (Online Courses / Animation Videos / PPT/ Demos)

Animation video (Circular, Singular, double)

Quiz / MCQ / Puzzles / Assignments / Models / Mini Project / Role Play / If Any

MCQ Questions (List ADT, Array based Implementation)

Faculty

HOD


Academic Auditor /Principal

LESSON PLAN

Unit No & Title: UNIT - II
Linear Data Structures - STACKS, Queues -

S.No	Planned		Topics	Conducted	
	Date	Period		Date	Period
1.	01.09	04	STACK ADT * operations * Applications	01.09.21	04
2.	01.09	05	Evaluating Arithmetic Expressions	01.09.21	05
3.	02.09	02	Conversion of Infix to postfix Expression.	02.09.21	02
4.	02.09	04	Queue ADT- Operations	02.09.21	04
5.	03.09	01	Circular Queue	03.09.21	01
6.	06.09	01	Priority Queue	06.09.21	01
7.	06.09	02	Deque	06.09.21	02
8.	07.09	06	Type of Dequeue Application of Dequeue	07.09.21	06
9.	08.09	05	Application of Queue,	08.09.21	05
			Content Beyond Syllabus		
			Deque applications priority scheduling		
ICT Tools Used (Online Courses / Animation Videos / PPT/ Demos)					
Animation videos (Stack, Queue)					
Quiz / MCQ / Puzzles / Assignments / Models / Mini Project / Role Play / If Any					
Role Play					

Faculty

HOD

Academic Auditor / Principal

MRS. JAMES SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai - 603 103.

LESSON PLAN

Unit No & Title: Unit 3, Non Linear Data Structures - Trees

[illegible]

ICT Tools Used (Online Courses / Animation Videos / PPT/ Demos)

PPT (Tree, Binary Search Tree, Expression Tree)

Quiz / MCQ / Puzzles / Assignments / Models / Mini Project / Role Play / If Any

Quiz

Faculty

HOD

Academic Auditor /Principal

LESSON PLAN

Unit No & Title: Unit - IV & Non Linear Data Structures - Graphs

[illegible]

ICT Tools Used (Online Courses / Animation Videos / PPT/ Demos)

Ppt (topological sort)

Quiz / MCQ / Puzzles / Assignments / Models / Mini Project / Role Play / If Any

MCC (Breadth First Traversal)
(depth First Traversal)

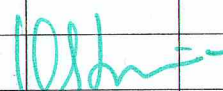
Faculty

HOD


Academic Auditor /Principal

LESSON PLAN

Unit No & Title: UNIT 5 - SEARCHING, SORTING AND HASHING TECHNIQUES

S.No	Planned		Topics	Conducted	
	Date	Period		Date	Period
1.	1/11/21	02	Searching - Linear Search	1/11/21	02
2.	2/11/21	01	Binary Search	2/11/21	01
3.	3/11/21	05	Sorting - Bubble Sort	3/11/21	05
4.	4/11/21	04	Selection Sort	4/11/21	04
5.	5/11/21	06	Insertion Sort, Shell Sort	5/11/21	06
6.	8/11/21	02	Radix Sort, Hashing	8/11/21	02
7.	9/11/21	01	Hash Functions.	9/11/21	01
8.	9/11/21 10/11/21	02 05	Separate Chaining, open Addressing.	9/11/21 10/11/21	02 05
9.	12/11/21	05	Rehashing, Extendible Hashing.	12/11/21	05
			 PRINCIPAL MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING 34, Rajiv Gandhi Road (OMR), Siruseri, 1 Park Chennai-603 103.		
			Content Beyond Syllabus Paging (hash table)		

ICT Tools Used (Online Courses / Animation Videos / PPT/ Demos)

Animation video (Selection Sort, Bubble Sort)

Quiz / MCQ / Puzzles / Assignments / Models / Mini Project / Role Play / If Any

Role Play (Hashing)

Faculty

HOD

Academic Auditor / Principal

ATTENDANCE

S.No	Register No	Name	Month	08	08	08	08	08	08	08	08	08	08	08	08
			Date	23	23	23	24	24	25	25	25	26	26	26	26
			Period	2	3	5	1	2	6	03	05	04	02	05	
1.	311820104001	ABDUL KADAR JAILANI. J		P	P	P	P	P	a	1	1	1	1	1	
2.	311820104002	ABINAYA BHARATHI. M		P	1	1	1	1	1	1	1	1	1	1	
3.	311820104003	ABISH K		1	1	1	1	1	1	1	a	1	a	1	
4.	311820104004	ABRAR MUSHARAF. P		1	1	1	1	1	1	1	1	1	1	1	
5.	311820104005	ALTHAF. J		1	1	1	1	1	1	1	1	a	1	1	
6.	311820104006	ARSATH KHAN. A		a	a	a	1	1	1	1	1	a	1	1	
7.	311820104007	ARSATH AHMED. M. Y		1	1	1	1	1	1	1	a	1	1	1	
8.	311820104008	ARUN		1	1	1	1	1	1	1	a	a	a	a	
9.	311820104009	AYSHA THASLIM. A		1	1	1	1	1	1	1	a	1	1	1	
10.	311820104010	DILIPAN. D. W		1	1	1	1	1	1	1	a	1	1	1	
11.	311820104011	ELANJO. V		1	1	1	a	a	1	1	1	1	1	1	
12.	311820104012	ELANJOVAN. W		1	1	1	a	a	1	1	1	1	1	1	
13.	311820104013	IMRAN. H		1	1	1	1	1	1	1	a	1	1	1	
14.	311820104014	JALEEL AHAMED. K		1	1	1	1	1	1	1	1	a	1	1	
15.	311820104015	KARAN. R		1	1	1	1	1	1	1	1	1	1	1	
16.	311820104016	JALITH ADITHYAN. H		1	1	1	1	1	1	1	1	1	1	1	
17.	311820104017	MOHAMED ABDUL KALAM. S		1	1	1	a	a	1	1	1	1	1	1	
18.	311820104018	MOHAMED ASIQ ALI. A		1	1	1	1	1	1	1	1	1	1	1	
19.	311820104019	MOHAMED HANIFA HAARISH. P		1	1	1	1	1	1	1	a	1	1	1	
20.	311820104020	MOHAMED JASHIM. A		a	a	a	1	1	1	1	a	1	1	1	
21.	311820104021	MOHAMED NABEEL. A		1	1	1	1	1	1	1	1	1	1	1	
22.	311820104022	MOHAMED NOWFEES. A		1	1	1	1	1	1	1	1	1	1	1	
23.	311820104023	MOHAMED SALMAN. A		a	a	a	a	a	a	a	a	a	a	a	
24.	311820104024	MOHAMED HASEEB RAKSHAN. P		1	1	1	1	1	1	1	1	1	1	1	
25.	311820104025	MOHAMED KHAJA NAWAZ. A		1	1	1	1	1	1	1	1	1	1	1	
No. Of Absentees				3	3	3	4	4	1	0	4	5	3	2	
Initial of the Faculty				8	8	8	8	8	8	8	8	8	8	8	

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

	10	10	10	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	11	11	11
	04	05	08	12	21	23	25	26	27	28	30	01	02	03	04	05	08	09	10	11	12
	2	6	4	1	4	02	02	06	05	04	05	02	01	05	04	06	02	01	05	04	05
01	/	/	/	a	a	/	/	/	/	/	/	/	/	/	/	/	/	/	a	/	/
2	a	a	/	a	/	a	/	a	/	a	/	/	/	/	/	/	/	/	/	a	a
3	a	/	/	/	/	a	a	/	a	/	/	/	/	/	/	/	/	/	a	/	/
4	/	/	/	a	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a
5	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
6	a	a	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
7	a	/	a	a	/	/	a	/	a	a	/	/	/	/	/	a	/	/	/	/	/
8	/	/	/	a	/	/	/	a	/	a	a	/	/	/	/	a	/	/	/	/	/
9	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a
10	/	/	a	/	/	/	/	a	/	/	/	/	/	/	/	/	/	/	a	/	/
11	/	a	/	/	/	/	a	a	/	/	/	/	/	/	/	/	/	/	/	/	/
12	a	/	/	/	/	a	/	a	/	a	/	a	/	a	/	/	/	/	/	/	/
13	/	/	/	/	/	a	/	a	/	/	/	/	/	/	/	/	/	/	a	a	a
14	a	/	/	/	/	a	a	/	/	a	/	/	/	/	/	/	/	/	a	a	a
15	a	/	/	/	/	a	/	a	/	a	/	/	/	/	/	/	/	/	/	/	/
16	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	a	a
17	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
18	a	/	a	a	/	/	a	/	/	a	/	/	/	/	/	/	/	/	a	a	a
19	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	a	a
20	a	/	/	a	/	a	a	/	/	a	/	/	/	/	/	/	/	/	a	a	a
21	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
22	a	/	a	a	/	a	a	/	a	/	/	/	/	/	/	/	/	/	a	a	a
23	a	a	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a	a	a
24	/	/	/	a	/	a	/	/	/	/	/	/	/	/	/	/	/	/	a	a	/
25	/	a	/	/	a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	a
Total	10	6	5	11	01	12	7	7	0	11	2	1	0	1	0	8	3	0	12	12	
	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88

Total Hours conducted:

11	11	11	11	11	12	12	12										% of Att	U1	U2	U3	U4	EPC	Mode Exam
15	19	22	24	26	2	9	15																
02	04	02	05	04	04	06	05																
1	a	1	1	1	1	a	1										75	65	60	92	92		
1	a	1	1	1	1	a	1										85	78	86	91	91		
1	a	1	1	0D	1	1	1										75	56	61	83	83		
1	1	1	a	1	1	1	1										80	48	65	85	85		
1	a	a	1	1	1	1	1										75	67	89	92	92		
1	1	a	1	1	1	1	1										75	45	55	94	94		
a	1	1	1	a	1	1	1										75	40	58	93	93		
a	1	1	a	a	1	1	1										75	73	50	80	80		
1	1	1	1	1	1	1	1										80	76	88	83	83		
1	1	1	1	a	1	1	1										78	58	69	92	92		
1	1	1	1	1	1	1	1										76	75	79	96	96		
1	1	1	1	a	1	1	1										77	50	76	83	83		
1	1	1	1	1	a	1	1										75	74	56	97	97		
1	a	a	1	1	1	1	1										75	53	57	98	50		
a	a	a	1	a	1	1	1										78	54	66	88	50		
1	1	1	1	0D	1	1	1										78	85	92	99	70		
1	1	1	1	1	a	1	1										80	63	51	96	51		
1	1	1	1	1	a	1	1										75	61	78	94	48		
1	a	1	1	1	1	1	1										78	71	51	93	72		
1	1	1	1	1	a	1	1										78	54	61	92	82		
1	a	1	1	1	1	1	1										85	81	52	83	93		
1	1	1	1	1	1	1	1										75	42	92	50			
1	a	a	1	1	1	1	a										78	71	91	92			
1	1	1	1	a	a	1	1										76	42	75	92	92		
1	1	1	1	1	a	1	1										76	78	60	90	98		
3	9	5	2	7	6	2	1										-						
8	8	8	8	8	8	8	8										8	8	8	8	8		

PRINCIPAL
 MOHAMED SATHAKA J. COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (NMR), Siruseri, IT Park
 Chennai-603 103.

