SR ENGINEERING COLLEGE

(Affiliated to JNTU, Hyderabad, Recognized by AICTE, New Delhi, Accredited by NBA, New Delhi)

Interactive learning methods - Active learning methods

Academic Year: 2017-2018,   III Year-II Semester

Subject: Digital Communications,   **Section:** III ECE-A

Activity Name: Stump your partner

Topic Name: Recalling Basics of Analog Communications

Activity Description:

S. No	Topic Name	Description of method	Outcome
1	Basic Principles of Communications System	i. Students take a minute to create a challenging question based on the lecture content up to the point. ii. Students pose the question to the persons sitting next to them. iii. Ask students to write on their questions and hand them in. These questions can be used to create tests or exams.	It is very useful to students to analyze different modulation techniques.

Rubrics followed:

S.No	Criteria	Scale of Assessment		
		Satisfactory **(0-5M)**	**Good** **(6-8M)**	**Excellent** **(9-10M)**
1	Creativity	Unable to predict problem outcomes for the given input data set.	Approximately predicts and Defends problem outcomes.	Predict and defend problem outcomes.
2	Response	Student is uncomfortable with information. Seems novice and can answer basic questions only.	Student has competent knowledge and is at ease with information. Can answer questions.	Student has presented full knowledge of both problem and solution. Answers to questions are strengthened by rationalization and explanation.

Evaluation Sheet:

S.No	Hall ticket No	Marks Scored	
		Creativity (Max.10M)	**Response (Max.10M)**
1	15K41A0401	08	07
2	15K41A0402	08	08
3	15K41A0403	08	06
4	15K41A0404	05	06
5	15K41A0405	05	05
6	15K41A0406	05	06
7	15K41A0407	06	05

8	15K41A0408	06	07
9	15K41A0409	07	08
10	15K41A0410	07	06
11	15K41A0411	08	06
12	15K41A0412	07	07
13	15K41A0413	07	08
14	15K41A0414	07	06
15	15K41A0415	06	07
16	15K41A0416	08	08
17	15K41A0417	06	07
18	15K41A0418	08	07
19	15K41A0419	08	08
20	15K41A0420	08	06
21	15K41A0421	05	06
22	15K41A0422	05	05
23	15K41A0423	05	06
24	15K41A0424	06	05
25	15K41A0425	06	07
26	15K41A0426	07	08
27	15K41A0427	07	06
28	15K41A0428	08	06
29	15K41A0429	07	07
30	15K41A0430	07	08
31	15K41A0431	07	06
32	15K41A0432	06	07
33	15K41A0433	08	08
34	15K41A0434	06	07
35	15K41A0435	08	07
36	15K41A0436	08	08
37	15K41A0437	08	06
38	15K41A0438	05	06
39	15K41A0439	05	05
40	15K41A0440	05	06
41	15K41A0441	06	05
42	15K41A0442	06	07
43	15K41A0443	07	08
44	15K41A0444	07	06
45	15K41A0445	08	06
46	15K41A0446	07	07
47	15K41A0447	07	08
48	15K41A0448	07	06
49	15K41A0449	06	07
50	15K41A0450	08	08
51	15K41A0451	06	07
52	15K41A0452	08	07
53	15K41A0453	08	08
54	15K41A0454	08	06
55	15K41A0455	05	06
56	15K41A0456	05	05
57	15K41A0457	05	06

58	15K41A0458	06	05
59	15K41A0459	06	07
60	15K41A0460	07	08
61	15K41A0461	07	06
62	15K41A0462	08	06
63	15K41A0463	07	07
64	15K41A0464	07	08
65	15K41A0465	07	06
66	15K41A0466	06	07

Activity Pics:

Reflections:
1. High-level thinking is needed for this activity
2. This activity takes more time to complete.
3. The performance of students in this activity can be improved by asking the students to prepare a question on given topic before attending activity.

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Academic Year: 2017-2018,   II Year-II Semester

Subject: Linear Integrated Circuits and Applications

Section: II ECE-B

Activity Name: Jigsaw
Topic Name: ADC and DAC specifications

Activity Description

S. No	Topic Name	Description of method	Outcome

1	ADC and DAC specifications	i. Students are divided into teams, each team consists of six members. ii. Every team is given with different set of question covering the entire topic. iii. Each team prepares their assigned topics iv. The teams shuffled to form new teams, consisting of one student from the previous teams.so, that the shuffled teams are expertise in all the questions. v. Now the teams are ready with all the solutions. Now they discuss among them.	There was an emphasis to learn and explain at the same moment, so students were bound to understand the concepts without wasting their time. Almost all were able to answer the questions based on that activity.