ATTENDANCE

S.No	Register No	Name	Month	08	08	08	08	08	08	08	08	08	08	08	08
			Date	23	23	23	24	24	25	25	25	26	26	26	26
			Period	2	3	5	1	2	1	3	5	02	04	05	05
26.	311820104026	MOHAMED RISWAN. K. R		/	/	/	/	/	a	/	/	/	/	/	/
27	311820104027	MOHAMED SIDDIQUE. C		/	/	/	a	a	/	/	/	/	/	/	/
28	311820104028	MUSHARAF MUBAEEEN. A		/	/	/	/	/	/	/	/	/	/	/	/
29.	311820104029	NAVEEN KUMAR.		/	/	/	/	/	a	a	a	/	/	/	/
30.	311820104030	NITHESH KUMAR. S		/	/	/	/	/	/	/	/	/	/	/	/
31.	311820104031	RASHID. C. K.		/	/	/	/	/	a	a	a	a	a	a	a
32.	311820104032	RISWAN. M		/	/	/	/	/	a	a	a	/	/	/	/
33.	311820104033	SAKTHIVEL K. H		/	/	/	/	/	/	/	/	/	/	/	/
34.	311820104034	SATHISH. S.		/	/	/	/	/	/	/	/	/	/	/	/
35.	311820104035	SHAIKH ZAITH. R		/	/	/	/	/	/	/	/	/	/	/	/
36	311820104036	SULTHAN NIFAN. S		/	/	/	/	/	/	/	/	/	/	/	/
37	311820104037	VASUNATHI. A		/	/	/	/	/	/	/	/	/	/	/	/
38	311820104038	VINITH. D		a	a	a	a	/	/	/	/	/	/	/	/
39.	311820104039	VINITHA. M		/	/	/	/	/	/	/	/	/	/	/	/
40	311820104040	YOGARAJ. S		o	/	a	/	/	/	/	/	/	/	/	/
41.	311820104041	YUVAN. R. K.		/	/	/	/	/	/	/	/	/	/	/	/
42	311820104042	SURYA		/	/	/	/	/	/	/	/	a	a	a	a
43	311820104043	MONISHWARAN ARUNACHALAM		/	/	/	/	/	/	/	/	/	/	/	/
44.	311820104044	S. SURYA KANTH		/	/	/	/	/	/	/	a	a	a	a	a
45	311820104045	BOOMANISH PRASAD. B													
46	311820104046	BHUVANESHWARAN. P													
47	311820104047	ASHAR. A													
48	311820104048	HUDAFERAZ													
49	311820104049	VEERA BATHRAN													
50	311820104050	BHARATH VAG.													
No. Of Absentees				1	1	2	2	1	4	3	3	3	3	3	3
Initial of the Faculty															

Lateral Entry

PRINCIPAL

MOHAMED SATHAK A. J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

[illegible]

	10	10	10	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	11	11	11
	4	5	7	12	21	23	25	26	27	28	30	01	02	03	04	05	08	09	10	11	12
	2	6	4	1	4	02	02	06	05	04	05	02	01	05	04	06	02	01	05	04	05
26	1	1	a	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1	a	a	a	1	a	1	1	1	1	1	1	1	1	a	a	a	1	1	1	1
28	1	a	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	a	a	1	1	a	1	1	1	1	1	1	1	a	a	1	1	1	1	1	1
30	a	a	1	a	1	a	a	1	1	a	1	1	1	1	1	1	1	a	1	1	1
31	1	1	1	a	1	a	a	a	1	1	1	1	1	1	1	1	1	1	1	1	1
32	a	a	1	1	1	a	a	1	1	a	1	1	1	1	1	1	1	1	1	1	1
33	1	1	1	1	1	a	a	1	1	1	1	1	1	a	1	1	a	1	1	1	1
34	1	1	1	a	1	1	a	1	1	1	1	1	1	1	1	1	1	1	1	a	1
35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	a	1
36	1	1	a	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	a	1
37	a	a	a	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	1	1	a	a	1	a	a	a	1	a	1	1	1	a	1	a	1	a	1	1	1
39	1	1	1	1	1	1	a	1	1	1	1	1	1	1	a	1	1	a	1	a	1
40	1	1	1	1	1	a	1	1	1	1	1	1	1	1	1	a	a	1	1	1	1
41	a	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	1	a	1	a	1	a	1	a	1	a	1	1	1	1	1	1	1	a	a	1	1
43	1	1	1	1	1	1	a	1	a	1	1	1	1	1	1	1	1	a	1	1	1
44	1	1	1	a	1	1	a	1	1	1	1	1	1	a	a	1	a	a	1	1	1
45	1	1	1	a	1	1	a	1	1	1	1	1	1	1	1	1	1	a	a	1	a
46	1	1	1	1	1	1	a	1	1	1	1	1	1	1	1	1	a	a	a	1	1
47	a	a	a	1	1	a	a	1	1	a	1	1	1	1	1	1	1	a	a	1	1
48	1	1	1	1	1	a	1	1	1	1	1	1	1	1	1	1	1	a	1	1	1
49	a	a	a	1	1	a	1	1	1	1	1	1	1	1	1	1	1	a	1	1	1
50	1	1	1	a	1	a	1	1	1	1	1	1	1	1	1	1	1	a	1	1	1
51	06	09	09	12	0	13	08	11	0	6	0	0	4	03	03	05	03	17	04	04	01
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

NO OF Absentees

Total Hours conducted:

11	11	11	11	11	12	12	12									% of Att	U1	U2	U3	U4	EPC	Mode Exam
15	19	22	24	26	29	15																
02	04	02	05	04	04	06	05															
1	a	1	a	u	1	1	1									76	70	82	91	82	85	
1	1	1	1	a	a	1	a									75	39	76	85	78	70	
1	1	1	a	1	1	1	1									85	47	68	82	72	75	
1	1	1	1	a	a	1	1									80	68	78	35	70	80	
1	1	1	1	1	1	1	1									85	68	75	80	72	72	
1	a	1	1	1	1	1	1									65	50	56	84	74	73	
1	a	1	1	1	1	1	1									75	40	41	0	92	90	
1	a	1	1	1	1	1	1									73	76	86	92	84	85	
1	1	1	1	0	a	1	1									90	54	80	90	80	72	
1	a	1	1	1	a	1	1									85	76	88	96	92	72	
1	a	1	1	1	1	1	1									80	76	72	92	84	82	
1	1	1	a	1	1	1	1									75	86	60	97	94	70	
a	1	a	1	1	1	1	1									70	77	46	94	88	90	
1	a	1	1	1	a	1	1									60	90	85	96	92	72	
a	1	a	1	a	1	1	1									75	71	53	84	84	80	
1	a	1	a	1	a	1	1									75	77	87	90	92	92	
1	a	1	1	a	a	1	1									70	41	73	78	88	90	
1	a	a	1	a	a	1	1									70	51	79	81	70	70	
1	1	1	1	a	1	1	1									70	51	72	83	70	88	
a	a	1	1	1	a	1	1									70	61	77	84	80	72	
1	1	1	a	a	1	1	1									75	65	76	80	70	72	
1	a	1	1	a	1	1	1									70	50	45	81	80	72	
1	1	1	1	a	1	1	1									75	41	80	85	72	72	
1	a	1	1	a	1	1	1									65	45	65	82	72	73	
1	1	1	1	a	1	1	1									76	54	78	78	71	71	
03	13	03	05	13	09	0	01															
8	8	8	8	8	8	8	8									8	8	8	8	8	8	

[Signature]

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

ATTENDANCE

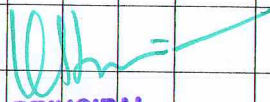
[illegible]

a / a a / a a a / / / / a / a / / /

PRINCIPAL
MOHAMED SATHI A. J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai - 603 103.

[illegible]

																					% of Att	U 1	U 2	U 3	U 4	EPC	Mode Exam
15	17	22	24	26	29	28	9	15																			
02	04	02	05	04	04	04	06	05																			
1	1	1	1	1	1	1	1	1													70	50	65	84	80	75	
1	1	1	1	1	1	1	1	1													60	72	81	82	50	80	



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 103

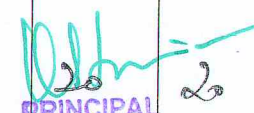
0 1 1 0 1 0 0 2 1





RESULT ANALYSIS

ANALYSIS	U 1	U 2	U 3	U 4	Model Exam	University Exam
Total No of students	52	52	52	52	52	50
No of students appeared	52	52	52	52	52	50
No of student Absent / OD	0	0	0	0	0	0
No of students passed	48	49	52	52	52	50
Pass percentage	90%	87%	100%	100%	100%	100%
No of students failed	04	03	0	0	0	0
% of fail	10%	13%	0%	0%	0%	0%
No of students scored (91% -100%) O						
Grade	10	10	10	10	13	12
No of students scored (81% -90%) A+						
Grade	6	6	6	6	3	4
No of students scored (71% -80%) A Grade						
	4	4	4	4	4	20
No of students scored (61% -70%) B+						
Grade	20	20	20	20	20	10
No of students scored (50% 60%) B Grade						
	18	9	12	12	12	4
No of students scored (< 50%) RA						
	04	03	0	0	0	0


 PRINCIPAL
 MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 103.

Sl. No	Performance Analysis	Faculty Signature	HOD Signature
1	Pass percentage in U 1: 90 %	V. S. /	M. B.
2	Correction measures & Preventive action for U 2 ^{the class} Mentor Students to attend Regularly	V. S. /	M. B.
	Pass percentage after corrective action 20 %	V. S. /	M. B.
	Pass percentage in U 2: 20 %	V. S. /	M. B.
	Correction measures & Preventive action for U 3 Assignment & two Mark Test Conducted	V. S. /	M. B.
	Pass percentage after corrective action 20 %	V. S. /	M. B.
	Pass percentage in U 3: 20 %	V. S. /	M. B.
	Correction measures & Preventive action for U 4 Mentor Students to attend the class Regularly	V. S. /	M. B.
3	Pass percentage after corrective action 20 %	V. S. /	M. B.
4	Pass percentage in U 4: 20 %	V. S. /	M. B.
5	Correction measures & Preventive action for Model Exam Important (5 unit Questions) test Conducted.	V. S. /	M. B.
6	Pass percentage after corrective action 20 %	V. S. /	M. B.
7	Pass percentage in Model Exam: 20 %	V. S. /	M. B.
8	Correction measures & Preventive action for University Exam Counsel Students to give seminar & two Mark Test Conducted.	V. S. /	M. B.
9	Pass percentage after corrective action 20 %	V. S. /	M. B.
10	Pass percentage University Exam 20 %	V. S. /	M. B.
11	If pass % is less than 90% give reason(s): NIL	V. S. /	M. B.
12	Preventive measure suggested		


PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, Tamil Nadu
 Chennai-603 103.

MOHAMED SATHAK A.J COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University) 34, Old Mahabalipuram Road, Egattur,
Chennai – 603 103.

ISO 9001: 2008 Certified Institution

Sponsored By: **MOHAMED SATHAK TRUST, Chennai – 600 034.**



(ACADEMIC YEAR: 2020- 2021)

CS8381- DATA STRUCTURES LABORATORY


PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Name : **SUGAIEL FATHIMA . A**
Register Number : **311819205030**
Department : **Information Technology**
Year / Semester : **II | IIIrd sem**

(ANNA UNIVERSITY: CHENNAI - 600 025)



**MOHAMED SATHAK A.J COLLEGE OF
ENGINEERING**

(Approved by AICTE, New Delhi and Affiliated to Anna
University) 34, Old Mahabalipuram Road, Egattur,
Chennai – 603 103.

ISO 9001: 2008 Certified Institution

Sponsored By: MOHAMED SATHAK TRUST, Chennai – 600 034.

BONAFIDE CERTIFICATE

This is to certify that this is the Bonafide Record of work done by
Mr. /Ms. A. SUGAIEL FATHIMA

Register Number 311819205030 of

II YEAR / III Semester – INFORMATION TECHNOLOGY in the

CS8381 DATA STRUCTURES LABORATORY during the academic year
2020-2021.

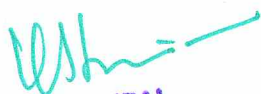
Staff In-Charge

Head of the Department

Submitted for the Anna University B.E Practical Examination held on.

.....

Internal Examiner


PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

External Examiner

CONTENTS

Sl.No.	Name of the Experiment	Page No.	MARKS	SIGN
1.a)	Array implementation of Stack ADT	01	9	
1.b)	Array implementation of Queue ADT	03	10	
2.	Array implementation of List ADT	05	9	
3. a)	Linked list implementation of Stack ADT	09	8	
3. b)	Linked list implementation of Queue ADT	11	7	
3. c)	Linked list implementation of List ADT	15	10	
4. a)	Application of Stack ADT	18	10	
4. b)	Application of Queue ADT	21	10	
5.	a. Graph Representation b. Graph Traversal – DFS and BFS	25	9	
6.	Implementation of Searching algorithms - Linear Search and Binary Search	28	8	
7.	Implementation of Sorting algorithms - Bubble Sort, Shell Sort, Radix Sort	32	10	
8.	Implementation of Heaps	36	10	
9.	Implementation of Binary Trees and operations of Binary trees	40	8	
10.	Implementation of Binary Search Tree	44	8	
11	Implementation of Hashing Technique	47	10	

Completed

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 193.

MINI PROJECT WORK LIST FOR THE ACADEMIC YEAR - 2019 / 2020

Department of Information Technology

S.No	Name of the Student	Batch No	Name of the Guide	Title of Project	#Type	Industry/ Inhouse	Paper Published if any details.
1	BHAVANI K	1	Mrs.Kayalvizhi	Fake News Detection using Machine Learning		Inhouse	
2	JOTHIKA M						
3	MOHAMED HANAZ . N	2	Mrs.Hepsibha Elizabeth	Human Face Detection		Inhouse	
4	RANJITH.T						
5	KABILAN.R	3	Mr.Senthil Pandi	Weather Reporting System		Inhouse	
6	VIGNESH.V						
7	VINODHA K	4	Dr.Sridhar	Stock Price Prediction using Machine Learning		Inhouse	
8	BHUVANATHARSHINI A						
9	PRAKASH. R	5	Mrs.Anusha V	Human Face Detection		Inhouse	
10	VISHNU. T						

Type : Application / Societal / Industrial / Product / Academic / Research

Name & Signature of Project Coordinator with date

Copy to Research

Format No : TLP 30

Rev. No.: 1.0

Sign of the HoD with date

Rev. Date : 04.01.21

PRINCIPAL

MOHAMED SATHAK A. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

MINI PROJECT WORK REVIEW MARKS FOR THE ACADEMIC YEAR - 20 19 / 20 20

Department of Information Technology

Date of Review		Panel Members 1. Dr. Sridhar 2. Mr. SenthilPandi		Review No	1/9/2020	Review No	2/13/2020	Review No	4/15/2020	Average / Final mark awarded	Guide sign
Batch No	Name of the student with Reg No	Project title	Guide Name	Mark Awarded	Sign of the student	Mark Awarded	Sign of the student	Mark Awarded	Sign of the student		
1	BHAVANI K 311817205701	Fake News Detection using Machine Learning	Mrs.Kayalvizhi	18		16		14		16	
	JOTHIKA M 311817205703			18		16		14		16	
2	MOHAMED HANAZ . N 311817205004	Human Face Detection	Mrs.Hepsibha Elizabeth	16		16		15		16	
	RANJITH.T 311817205006			16		14		16		16	
3	KABILAN.R 311817205003	Weather Reporting System	Mr.Senthil Pandi	15		15		14		15	
	VIGNESH.V 311817205007			16		15		14		15	
4	VINODHA K 311817205704	Stock Price Prediction using Machine Learning	Dr.Sridhar	18		16		14		16	
	BHUVANATHARSHINI A 311817205702			18		15		15		16	
5	PRAKASH. R 311817205005	Human Face Detection	Mrs.Anusha V	18		18		16		17	
	VISHNU. T 311817205008			18		16		16		17	

Name & Sign of Project Coordinator
Format No: TLP 31

Rev No.: 1.0

Head of the Department
Rev. Date: 04.01.21

PRINCIPAL
MOHAMED SATHAK J COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

34, Rajiv Gandhi Salai (OMR), Siruseri , Chennai – 603 103

Department of Information Technology

Date: 25.2.2019

Circular

The Second Project Review for the Under Graduate Programme
B.Tech .Information Technology for the academic year 2018-2019 will
be conducted on 6th MAR 2019

Batch No	Venue/Mode of Review	Time
01-06	Computer Programming Lab -I	10 AM to 11 AM

Note:- Students Should Submit the PPT presentation and related documents

Panel Members:

1 Dr.Siva 2. Mr.Sivaraman 3. Ms.S.Sivapriya 4. Dr.Manivannan.K

Coordinator

HOD/IT

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
DEPARTMENT OF INFORMATION TECHNOLOGY
FINAL PROJECT REVIEW
EVEN SEMESTER 2018-2019

Date : 25.3.18

Batch No	Register Number	Student Name	Project Title	Domain	Guide name	Atten.(10)	PPT(45)	Q&A (20)	Demo (25)	Total Marks (100)
1	311815205001	N.ABBASUDEEN	Automated Surveillance System Using RGB Variation Comparision	Image Processing	Mr.D.Siva	10	43	16	15	84
	311815205006	G.MAGESH				10	43	14	15	82
2	311815205002	R.ABIRAMI	A Secure IOT Based Health Monitoring System Using Multiple Network Analysis	IOT	Mrs.V.Subapriya	10	45	18	20	93
	311815205012	A.M.SOFIYA FATI				10	45	18	20	93
3	311815205003	M.AEJAS BASHA	Optimize Doctor Expretation Choice Using Cloud Computing	Cloud Computing	Mr.AHSAN SHARIFF M	10	42	17	18	87
	311815205013	J.K.VIGNESH								
4	311815205007	A.MOHAMMED ARBAZ ALI	Web Based Location Sharing For Online Social Network Using Cloud Computing	Cloud Computing	Mr.AHSAN SHARIFF M	10	43	17	17	87
	311815205011	T.SIDDHARTH				10	37	13	17	77
5	311815205009	A.MOHAMMED YAHYA	Android Appiication For Property Management Using Cloud Computing	Mobile Applications	Mr.D.Siva	10	43	17	18	88
6	311815205010	S.SATHISH	Quality of Services on DSR and AODU Routing Protocol in WSN	Network	Mr.AHSAN SHARIFF M	10	48	15	19	92
	311815205301	G.ATHIYAMAN				10	48	17	19	94

PROJECT COORDINATOR

HOD/IT

PRINCIPAL

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING
DEPARTMENT OF INFORMATION TECHNOLOGY
FINAL PROJECT REVIEW ATTENDANCE

Date: 25.03.2019

1.20pm

S.No	Register Number	Student Name	Student signature
1	311815205001	N.ABBASUDEEN	N. Abbasudeen
2	311815205002	R.ABIRAMI	R. Abirami
3	311815205003	M.AEJAS BASHA	M. Aejas Basha
4	311815205006	G.MAGESH	G. Magesh
5	311815205007	A.MOHAMMED ARBAZ ALI	A. Mohammed Arbaz Ali
6	311815205009	A.MOHAMMED YAHYA	A. Mohammed Yahya
7	311815205010	S.SATHISH KUMAR	S. Sathish Kumar
8	311815205011	T.SIDDHARTH	T. Siddharth
9	311815205012	A.M.SOFIYA FATHIMA	A.M. Sofiya Fathima
10	311815205013	J.K.VIGNESH	J.K. Vignesh
11	311815205301	G.ATHIYAMAN	G. Athiyaman

PRINCIPAL
MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 102.

Project coordinator

HOD/IT

PRINCIPAL

MOHAMMED SATHAK A J COLLEGE OF ENGINEERING
DEPARTMENT OF INFORMATION TECHNOLOGY
PROJECT REVIEW - II DETAILS
EVALUATION FORM FOR PROJECT PRESENTATIONS

Date: 06.03.2019

S.No	Batch No	Reg. No	Student Name	EVALUATION DETAILS						TOTAL (100)
				Attendance (10)	ENGINEERING BACKGROUND (20)	PRESENTATION FORMAT AND STRUCTURE (15)	DELIVERY (30)	PHYSICAL APPEARANCE, VOICE AND MANNER (15)	VISUAL AIDS (10)	
1	I	311815205001	N.ABBASUDEEN	10	20	15	30	13	10	98
2		311815205006	G.MAGESH	10	20	15	28	11	10	94
3	II	311815205002	R.ABIRAMI	10	20	15	30	14	10	99
4		311815205012	A.M.SOFIYA FATHIMA	10	20	15	29	12	10	96
5	III	311815205003	M.AEJAS BASHA	10	20	14	30	14	9	97
6		311815205013	J.K.VIGNESH	10	20	14	28	12	9	93
7	IV	311815205007	A.MOHAMMED ARBAZ ALI	AB 8	20	13	28	12	9	95
8		311815205011	T.SIDDHARTH	AB 8	20	13	27	13	9	88
9	V	311815205009	A.MOHAMMED YAHYA	008	20	14	28	14	9	93
10	VI	311815205010	S.SATHISH KUMAR	10	20	15	28	12	10	95
11		311815205301	G.ATHIYAMAN	10	20	15	30	13	10	98

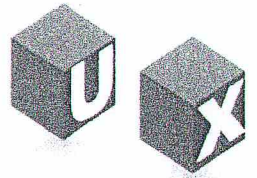

Project coordinator

MOHAMMED SATHAK A.J. COLLEGE OF ENGINEERING
Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.




HOD/IT


PRINCIPAL



F E E L F

To,

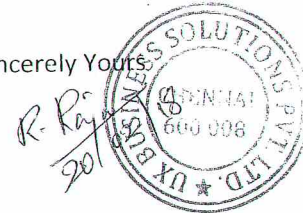
The HOD
Mohamed Sathak A.J college of engineering
IT Park, Siruseri, Old Mahabalipuram Road,
Chennai, Tamil Nadu 603103.

Respected Sir / Madam

Ms. G. Misba fathima (Reg No: 311814205002) BTECH IT, final year – Studying in Mohamed Sathak A.J college of engineering, have been Selected to undergo Project at our company.

The Duration of this project will be from 15-Feb-2018 to 27-^{March}~~Feb~~-2018. They will be taking their project guidance here from Tuesday to Friday in every week as per their request.

Sincerely Yours

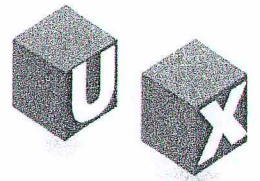


PRINCIPAL

MOHAMED SATHAK A.J COLLEGE OF ENGINEERING
34 Rajiv Gandhi Road (Opp Siruseri IT Park)
Chennai-603 103.

UX Business Solutions Private Limited

7&7A-3rd Floor - Wellington Estate 53, Ethiraj Salai (Opp - Ethiraj College)
Egmore, Chennai - 600 008, INDIA



F E E L

To,

The HOD

Mohamed Sathak A.J college of engineering
IT Park, Siruseri, Old Mahabalipuram Road,
Chennai, Tamil Nadu 603103.

Respected Sir / Madam

Ms. G.Pavithra (Reg No: 311814205004) BTECH IT, final year – Studying in Mohamed Sathak A.J college of engineering, are currently developing their Project at our company.

The Duration of this project will be from 15-Feb-2018 to 27-^{March}~~Feb~~-2018. They will be taking their project guidance here from Tuesday to Friday in every week as per their request.