Rubrics

S.No	Criteria	Scale of Assessment		
		Satisfactory (0-5M)	Good (6-8M)	Excellent (9-10M)
1	Team work	Distracts or discourages other group members from solving problems.	Cooperates with other group members in a reasonable manner	Actively engages and cooperates with other group members in an effective manner.
2	Presentation skills	Less relevant content, poor coherence with inadequate illustrations.	More relevant content, moderate coherence with less illustrations.	More relevant content, good coherence with adequate illustrations.
3	Answering ability	Student is uncomfortable with information. Seems novice and can	Student has competent knowledge and is at ease with information.	Student has presented full knowledge of both problem

		answer basic questions only.	Can answer questions.	and solution. Answers to questions are strengthened by rationalization and explanation.

Evaluation Sheet:

S.No	Hall ticket No	Marks Scored	
		Creativity (Max.10M)	Response (Max.10M)
1	Roll No	08	07
2	16K41A0402	08	08
3	16K41A0404	08	06
4	16K41A0407	05	06
5	16K41A0410	05	05
6	16K41A0413	05	06
7	16K41A0414	06	05
8	16K41A0417	06	07
9	16K41A0418	07	08
10	16K41A0421	07	06
11	16K41A0421	08	06
12	16K41A0424	07	07
13	16K41A0425	07	08
14	16K41A0427	07	06
15	16K41A0429	06	07
16	16K41A0430	08	08
17	16K41A0431	06	07
18	16K41A0432	08	07
19	16K41A0435	08	08
20	16K41A0437	08	06
21	16K41A0438	05	06
22	16K41A0441	05	05
23	16K41A0442	05	06
24	16K41A0443	06	05
25	16K41A0444	06	07
26	16K41A0445	07	08
27	16K41A0447	07	06
28	16K41A0451	08	06
29	16K41A0452	07	07
30	16K41A0455	07	08
31	16K41A0464	07	06
32	16K41A0467	06	07
33	16K41A0469	08	08

34	16K41A0471	06	07
35	16K41A0473	08	07
36	16K41A0474	08	08
37	16K41A0476	08	06
38	16K41A0477	05	06
39	16K41A0480	05	05
40	16K41A0481	05	06
41	16K41A0482	06	05
42	16K41A0485	06	07
43	16K41A0488	07	08
44	16K41A0492	07	06
45	16K41A0493	08	06
46	16K41A0495	07	07
47	16K41A04A0	07	08
48	16K41A04A1	07	06
49	16K41A04A6	06	07
50	16K41A04A7	08	08
51	16K41A04A9	06	07
52	16K41A04C1	08	07
53	16K41A04C2	08	08
54	16K41A04C4	08	06
55	16K41A04C8	05	06
56	16K41A04C8	05	05
57	16K41A04D0	05	06
58	16K41A04D2	06	05
59	16K41A04D7	06	07
60	16K41A04D8	07	08
61	16K41A04E2	07	06
62	16K41A04E5	08	06
63	16K41A04E9	07	07
64	16K41A04F0	07	08
65	16K41A04F1	07	06
66	16K41A04F6	06	07

Activity pics :

Reflections:

1.Most of the students are doing good performance in the activity, and few students are still facing problem in understanding of question.

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Academic Year: 2017-2018,   III Year-I Semester

Subject: MICRO PROCESSOR & MICRO CONTROLLER

Section: III ECE-B

Activity Name: Group Problem solving
Topic Name: Basics of microprocessor

Activity Description

S. No	Topic Name	Description of method	Outcome
1	Basics of microprocessor	i. Students are divided into teams, each team consists of six members. ii. Every team is given with different set of question covering the entire topic. iii. Each team prepares their assigned topics iv. The teams shuffled to form new teams, consisting of one student from the previous teams.so, that the shuffled teams are expertise in all the questions. v. Now the teams are ready with all the solutions. Now they discuss among them.	There was an emphasis to learn and explain at the same moment, so students were bound to understand the concepts without wasting their time. Almost all were able to answer the questions based on that activity.

Rubrics

S.No	Criteria	Scale of Assessment		
		Satisfactory (0-5M)	Good (6-8M)	Excellent (9-10M)
1	Team work	Distracts or discourages other group members from solving problems.	Cooperates with other group members in a reasonable manner	Actively engages and cooperates with other group members in an effective manner.
2	Presentation skills	Less relevant content, poor coherence with	More relevant content, moderate coherence with less illustrations	More relevant content, good coherence with adequate illustrations.