Sincerely Yours



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR) Siruseri, IT Park
Chennai-603 103

UX Business Solutions Private Limited

7&7A-3rd Floor - Wellindon Estate 53, Ethiraj Salai (Opp - Ethiraj College)
Egmore, Chennai - 600 008, INDIA

STUDENTS PUBLICATION DETAILS

Department : IT

Academic Year : 2017-2018

S.No	Name of the Student / Authors	Year/ Sem/Sec	Name of the Conference / Symposium	Date	Organised by	National / International Level	Title of Paper	Journal / Proceeding Details
1	Revethy .A	IV	(ICIRCC'18)	7.04.2018	PERI Institute of Technology Chennai	International Journal of Science & Reserach (ICIRCC'18)	Robotics, Construction & Communicati on (ICIRCC'18)	
2	Kiruthika.A	IV	(ICIRCC'18)	7.04.2019	PERI Institute of Technology Chennai	International Journal of Science & Reserach (ICIRCC'18)	Robotics, Construction & Communicati on (ICIRCC'18)	
3	Sharmithra	IV	(IJSR'18)	03.03.2018	PERI Institute of Technology Chennai	International Journal of Science & Reserach	Prediction of Lung Cancer Using Classifier Models	Volume 7, Issue 3, March

Supporting

1. Photocopy of Published Paper & Certificate

Sign of the HoD with date

Copy to the:

Head-Research

Format No : TLP 35

Rev.No : 0.0

Rev. Date : 04.01.21



PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

INTERNATIONAL JOURNAL OF SCIENCE & RESEARCH



Online ISSN:2319-7064

Certificate of Publication

www.ijsr.net

This is to certify that the paper ID: ART2018822, entitled
Prediction of Lung Cancer Using Classifier Models

Autskored / Co Autskored

by

Sharmithra P

*has been published in Volume 7 Issue 3, March, 2018
in*

International Journal of Science and Research (IJSR)

The mentioned paper is measured upto the required standard.

R.M. Deshmukh

Editor in Chief, International Journal of Science and Research, India

PRINCIPAL
DR. RAJESH SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Chennai, IT Park
Chennai-600 103.



Prediction of Lung Cancer Using Classifier Models

Shamreen Fathima Saddique¹, Sharmithra P², Justin Xavier D³

Student, Dept. of Computer Science, Mohamed Sathak A.J College of Engineering, India¹

Student, Dept. of Computer Science, Mohamed Sathak A.J College of Engineering, India²

Asst. Professor, Dept. of Computer Science, Mohamed Sathak A.J College of Engineering, India³

Abstract: In recent years, Lung Cancer has become a serious disease that threatens the health and mind of human. Efficient predictive modeling is required for medical researchers and practitioners. This study proposes a lung cancer prediction model based on naïve Bayes which aims at analyzing some readily available indicators (age, smoking, alcohol consumption, chest pain, etc.) effects on lung cancer and discovering some rules on given data. The method can significantly reduce the risk of disease through digging out a clear and understandable model for lung cancer from a medical database. Naive Bayes classifiers are a family of simple probabilistic classifiers based on applying Bayes' theorem with strong (naïve) independence assumptions between the features. The validation of results at Chennai Port Hospital shows that the naïve Bayes algorithm can greatly reduce the problem and it can effectively predict the impact of these readily available indicators on the risk of lung cancer. Additionally, we get a better prediction accuracy using naïve Bayes than the support vector machine algorithm, logistic regression and random forest.

Keywords: prediction model; naïve Bayes; Lung Cancer

1. Introduction

Machine learning is a field of computer science that gives computer systems the ability to "learn" (i.e. progressively improve performance on a specific task) with data, without being explicitly programmed. machine learning explores the study and construction of algorithms that can learn from and make predictions on data— such algorithms overcome following strictly static program instructions by making data-driven predictions or decisions, through building a model from sample inputs. Machine learning is employed in a range of computing tasks where designing and programming explicit algorithms with good performance is difficult or infeasible.

RStudio is a free and open-source integrated development environment (IDE) for R, a programming language for statistical computing and graphics. RStudio is available in two editions: RStudio Desktop, where the program is run locally as a regular desktop application; and RStudio Server, which allows accessing RStudio using a web browser while it is running on a remote Linux server. Prepackaged distributions of RStudio Desktop are available for Windows, macOS, and Linux.

RStudio is available in open source and commercial editions and runs on the desktop (Windows, macOS, and Linux) or in a browser connected to RStudio Server or RStudio Server Pro. Further Rstudio allows us to perform predictive analysis using machine learning algorithms.

2. Problem Definition

Modern medicine generates a great deal of information stored in medical database. In today's world, every individual is facing growing health issues which need to be cured quickly. With continually increasing lung cancer in patients due to high intake of tobacco and puff, predicting the cancer in patients at an early stage is the huge issue for the clinicians to make decisions. Since it is considered as a taboo in some countries people fear to come forward to diagnose the disease, the best place to find occurrence of disease is by

applying machine learning concept to create the predictive model by using the data collected in the hospital regarding the patients affected by lung cancer to predict lung cancer.

3. Existing System

In the existing system, the model is created for the prediction of Lung Cancer. It is based on the basis of Support Vector Machine Algorithm. The model is established on the CT images.

Drawbacks

- The existing model requires scans images of the patients to detect the presence of cancer in patients.
- 77% of accuracy is achieved in this model.
- The model is trained with only 12 CT scans in which 6 of them are cancer affected patients and rest are non-affected.

4. Proposed System

4.1 Dataset Description

Dataset used in this study is more precise and accurate in order to improve the predictive accuracy of data mining algorithms. Attributes for symptom is used to diagnosis of disease are to be handled efficiently to obtain the optimal outcome from the data mining process. The attribute such as Age, Gender, Yellow Finger, Anxiety, Peer Pressure, Chronic Disease, Fatigue, Allergy, Alcohol Consumption, Smoking, chest pain, coughing of blood, shortness of breath, wheezing, swallowing difficulty are taken to consider for predicting the lung cancer. Rstudio implements algorithms for data pre-processing, feature reduction, classification such as Naive Bayes, Random Forest, Support Vector Machines, K-Nearest-Neighbours are also implemented. The performances of these algorithms for lung cancer disease are analyzed using confusion matrix.

Volume 7 Issue 3, March 2018

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

Paper ID: ART2018822

DOI: 10.21275/ART2018822

PRINCIPAL

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

- Jamal Alhiyafi, Sunday O. Olatunji8" Breast Cancer Surgery Survivability Prediction Using Bayesian Network and Support Vector Machines" IEEE-2017
- [4] N. Ramkumar, Dr. S. Prakash, S. Ashok kumar, K Sangeetha, "Prediction of liver cancer using Conditional probability Bayes theorem" IEEE-2017



Wsh

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Volume 7 Issue 3, March 2018

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

PERI

INSTITUTE OF TECHNOLOGY
MANNIVAKKAM, CHENNAI - 600 048

INTERNATIONAL CONFERENCE ON INFORMATICS, ROBOTICS, CONSTRUCTION & COMMUNICATION

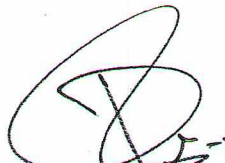
ICIRCC'18

7TH & 8TH APRIL 2018

CERTIFICATE OF PARTICIPATION

This is to certify that Ms. Kiruthika A of Mohamed Sathak A J College
of Engineering. has presented a paper titled Inter Provider ISP-to-ISP in MPLSVPN
Networks Using MP-EBGP in the

INTERNATIONAL CONFERENCE ON INFORMATICS, ROBOTICS, CONSTRUCTION & COMMUNICATION held on 7th & 8th April, 2018.


CHAIRMAN


COO


CONVENOR

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

PERI

INSTITUTE OF TECHNOLOGY
MANNIVAKKAM, CHENNAI - 600 048

INTERNATIONAL CONFERENCE ON INFORMATICS, ROBOTICS, CONSTRUCTION & COMMUNICATION

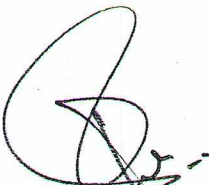
ICIRCC'18

7TH & 8TH APRIL 2018

CERTIFICATE OF PARTICIPATION

is to certify that Ms. Revathy R of Mohamed Sathak A J College
of Engineering has presented a paper titled Inter Provider ISP-to-ISP in
MPLSVPN Networks Using MP-EBGP. in the

INTERNATIONAL CONFERENCE ON INFORMATICS, ROBOTICS, CONSTRUCTION & COMMUNICATION held on 7th & 8th April, 2018.


CHAIRMAN


COO


CONVENOR

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Inter-Provider ISP-to-ISP in MPLSVPN Network Using MP-EBGP Method

A.Kiruthika¹, R.Revathy², K.Suresh³

¹UG Student, Department of Computer Science and Engineering, Mohamed Sathak A J College of Engineering, Chennai, India

²UG Student, Department of Computer Science and Engineering, Mohamed Sathak A J College of Engineering, Chennai, India

³Associate Professor, Department of Computer Science and Engineering, Mohamed Sathak A J College of Engineering, Chennai, India

Abstract : Being widely adopted by worldwide service providers, the MPLS technology to connect geographically separated customer sites becomes important in reliability. It is used to implement VPNs to connect the customer networks i.e., Inter-provider VPN network. In this paper we first briefly describe VPN switch are behind the scope of secure private MPLS connections such as several VPN deployments emerged from the sudden growth of requirements. We then discuss about the requirements of inter connections from customer end to service provider in one's perspective. We then propose and discuss the methods used for deployment options from service providers point of view. In this paper, we present an novel method of communication among branches or partner branches of an organization each of them situated at distinct geographical areas with absence of the same ISP in every area. We came up with an idea of designing an Inter provider network i.e., connecting multiple ISPs with the private network mechanism which provides global reachability. It deals with the security issues confidently and provides there placement of Internet in private / public organizations.

Index Terms — *MPLS Technology, VPN, Inter-provider network, VPN deployments, distinct geographical areas, absence of the same ISP, replacement of Internet, private / public organizations.*

1. INTRODUCTION

The Internet has proven that multiple separately managed networks can be built and interconnected in such a way that end users can send and receive traffic without having to be aware of the underlying fact that multiple providers may be involved in transporting their traffic. While the Internet model has demonstrated success in multiple providers working together, for the model uses a very basic set of requirements only. Given a set of fundamental rules agreed on by all providers, network destinations and associated metrics can be shared. Providers monitor and maintain their own autonomous systems (ASs) and peering points, and can forward Internet traffic they receive toward intended destinations reach able through alternate providers.

MPLS is enabling a new generation of advanced services, such as network-based layer 3 (L3) and layer2 (L2) virtual private networks (VPNs), and voice over IP (VoIP) over MPLS and MPLS VPNs. Now that these new features are deployed in each individual provider's network, the need to inter connect the networks of multiple providers to provide end-to-end advanced services becomes urgent, as no single provider has a footprint large enough to satisfy all customer needs. Furthermore, the availability of inter-provider quality of service (QoS) capability. All these services are very different in nature than simple Internet traffic delivery. New business models, new technologies, and new processes need to be developed, and a higher level of cooperation among providers is needed to meet service demands.

Unlike Internet services, currently there are no common rules and procedures among providers for MPLS interconnections. Each connection between providers is customized to suit the specific needs of the involved providers. This adhoc nature requires tremendous effort to establish business models, processes, ordering, billing, interconnection technologies, security agreements, monitoring and troubleshooting processes, QoS and class of service (CoS) definitions, and service level agreement (SLA) implementation. While cooperation between providers solves some issues, other issues, such as end-to-end QoS, still present consider able challenges part of the initial effort to move closer to common solutions and practices, with the best interests of providers and end users in mind.

So far there are many ISPs (Internet Service Providers) providing MPLS VPN network connections, VPN only connections, Internet oriented MPLS connections based on layers i.e., L2VPNs & L3VPNs. Also the Inter provider connection (Multiple ISPs) through Internet based VPNs using MPLS in the background are in exercise currently. This paper's main theme is that we can incorporate the different ISPs to implement connection over customer sites by private ip address scheme with the agreement of each provider.

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
20, West Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

5. ASBR-to-ASBR approach using MP-eBGP method

In this method, ASBRs use traditional IPv4 routing to integrate VPNs across two adjacent service providers. In this method, the ASBRs use MP-eBGP (Multi-Protocol-Exterior Border Gateway Protocol) to peer with each other to exchange VPNv4 (version4) routes between autonomous systems[2]. This is called the ASBR-to-ASBR approach, also known as MP-eBGP for VPNv4 exchange. This approach there for reduces the need to have per-VPN configuration on the ASBRs as in the back-to-back VRF method and there for allows VPNv4 prefixes to be carried across multiple service providers.

Nonetheless, to allow the VPNv4 prefixes transportation, the link between the autonomous systems must support the exchange of MPLS packets because the VPNv4 updates are encapsulated in MPLS packets when they traverse an Autonomous system and thus need to be encapsulated when going across the ASs. The MP-eBGP session between directly connected interfaces on the ASBRs enables the interfaces to forward label packets [2].

Some important characteristics to keep in mind when using this method:

- No requirement of LDP or IGP (Interior Gateway protocol) to be able don't the interface connecting the two ASBRs.
- BGP default Route-target filter need not to be configured on an ASBR that does not have any VRFs configured. The command ensures that the ASBR accepts the BGP VPNv4 prefixes from other Provider Edge Routers inside the AS [2].

To maintain an end to end LSP path from customer site of one ISP too their ISP customer site ,MPLS is enabled between the ASBRs. Routers in the network with ASBR-ASBR configuration are configured with the following:

- 1) The provider edge routers on AS 65001 and AS 65002 are configured with MPLS using LDP protocol and also designed with bgp configuration.
- 2) Route reflectors which are used by each ISP are updated with IP ranges using BGP protocol.
- 3) Border routers (ASBRs) are configured with MP-eBGP protocol.

6. RESULTS AND DISCUSSION

Significant reduction in latency is observed with the simulation of the design in ASBR-to-ASBR Approach using MP-eBGP Method.

The inter-connection between routers are made successfully using OSPF (as IGP protocol) and iBGP protocols within both ISPs and MPLS is enabled.

```
R6#sh mpls ldp bindings
lib entry: 10.20.20.0/30, rev 10
  local binding: label: 502
  remote binding: lsr: 10.20.20.200:0, label: imp-null
lib entry: 10.20.20.4/30, rev 2
  local binding: label: imp-null
  remote binding: lsr: 10.20.20.200:0, label: imp-null
lib entry: 10.20.20.101/32, rev 8
  local binding: label: 501
  remote binding: lsr: 10.20.20.200:0, label: 400
lib entry: 10.20.20.102/32, rev 4
  local binding: label: imp-null
  remote binding: lsr: 10.20.20.200:0, label: 401
lib entry: 10.20.20.200/32, rev 6
  local binding: label: 500
  remote binding: lsr: 10.20.20.200:0, label: imp-null
R6#
```

Fig 5.1. Connection established between routers with OSPF protocol enabled

```

R6#sh ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       O - OSPF, EX - OSPF external, E - EIGRP, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       I1 - OSPF internal type 1, I2 - OSPF internal type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 5 subnets, 2 masks
C       10.20.20.0/30 is directly connected, Serial0/0/0
C       10.20.20.4/30 [110/200] via 10.20.20.1, 00:00:00, Serial0/0/0
C       10.20.20.101/32 [110/200] via 10.20.20.1, 00:00:00, Serial0/0/0
C       10.20.20.102/32 is directly connected, Loopback0
C       10.20.20.200/32 [110/200] via 10.20.20.1, 00:00:00, Serial0/0/0
```

Fig 5.2. Connection established between routers with MPLS protocol enabled


```

R8#
R8#ping 172.16.10.2 source 172.16.20.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.10.2, timeout is 2 seconds:
Packet sent with a source address of 172.16.20.1
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1172/1289/1436 ms
R8#
R8#

```

Fig 5.8. R8 pinging R7

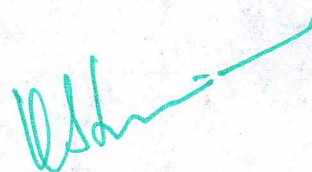
Conversely the customer end router from ISP2 pinged the one in ISP1 successfully.

9. REFERENCES

- [1] Chris Hoffman. (2013, Jan 15). "What Is a VPN, Why would I need one?" [Online]. Available: <https://www.howtogeek.com>.
- [2] C.Huang, V.Sharma, K.Owens ,S.Makam, March 2002 , "Building Reliable MPLS Networks Using a Path Protection Mechanism", IEEE communication March 2002.
- [3] Madhulika Bhandureetal ., "Approach to build MPLS VPN using QOS capabilities", www.ijerd.com-ISSN:2278-067X, June 2013, Volume 7, Issue 8, pp.26- 32.
- [4] Tejender Singh Rawatetal., "A Review paper on MPLS VPN Architecture", www.ijetmas.com May 2015, Volume 3, Issue 5, ISSN 2349-4476.
- [5] Umesh Lakshman ,Lancy Lobo- CCIENo. 4690, "Inter-provider VPNs "in MPLS Configurationon Cisco IOS Software, Cisco press, 2005, pp.455- 507.
- [6] Vassilis Foteinosetal., "Operator-Friendly Traffic Engineering in IP/MPLS Core networks" ,Vol.11No.3, 1932-4537© 2014 IEEE. Personal use is permitted, but republication/ redistribution requires IEEE permission ,http://www.ieee.org/publications_standards/publications/rights/index.html for more information.
- [7] Wendell Odom, "Virtual Private Networks" in Cisco CCENT / CCNA ICND 1100-101, Ciscopress, 2013, pp.1130-1144.

10. CONCLUSION AND FUTURE ENHANCEMENT

As the proposed system brings the precinct of inter connection of ISP-ISP, it has the significance of private IP range. We are assigning the private ip addresses to all the channeled routers and hosts toward the data. Although most of the companies in the countries work through Internet with their host computers access, it is formidable that their data is open to public. The risks associated with the Internet are advertised everyday by the trade and main stream media. For corporations the risks are even more and apparent. Stolen or deleted corporate data adversely affect people's livelihoods, cost the company money. If it's a small company then it could put it out of business. Since the Internet is a public network you always risk having someone access any system you connect to it. So this proposal of a private network comes with a complete no exposure of public domain yields the ease of having no doubt about the protection of information dealt between the inter-branches. More over this design of network also provides very low latency and there by high speed performance since the overload caused by the exchange of overheads in the system of Internet is totally reduced and acts as a leased connection to the branches from the organization. This method also helps the providers / operators to enhance their revenue value if they form their own suitable agreements each other because of high probability of Internet services exhausts or becomes almost non-trustable in the future. In this paper has the facility to be employed in IPv6 addressing also which is to be deployed in the fourth coming years which will enable higher degree of addressing and auto-configuration mechanism.



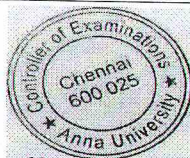
PRINCIPAL

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 102.



ANNA UNIVERSITY, CHENNAI - 600 025
TIME TABLE-B.E./B.Tech./B.Arch. DEGREE EXAMINATIONS - VI & VIII th SEM APRIL/MAY-2021
II & IV th SEM (NOVEMBER/DECEMBER-2020 AND APRIL/MAY-2021)
I, III, V, AND VII SEMESTER NOVEMBER/DECEMBER-2020
(REGULATIONS-2017)
CHOICE BASED CREDIT SYSTEM (CBCS)

Branch Name	B.Tech. Information Technology			
mes ter	Subject Code	Subject Name	Exam Date	Session
01	CY8151	Engineering Chemistry	21-JUN-21	A.N.
01	GE8151	Problem Solving and Python Programming	23-JUN-21	A.N.
01	GE8152	Engineering Graphics	25-JUN-21	A.N.
01	MA8151	Engineering Mathematics - I	28-JUN-21	A.N.
01	HS8151	Communicative English	01-JUL-21	A.N.
01	PH8151	Engineering Physics	03-JUL-21	A.N.
02	BE8255	Basic Electrical, Electronics and Measurement Engineering	17-JUL-21	F.N.
02	IT8201	Information Technology Essentials	19-JUL-21	F.N.
02	PH8252	Physics for Information Science	20-JUL-21	F.N.
02	CS8251	Programming in C	23-JUL-21	F.N.
02	MA8251	Engineering Mathematics - II	27-JUL-21	F.N.
02	HS8251	Technical English	29-JUL-21	F.N.
03	MA8351	Discrete Mathematics	30-JUN-21	F.N.
03	EC8394	Analog and Digital Communication	06-JUL-21	A.N.
03	CS8351	Digital Principles and System Design	08-JUL-21	A.N.
03	CS8392	Object Oriented Programming	16-JUL-21	A.N.
03	CS8391	Data Structures	26-JUL-21	A.N.
04	CS8491	Computer Architecture	25-JUN-21	F.N.
04	MA8391	Probability and Statistics	28-JUN-21	F.N.
04	CS8492	Database Management Systems	29-JUN-21	F.N.
04	CS8493	Operating Systems	01-JUL-21	F.N.
04	CS8451	Design and Analysis of Algorithms	08-JUL-21	F.N.
04	GE8291	Environmental Science and Engineering	26-JUL-21	F.N.
05	IT8501	Web Technology	24-JUN-21	F.N.
05	EC8691	Microprocessors and Microcontrollers	02-JUL-21	F.N.
05	MA8551	Algebra and Number Theory	02-JUL-21	A.N.
05	OCH551	Industrial Nanotechnology	05-JUL-21	F.N.
05	OME551	Energy Conservation and Management	05-JUL-21	F.N.
05	OMD551	Basic of Biomedical Instrumentation	05-JUL-21	F.N.
05	OIM551	World Class Manufacturing	05-JUL-21	F.N.
05	OTL554	Wavelets and its Applications	05-JUL-21	F.N.
05	OMD553	Telehealth Technology	05-JUL-21	F.N.
05	OTL553	Telecommunication Network Management	05-JUL-21	F.N.
05	OEC552	Soft Computing	05-JUL-21	F.N.
05	OAN551	Sensors and Transducers	05-JUL-21	F.N.
05	OBT554	Principles of Food Preservation	05-JUL-21	F.N.
05	OME553	Industrial Safety Engineering	05-JUL-21	F.N.
05	OCE551	Air Pollution and Control Engineering	05-JUL-21	F.N.
05	OCE552	Geographic Information System	05-JUL-21	F.N.
05	OBT552	Basics of Bioinformatics	05-JUL-21	F.N.



FN: FORENOON (10 A.M. TO 1 P.M.)
 AN: AFTERNOON (2 P.M. TO 5 P.M.)

CONTROLLER OF EXAMINATIONS

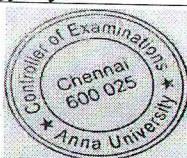


ANNA UNIVERSITY, CHENNAI - 600 025
TIME TABLE-B.E./B.Tech./B.Arch. DEGREE EXAMINATIONS - VI & VIII th SEM APRIL/MAY-2021
II & IV th SEM (NOVEMBER/DECEMBER-2020 AND APRIL/MAY-2021)
I, III, V, AND VII SEMESTER NOVEMBER/DECEMBER-2020
(REGULATIONS-2017)
CHOICE BASED CREDIT SYSTEM (CBCS)

Branch Name	B.Tech. Information Technology			
mes ter	Subject Code	Subject Name	Exam Date	Session
05	OTL552	Digital Audio Engineering	05-JUL-21	F.N.
05	OMF551	Product Design and Development	05-JUL-21	F.N.
05	OEI551	Logic and Distributed Control Systems	05-JUL-21	F.N.
05	OBT553	Fundamentals of Nutrition	05-JUL-21	F.N.
05	OMD552	Hospital Waste Management	05-JUL-21	F.N.
05	CS8494	Software Engineering	06-JUL-21	F.N.
05	CS8591	Computer Networks	13-JUL-21	A.N.
06	CS8592	Object Oriented Analysis and Design	22-JUN-21	F.N.
06	IT8601	Computational Intelligence	23-JUN-21	F.N.
06	GE8075	Intellectual Property Rights	26-JUN-21	A.N.
06	IT8076	Software Testing	26-JUN-21	A.N.
06	IT8072	Embedded Systems	26-JUN-21	A.N.
06	CS8072	Agile Methodologies	26-JUN-21	A.N.
06	IT8001	Information Storage and Management	26-JUN-21	A.N.
06	IT8602	Mobile Communication	03-JUL-21	F.N.
06	CS8091	Big Data Analytics	07-JUL-21	F.N.
06	CS8092	Computer Graphics and Multimedia	10-JUL-21	F.N.
07	CS8792	Cryptography and Network Security	21-JUN-21	F.N.
07	CS8071	Advanced Topics on Databases	22-JUN-21	A.N.
07	GE8071	Disaster Management	22-JUN-21	A.N.
07	GE8074	Human Rights	29-JUN-21	A.N.
07	GE8077	Total Quality Management	30-JUN-21	A.N.
07	IT8002	Web Development Frameworks	09-JUL-21	A.N.
07	IT8074	Service Oriented Architecture	09-JUL-21	A.N.
07	CS8082	Machine Learning Techniques	09-JUL-21	A.N.
07	CS8081	Internet of Things	09-JUL-21	A.N.
07	IT8075	Software Project Management	09-JUL-21	A.N.
07	OBM751	Basics of Human Anatomy and Physiology	12-JUL-21	F.N.
07	OBM752	Hospital Management	12-JUL-21	F.N.
07	OBT753	Introduction of Cell Biology	12-JUL-21	F.N.
07	OCE751	Environmental and Social Impact Assessment	12-JUL-21	F.N.
07	OCH752	Energy Technology	12-JUL-21	F.N.
07	OEC751	Electronic Devices	12-JUL-21	F.N.
07	OEC754	Medical Electronics	12-JUL-21	F.N.
07	OEN751	Green Building Design	12-JUL-21	F.N.
07	OIE751	Robotics	12-JUL-21	F.N.
07	OME752	Supply Chain Management	12-JUL-21	F.N.
07	OME753	Systems Engineering	12-JUL-21	F.N.
07	OMF751	Lean Six Sigma	12-JUL-21	F.N.
07	OEE752	Introduction to Renewable Energy Systems	12-JUL-21	F.N.

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR), Siruseri, Chennai-603 103.

FN: FORENOON (10 A.M. TO 1 P.M.)
 AN: AFTERNOON (2 P.M. TO 5 P.M.)





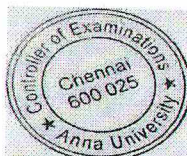
ANNA UNIVERSITY, CHENNAI - 600 025
TIME TABLE-B.E./B.Tech./B.Arch. DEGREE EXAMINATIONS - VI & VIII th SEM APRIL/MAY-2021
II & IV th SEM (NOVEMBER/DECEMBER-2020 AND APRIL/MAY-2021)
I, III, V, AND VII SEMESTER NOVEMBER/DECEMBER-2020
(REGULATIONS-2017)
CHOICE BASED CREDIT SYSTEM (CBCS)

Branch Name		B.Tech. Information Technology		
Sl. No.	Subject Code	Subject Name	Exam Date	Session
07	OGI751	Climate Change and its Impact	12-JUL-21	F.N.
07	OCY751	Waste Water Treatment	12-JUL-21	F.N.
07	CS8073	C# and .Net Programming	15-JUL-21	A.N.
07	CS8088	Wireless Adhoc and Sensor Networks	15-JUL-21	A.N.
07	CS8079	Human Computer Interaction	15-JUL-21	A.N.
07	CS8791	Cloud Computing	16-JUL-21	F.N.
07	GE8076	Professional Ethics in Engineering	19-JUL-21	A.N.
07	CS8084	Natural Language Processing	22-JUL-21	A.N.
07	IT8005	Electronic Commerce	22-JUL-21	A.N.
07	MG8591	Principles of Management	23-JUL-21	A.N.
07	CS8080	Information Retrieval Techniques	27-JUL-21	A.N.
07	CS8074	Cyber Forensics	29-JUL-21	A.N.
08	GE8076	Professional Ethics in Engineering	19-JUL-21	A.N.
08	CS8084	Natural Language Processing	22-JUL-21	A.N.
08	IT8005	Electronic Commerce	22-JUL-21	A.N.
08	IT8078	Web Design and Management	22-JUL-21	A.N.
08	CS8080	Information Retrieval Techniques	27-JUL-21	A.N.
08	CS8078	Green Computing	27-JUL-21	A.N.
08	CS8074	Cyber Forensics	29-JUL-21	A.N.
08	CS8085	Social Network Analysis	29-JUL-21	A.N.
08	EC8093	Digital Image Processing	29-JUL-21	A.N.
08	IT8073	Information Security	29-JUL-21	A.N.

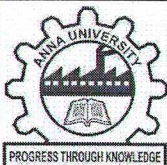

PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING
 34, Rajiv Gandhi Road (OMR) Siruseri, Chennai
 Chennai-603 103.

FN: FORENOON (10 A.M. TO 1 P.M.)
 AN:AFTERNOON (2 P.M. TO 5 P.M.)




CONTROLLER OF EXAMINATIONS



ANNA UNIVERSITY :: CHENNAI - 600 025
OFFICE OF THE CONTROLLER OF EXAMINATIONS
NOV. / DEC. EXAMINATION, 2021 EXAMINATIONS
Internal Examiner Allotted Report

Institution Code - Name : 3118 - MOHAMMED SATHAK A.J.COLLEGE OF ENGINEERING

Slot Code - Slot Name : 1 - Nov./Dec.2021 Practical Examinations

Branch Code - Branch Name [University] : 103 - B.E. Civil Engineering [AUC]

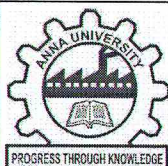
Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
01	GE8161 - Problem Solving and Python Programming Laboratory (R - 2017)	2	1	1	2	11-03-2022	13:00:00	3118297-SENTHIL PANDI A
03	CE8311 - Construction Materials Laboratory (R - 2017)	19	1	1	19	12-03-2022	09:00:00	3118327-SARANGAN B
03	CE8361 - Surveying Laboratory (R - 2017)	18	1	1	18	11-03-2022	09:00:00	3118307-RAKESH R B
05	CE8511 - Soil Mechanics Laboratory (R - 2017)	9	1	1	9	11-03-2022	09:00:00	3118287-S HEMAVATHI
05	CE8512 - Water and Waste Water Analysis Laboratory (R - 2017)	10	1	1	10	10-03-2022	09:00:00	9115020-SATHEES KUMAR P
06	CE8611 - Highway Engineering Laboratory (R - 2017)	2	1	1	2	12-03-2022	13:00:00	3118287-S HEMAVATHI
07	CE8711 - Creative and Innovative Project (Activity Based - Subject Related) (R - 2017)	12	1	1	12	11-03-2022	09:00:00	7220140-SHANMUHARAJAN M B

Branch Code - Branch Name [University] : 104 - B.E. Computer Science and Engineering [AUC]

Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
03	CS8381 - Data Structures Laboratory (R - 2017)	53	2	1	27	11-03-2022	09:00:00	3118326-SARANYA V
				2	26	11-03-2022	13:00:00	3118326-SARANYA V
03	CS8382 - Digital Systems Laboratory (R - 2017)	52	2	1	26	10-03-2022	09:00:00	3101255-R SUGUNA DEVI
				2	26	10-03-2022	13:00:00	3101255-R SUGUNA DEVI
03	CS8383 - Object Oriented Programming Laboratory (R - 2017)	52	2	1	26	12-03-2022	09:00:00	3118332-MUTHUKUMAR S
				2	26	12-03-2022	13:00:00	3118332-MUTHUKUMAR S
04	CS8461 - Operating Systems Laboratory (R - 2017)	1	1	1	1	11-03-2022	09:00:00	3118319-WESLIN D
05	CS8581 - Networks Laboratory (R - 2017)	53	2	1	27	11-03-2022	09:00:00	3118297-SENTHIL PANDI A
				2	26	11-03-2022	13:00:00	3118297-SENTHIL PANDI A
05	CS8582 - Object Oriented Analysis and Design Laboratory (R - 2017)	54	2	1	27	12-03-2022	09:00:00	3118329-VISWAJAA
				2	27	12-03-2022	13:00:00	3118329-VISWAJAA
05	EC8681 - Microprocessors and Microcontrollers Laboratory (R - 2017)	54	2	1	27	10-03-2022	09:00:00	3118300-S SONADEVI
06	CS8611 - Mini Project (R - 2017)	34	1	1	27	10-03-2022	13:00:00	3118300-S SONADEVI
06	CS8661 - Internet Programming Laboratory (R - 2017)	1	1	1	1	12-03-2022	09:00:00	3105093-PREMALATHA G
07	CS8711 - Cloud Computing Laboratory (R - 2017)	20	1	1	20	11-03-2022	13:00:00	3118139-SYED ISMAIL A
07	IT8761 - Security Laboratory (R - 2017)	20	1	1	20	12-03-2022	13:00:00	3118319-WESLIN D

Branch Code - Branch Name [University] : 105 - B.E. Electrical and Electronics Engineering [AUC]

Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
----------	---------	---------------	----------------	-------------	---------------------	------	------	---



ANNA UNIVERSITY :: CHENNAI - 600 025
OFFICE OF THE CONTROLLER OF EXAMINATIONS
NOV. / DEC. EXAMINATION, 2021 EXAMINATIONS
Internal Examiner Allotted Report

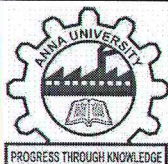
03	EC8311 - Electronics Laboratory (R - 2017)	21	1	1	21	11-03-2022	09:00:00	3118315-ABIRAMI R
03	EE8311 - Electrical Machines Laboratory - I (R - 2017)	21	1	1	21	10-03-2022	09:00:00	3118321-BRINDHA H
05	CS8383 - Object Oriented Programming Laboratory (R - 2017)	6	1	1	6	11-03-2022	13:00:00	3118319-WESLIN D
05	EE8511 - Control and Instrumentation Laboratory (R - 2017)	6	1	1	6	10-03-2022	09:00:00	3118315-ABIRAMI R
07	EE8711 - Power System Simulation Laboratory (R - 2017)	5	1	1	5	11-03-2022	13:00:00	3118321-BRINDHA H
07	EE8712 - Renewable Energy Systems Laboratory (R - 2017)	5	1	1	5	10-03-2022	13:00:00	3118322-HEMA SUMITHA D

Branch Code - Branch Name [University] : 106 - B.E. Electronics and Communication Engineering [AUC]

Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
01	BS8161 - Physics and Chemistry Laboratory (R - 2017)	1	2	1	1	12-03-2022	13:00:00	3118301-SHOBANA V
				2	1	12-03-2022	13:00:00	3118108-BALAKRISHNAN
01	GE8161 - Problem Solving and Python Programming Laboratory (R - 2017)	1	1	1	1	11-03-2022	13:00:00	3118297-SENTHIL PANDI A
02	EC8261 - Circuits and Devices Laboratory (R - 2017)	1	1	1	1	12-03-2022	13:00:00	3118181-PIRIYADHARSHINI S
03	EC8361 - Analog and Digital Circuits Laboratory (R - 2017)	32	1	1	32	12-03-2022	09:00:00	3118317-KAMARAJAN
03	EC8381 - Fundamentals of Data Structures in C Laboratory (R - 2017)	32	1	1	32	11-03-2022	09:00:00	3118328-KIRUTHIKA S
05	EC8561 - Communication Systems Laboratory (R - 2017)	22	1	1	22	12-03-2022	09:00:00	3118009-DHIRAVIDA CHELVI E
05	EC8562 - Digital Signal Processing Laboratory (R - 2017)	22	1	1	22	10-03-2022	09:00:00	3118011-E JAYANTHI
05	EC8563 - Communication Networks Laboratory (R - 2017)	22	1	1	22	11-03-2022	09:00:00	3118181-PIRIYADHARSHINI S
07	EC8711 - Embedded Laboratory (R - 2017)	6	1	1	6	10-03-2022	09:00:00	3118025-S NAVEEN KUMAR
07	EC8761 - Advanced Communication Laboratory (R - 2017)	6	1	1	6	11-03-2022	09:00:00	3118009-DHIRAVIDA CHELVI E

Branch Code - Branch Name [University] : 114 - B.E. Mechanical Engineering [AUC]

Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
03	EE8361 - Electrical Engineering Laboratory (R - 2017)	40	2	1	20	12-03-2022	09:00:00	3118322-HEMA SUMITHA D
				2	20	12-03-2022	13:00:00	3118322-HEMA SUMITHA D
03	ME8361 - Manufacturing Technology Laboratory - I (R - 2017)	40	2	1	20	10-03-2022	09:00:00	3118237-RAJESH J
				2	20	10-03-2022	13:00:00	3118237-RAJESH J
03	ME8381 - Computer Aided Machine Drawing (R - 2017)	40	2	1	20	11-03-2022	09:00:00	3118320-MOHAN S R
				2	20	11-03-2022	13:00:00	3118320-MOHAN S R
05	ME8511 - Kinematics and Dynamics Laboratory (R - 2017)	30	2	1	15	10-03-2022	09:00:00	3118311-D. SAKTHIVEL
				2	15	10-03-2022	13:00:00	3118311-D. SAKTHIVEL
05	ME8512 - Thermal Engineering Laboratory (R - 2017)	30	2	1	15	11-03-2022	09:00:00	3118284-MUHAMMAD IRFAN A A
				2	15	11-03-2022	13:00:00	3118284-MUHAMMAD IRFAN A A
05	ME8513 - Metrology and Measurements Laboratory (R - 2017)	30	2	1	15	12-03-2022	09:00:00	3118066-S PRASATH
				2	15	12-03-2022	13:00:00	3118066-S PRASATH



ANNA UNIVERSITY :: CHENNAI - 600 025
OFFICE OF THE CONTROLLER OF EXAMINATIONS
 NOV. / DEC. EXAMINATION, 2021 EXAMINATIONS
Internal Examiner Allotted Report

07	ME8711 - Simulation and Analysis Laboratory (R - 2017)	26	2	1	13	12-03-2022	09:00:00	3121144-VIGNESHWARAN V
				2	13	12-03-2022	13:00:00	3121144-VIGNESHWARAN V
07	ME8781 - Mechatronics Laboratory (R - 2017)	26	2	1	13	11-03-2022	09:00:00	3118025-S NAVEEN KUMAR
				2	13	11-03-2022	13:00:00	3118025-S NAVEEN KUMAR

Branch Code - Branch Name [University] : 205 - B.Tech. Information Technology [AUC]

Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
03	CS8381 - Data Structures Laboratory (R - 2017)	60	2	1	30	12-03-2022	09:00:00	3118330-SASIKALA L
				2	30	12-03-2022	13:00:00	3118330-SASIKALA L
03	CS8382 - Digital Systems Laboratory (R - 2017)	60	2	1	30	10-03-2022	09:00:00	3118012-I S SUGANTHI
				2	30	10-03-2022	13:00:00	3118012-I S SUGANTHI
03	CS8383 - Object Oriented Programming Laboratory (R - 2017)	60	2	1	30	11-03-2022	09:00:00	3118333-ASRIN MAHMOOHA
				2	30	11-03-2022	13:00:00	3118333-ASRIN MAHMOOHA
04	CS8481 - Database Management Systems Laboratory (R - 2017)	1	1	1	1	12-03-2022	13:00:00	3118319-WESLIN D
05	CS8581 - Networks Laboratory (R - 2017)	30	2	1	15	11-03-2022	09:00:00	3105093-PREMALATHA G
				2	15	11-03-2022	13:00:00	3105093-PREMALATHA G
05	EC8681 - Microprocessors and Microcontrollers Laboratory (R - 2017)	30	2	1	15	10-03-2022	09:00:00	3118334-ASHOKKUMAR M
				2	15	10-03-2022	13:00:00	3118334-ASHOKKUMAR M
05	IT8511 - Web Technology Laboratory (R - 2017)	30	1	1	30	12-03-2022	09:00:00	3118331-MANDAKINI
07	IT8711 - FOSS and Cloud Computing Laboratory (R - 2017)	13	1	1	13	11-03-2022	09:00:00	3118139-SYED ISMAIL A
07	IT8761 - Security Laboratory (R - 2017)	13	1	1	13	12-03-2022	09:00:00	3118319-WESLIN D

Branch Code - Branch Name [University] : 413 - M.E. Structural Engineering [AUC]

Semester	Subject	Total Student	No. of Session	Session No.	Student per Session	Date	Time	Internal Examiner Staff Code/Staff Name
03	ST5313 - Project Work (Phase I) (R - 2017)	3	1	1	3	12-03-2022	09:00:00	9115020-SATHEES KUMAR P

PRINCIPAL

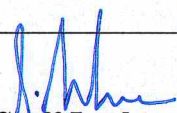
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
 34 Rajiv Gandhi Road (OMR), Siruseri, IT Park
 Chennai-603 103.

MOHAMED SATHAK A J COLLEGE OF ENGINEERING

Department of Information Technology

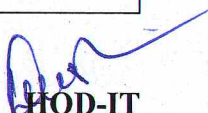
Innovative Teaching Methodology

S.No	Subject Name	ITM Tool	Topic
1.	Problem Solving and Python Programming	Z-A Technique	List,Tuple
		Project Based Learning	I/O Functions, Conditional Statements, List, R/W Files
		Flipped Class Room	Sorting Techniques
		Role Play	Retail Bill Preparation
2.	C Programming	Z-A Technique	Conditional Statements
		Z-A Technique	Array, Queue, List Comparison
		Flipped Class Room	Searching and Sorting Techniques
		Seminar	Structures and Union
3.	Data Structures	Z-A Technique	Linked List
		Z-A Technique	Queue
		Flipped Class Room	Bubble Sort
		Group Discussion	Graph
4	Computer Networks	Z-A Technique	Data Transfer
		Flipped Class Room	Shortest Path Algorithm
		Project Based Learning	Routing
		Role Play	Real Time Applications

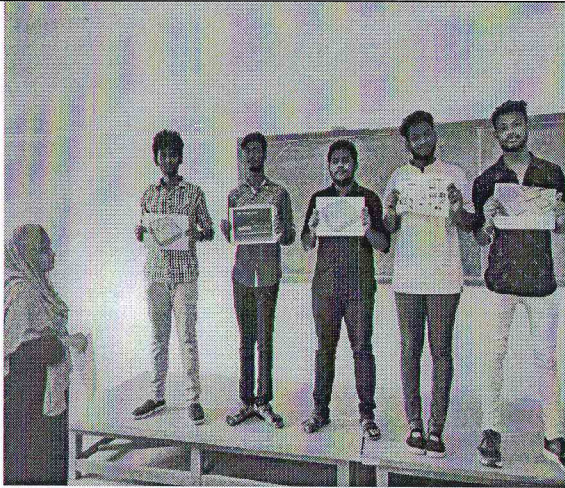

Staff-In charge


PRINCIPAL

MOHAMED SATHAK A.J.COLLEGE OF EN. & TECH.
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.


HOD-IT

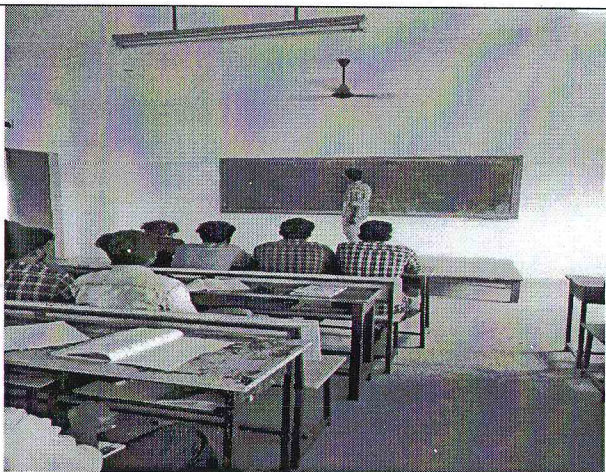
Sample of Innovative Teaching Methods



Role play



Group Discussion



Seminar

[Handwritten Signature]

PRINCIPAL

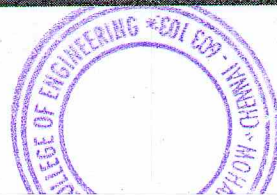
MOHAMED SATHAK A.J.COLLEGE OF ENG & TECHNOLOGY

34 Rajiv Gandhi Road (OMR) Sivasankarapuram

Chennai-600 109.

Evolution of Linux OS

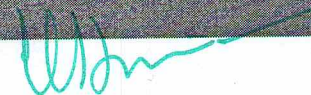
- The Linux OS was developed by Linus Torvalds in 1991
- which sprouted as an idea to improve the UNIX OS
- He suggested improvements but was rejected by UNIX designers.




PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

LINUX

Linux is one of popular version of UNIX operating System. It is open source as its source code is freely available. It is free to use.



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



Components of Linux System

- Kernel – Kernel is the core part of Linux. It is responsible for all major activities of this operating system. It consists of various modules and it
- System Library – System libraries are special functions or programs using which application programs or system utilities accesses Kernel's features.
- System Utility – System Utility programs are responsible to do specialized, individual level tasks.




PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENG.
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK A.J COLLEGE OF ENGINEERING

Siruseri IT Park, Egattur, Chennai - 603 103.

Department of Mathematics

MA8491 NUMERICAL METHODS

INTERPOLATION AND APPROXIMATION

Tutorial Problems

PART -A

1. When to use Newton's forward interpolation and when to use Newton's backward interpolation formula? R-13 April/May 2018
2. Find the Lagrange's interpolating polynomial passing through the points (0,0), (1,1), (2,20).
3. Write down the Newton's backward interpolation formula
4. For cubic splines, what are the 4n conditions required to evaluate the unknowns?
5. Write down the expression for $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$ at $x = x_n$ by Newton's backward formula.

PART-B

1. Using Lagrange's formula, find the polynomial to the given data.

X: 1 2 4
Y: 4 5 13

2. Using Lagrange's formula, find the polynomial to the given data

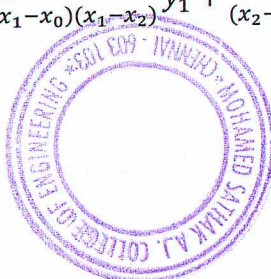
X	0	1	3
Y	5	6	50

HINT:

1. The Newton's forward interpolation formula is used to interpolate the values of y near the beginning of the table value and also for extrapolating the values of y a short distance ahead (to the left of) y_0

The Newton's forward interpolation formula is used to interpolate the values of y near the beginning of the table value and also for extrapolating the values of y a short distance ahead (to the right of) y_n

$$2. f(x) = \frac{(x-x_1)(x-x_2)}{(x_0-x_1)(x_0-x_2)} y_0 + \frac{(x-x_0)(x-x_2)}{(x_1-x_0)(x_1-x_2)} y_1 + \frac{(x-x_0)(x-x_1)}{(x_2-x_0)(x_2-x_1)} y_2$$



Handwritten signature

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

ANS: $9x^2 - 8x$.

3. Newton's backward interpolation formula

$$y(x) = y_n + \frac{v}{1!} \nabla y_n + \frac{v(v+1)}{2!} \nabla^2 y_n + \frac{v(v+1)(v+2)}{3!} \nabla^3 y_n + \dots \quad \text{Where } v = \frac{x - x_n}{h}$$

Newton's forward formula

$$y(x) = y_0 + \frac{u}{1!} \Delta y_0 + \frac{u(u-1)}{2!} \Delta^2 y_0 + \frac{u(u-1)(u-2)}{3!} \Delta^3 y_0 + \dots \quad \text{Where } u = \frac{x - x_0}{h}$$

4.

- (i) The function values must be equal at the interior knots (2n-2) conditions.
- (ii) The first and last functions must pass through the end points (2 conditions).
- (iii) The first derivatives at the interior knots must be equal (n-1) conditions.
- (iv) The second derivatives at the interior knots must be equal to (n-1) conditions

5. $f'(x) = \frac{dy}{dx} = \frac{1}{h} \{ \nabla y_n + \frac{1}{2} \nabla^2 y_n + \frac{1}{3} \nabla^3 y_n + \frac{1}{4} \nabla^4 y_n + \dots \}$

$$f''(x) = \frac{d^2y}{dx^2} = \frac{1}{h^2} \{ \nabla^2 y_n + \nabla^3 y_n + \frac{11}{12} \nabla^4 y_n + \dots \}$$

Sathak
Start-In-charge

Om
HOD.

Ush



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Siruseri IT Park, Egattur, Chennai - 603 103

Department of Information and Technology

Course End Survey

Name of the Subject with Subject Code: CS8491/ Computer Architecture

The Course end survey is a questionnaire on student experiences distributed at the conclusion of each Course. The purpose of this survey is to help us to understand how well this Course enabled the students to learn, and to improve this Course delivery in the future.

Name: R. Prakash

Univ. Reg. No : 311817205005

Department: IT

Year/Semester : II/IV

II. Comments on materials presented and quality of teaching

Parameters on Course delivery	Excellent	Good	Average	Poor
Overall the lectures presented were	✓			
The hand out material for Each unit was		✓		

II. Assessment of Course Outcomes:

The Course outcomes are statements that describe the expected accomplishments by the student at the end of the Course.

Course Outcomes		Level of Preparedness / achievement			
		Excellent (>8)	Good (6-8)	Fair (5-6)	Poor (≤5)
CO - I	Explain the basics structure of computers, operations and instructions.	✓			
CO - II	Apply the functions of arithmetic operations	✓			
CO - III	Distinguish the pipelined execution and various hazards		✓		
CO - IV	Compare parallel processing architectures		✓		
CO - V	Describe the various memory systems and I/O communication.			✓	

R. Prakash

Signature of the Student

Rev Date:

Format no:

Rev No:0.0



Handwritten signature in green ink.

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.

Exit survey

Name: FAIZAL KHAN

Department: INFORMATION TECHNOLOGY Semester: III

Email: it.fazal.khan@msaice-edu.in

	Exit survey Questions	Attainment Level				
		1	2	3	4	5
1	Ability to apply the knowledge of mathematics, science, engineering fundamentals to solve engineering problems.				✓	
2	Ability to Identify , review research literature and analyze Engineering problems.				✓	
3	Ability to design solutions for complex engineering problemswith appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.				✓	
4	Ablity to conduct experiments,analyse data, interpret data and synthesise the information to provide valid conclusions.				✓	
5	Ability to Create, select and use modern tools in developing solutions.					✓
6	Ability to apply reasoning to evaluate societal, health, safety, legal and cultural issuesand the consequent responsibilities relevant to the professional engineering practice..					✓
7	Ability to understand the impact of the engineering solutions in societal and environmental contexts and the need for sustainable development.				✓	
8	Abilityto apply ethical principles in your responsibilities					✓
9	Ability to Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings				✓	
10	Ability to articulate ideas, communicate effectively, in writing and verbally.					✓
11	Ability to work, as a member and leader in a team, to manage projects and in multidisciplinary environments.				✓	
12	Ability to engage in independent and life-long learning				✓	
General						
13	The overall environment was conducive for learning and encourages innovation.					✓
14	The teaching Faculty was competent and dedicated to meet the objectives of the program.					✓
15	Appropriate lab facilities and infrastructure were provided to meet the requirements of the program.					✓
16	Sufficient co-curricular and extra-curricular activities were organized for the personal grooming.				✓	
17	Scholarships/grants were available in case of need.				✓	
18	I am confident that I can compete with graduates from any top-rated university in my field and excel in practical life.					✓
19	I would definitely recommend the programme to others				✓	
20	General Feedback: I learnt and experience a lot of ideas from the institution to implement the same for my career					

PRINCIPAL

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, II Phase
Chennai-603 103.

Signature of the Student
Faizal Khan

Exit survey

Name: GANGADepartment: ITSemester: IIIEmail: it.ganga@msaice-edu.in

	Exit survey Questions	Attainment Level				
		1	2	3	4	5
1	Ability to apply the knowledge of mathematics, science, engineering fundamentals to solve engineering problems.				✓	
2	Ability to Identify , review research literature and analyze Engineering problems.					✓
3	Ability to design solutions for complex engineering problemswith appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.				✓	
4	Ability to conduct experiments,analyse data, interpret data and synthesise the information to provide valid conclusions.					✓
5	Ability to Create, select and use modern tools in developing solutions.					✓
6	Ability to apply reasoning to evaluate societal, health, safety, legal and cultural issuesand the consequent responsibilities relevant to the professional engineering practice..					✓
7	Ability to understand the impact of the engineering solutions in societal and environmental contexts and the need for sustainable development.				✓	
8	Abilityto apply ethical principles in your responsibilities				✓	
9	Ability to Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings					✓
10	Ability to articulate ideas, communicate effectively, in writing and verbally.				✓	
11	Ability to work, as a member and leader in a team, to manage projects and in multidisciplinary environments.					✓
12	Ability to engage in independent and life-long learning				✓	
General						
13	The overall environment was conducive for learning and encourages innovation.				✓	
14	The teaching Faculty was competent and dedicated to meet the objectives of the program.					✓
15	Appropriate lab facilities and infrastructure were provided to meet the requirements of the program.					✓
16	Sufficient co-curricular and extra-curricular activities were organized for the personal grooming.					✓
17	Scholarships/grants were available in case of need.				✓	
18	I am confident that I can compete with graduates from any top-rated university in my field and excel in practical life.				✓	
19	I would definitely recommend the programme to others					✓
20	General Feedback: I learnt and experience a lot of ideas from the institution to implement the same for my career					

PRINCIPAL

MOHAMED SATHAK A.J COLLEGE OF
34, Rajiv Gandhi Road (OMR), Siruseri,
Chennai-603 103.

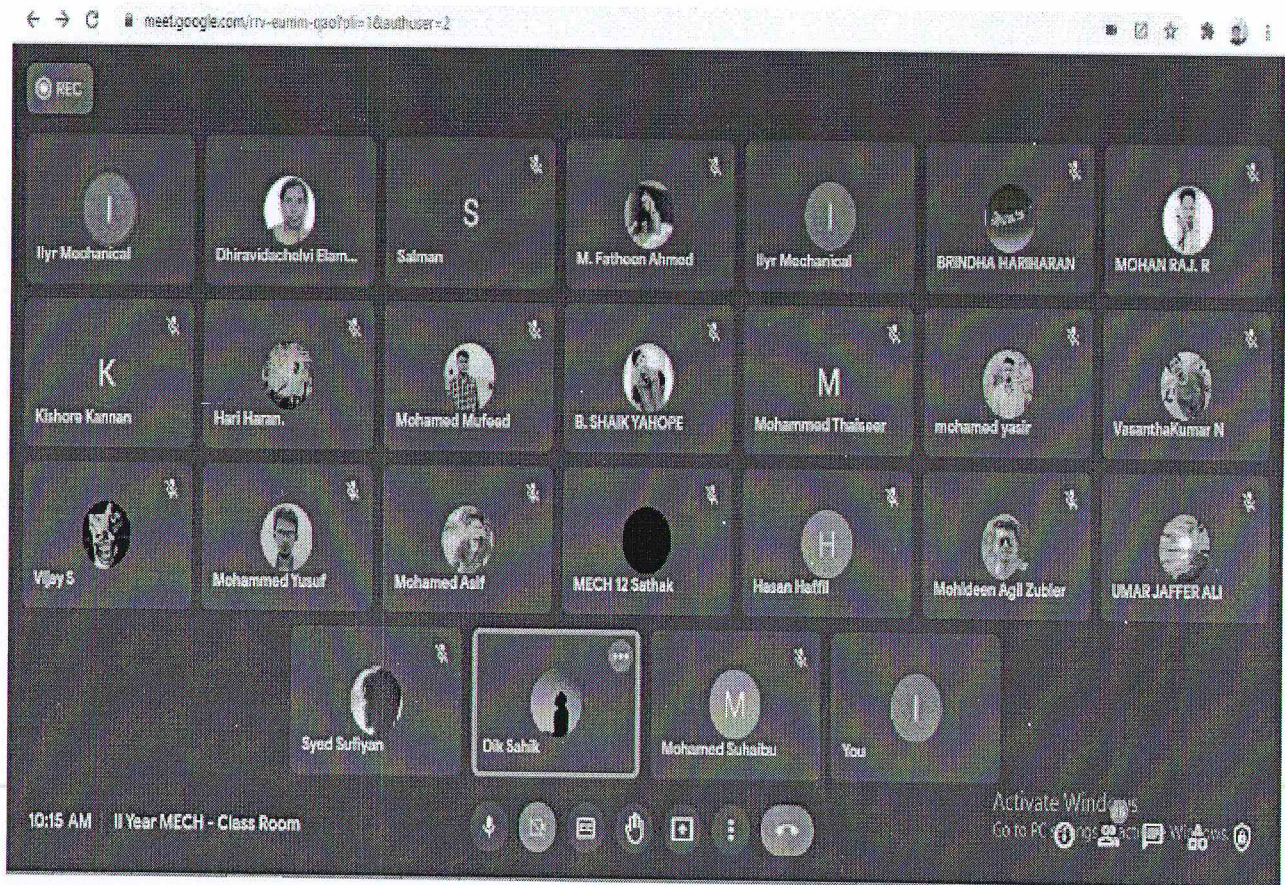
Ganga
Signature of the Student

Format no:

Rev No:0.0

Rev Date:25.01.18

Online Parents Teacher meeting




PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34 Rajiv Gandhi Road (OMR), Siruseri,
Chennai-603 103

Accessing marks from Anna University web portal by students

COE1 - Anna University COE | en X Anna University - COE, Chennai X +

Not secure | coe1annauniv.edu/home/students_corner.php*

Apps Gmail

 **Anna University, Chennai**
Office of the Controller of Examinations
Pre- Examination Monitoring System

Welcome VISHAL A!!

[Log out](#)

[PROFILE](#) [EXAM SCHEDULE](#) [REG PREVIEW](#) [ASSESSMENT](#) [EXAM RESULTS](#) [ELECTIVE](#) [GRIEVANCE](#)

Print

Result for Nov. / Dec. Examination, 2021

Register Number : 311820205050
Name : VISHAL A
Branch : B.Tech. Information Technology

Semester	Subject Code	Grade	Result
03	CS8351	A+	PASS
03	CS8361	O	PASS
03	CS8362	A+	PASS
03	CS8363	O	PASS
03	CS8364	A+	PASS
03	CS8365	A+	PASS
03	EC8374	O	PASS
03	HS8381	O	PASS
03	MA8351	A+	PASS

Note : [Grade]# The Screen was not shared during the Examination. If this is repeated in

12:42
24-05-2022

COE1 - Anna University COE | en X Anna University - COE, Chennai X +

Not secure | coe1annauniv.edu/home/students_corner.php

Apps Gmail

 **Anna University, Chennai**
Office of the Controller of Examinations
Pre- Examination Monitoring System

Welcome HEMALATHA C !!

[Log out](#)

[PROFILE](#) [EXAM SCHEDULE](#) [REG PREVIEW](#) [ASSESSMENT](#) [EXAM RESULTS](#) [ELECTIVE](#) [GRIEVANCE](#)

Print

Result for Nov. / Dec. Examination, 2021

Register Number : 311820205049
Name : HEMALATHA C
Branch : B.Tech. Information Technology

Semester	Subject Code	Grade	Result
03	CS8351	A+	PASS
03	CS8361	A+	PASS
03	CS8362	O	PASS
03	CS8363	O	PASS
03	CS8364	A+	PASS
03	CS8365	A+	PASS
03	EC8374	A	PASS
03	HS8381	O	PASS
03	MA8351	O	PASS

Note : [Grade]# The Screen was not shared during the Examination. If this is repeated in

12:43
24-05-2022



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING



PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34 Rajiv Gandhi Road (OMR) Srinagar II Palu
Chennai-600 1