3	Answering ability	Student is uncomfortable with information. Seems novice and can answer basic questions only.	Student has competent knowledge and is at ease with information. Can answer questions.	Student has presented full knowledge of both problem and solution. Answers to questions are strengthened by rationalization and explanation.
			.	
		inadequate illustrations.		

Evaluation Sheet:

S.No	Group code	Hall ticket No	Marks Scored	
			Creativity (Max.10M)	Response (Max.10M)
1	A	Roll No	08	07
		16K41A0402	08	08
		16K41A0441	08	06
		16K41A0407	05	06
		16K41A04F0	05	05
		16K41A0430	05	06
2	B	16K41A0414	06	05
		16K41A04D2	06	07
		16K41A0443	07	08
		16K41A0438	07	06
		16K41A04D8	08	06
		16K41A0424	07	07
3	C	16K41A0455	07	08
		16K41A0427	07	06
		16K41A04F1	06	07
		16K41A0413	08	08
		16K41A0431	06	07
		16K41A0432	08	07
4	D	16K41A0467	08	08
		16K41A0437	08	06
		16K41A0421	05	06
		16K41A0404	05	05
		16K41A0442	05	06
		16K41A0418	06	05
5	E	16K41A0444	06	07
		16K41A04C2	07	08

		16K41A0447	07	06
		16K41A0451	08	06
		16K41A0452	07	07
		16K41A0425	07	08
	F	16K41A0464	07	06
		16K41A0435	06	07
		16K41A0469	08	08
		16K41A0471	06	07
		16K41A04A0	08	07
6		16K41A0474	08	08
	G	16K41A04A6	08	06
		16K41A0477	05	06
		16K41A0480	05	05
		16K41A0495	05	06
		16K41A0482	06	05
7		16K41A0485	06	07
	H	16K41A0492	07	08
		16K41A0488	07	06
		16K41A0493	08	06
		16K41A0481	07	07
		16K41A0473	07	08
8		16K41A04A1	07	06
	I	16K41A0476	06	07
		16K41A04A7	08	08
		16K41A04A9	06	07
		16K41A04C1	08	07
		16K41A0445	08	08
9		16K41A04C4	08	06
	J	16K41A04C8	05	06
		16K41A04E5	05	05
		16K41A04D0	05	06
		16K41A0417	06	05
		16K41A04D7	06	07
10		16K41A0421	07	08
	K	16K41A04E2	07	06
		16K41A04F9	08	06
		16K41A04E9	07	07
		16K41A0410	07	08
		16K41A0429	07	06
11		16K41A04F6	06	07

Activity pics :

Reflections:

1. Some questions are easy to solve, so we need to the give the questions which improves thinking and analyzing capabilities.
2. Groups are formed randomly, so some groups are having bright students and some groups are having poor students. So only few groups are performing well in this activity, to overcome this drawback before conducting this activity, groups are formed with mixed level of students.

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Academic Year: 2017-2018,   **II Year-I Semester**

Subject: Probability Theory and stochastic processes,   **Section: II ECE-A**

Activity Name: Stump your partner

Activity Description:

S. No	Topic Name	Description of method	Outcome
1	Recalling of differentiation and	i. Presenting students with a problem.	This activity

	Integration formulae	ii. Providing some structure or guidance toward solving the problem. iii. Reaching an outcome or solution.	will develop team work among students.

Rubrics:

S.No	Criteria	Scale of Assessment		
		Satisfactory (0-5M)	**Good (6-8M)**	**Excellent (9-10M)**
1	Team work	Distracts or discourages other group members from solving problems.	Cooperates with other group members in a reasonable manner	Actively engages and cooperates with other group members in an effective manner.
2	Presentation skills	Less relevant content, poor coherence with inadequate illustrations.	More relevant content, moderate coherence with less illustrations.	More relevant content, good coherence with adequate illustrations.
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Evaluation Sheet:

S.No	Hall ticket No	Marks Scored	
		Creativity (Max.10M)	Response (Max.10M)
1	16K41A0401	08	07
2	16K41A0402	08	08
3	16K41A0403	08	06
4	16K41A0404	05	06
5	16K41A0405	05	05
6	16K41A0406	05	06
7	16K41A0407	06	05
8	16K41A0408	06	07
9	16K41A0409	07	08
10	16K41A0410	07	06
11	16K41A0411	08	06
12	16K41A0412	07	07
13	16K41A0413	07	08
14	16K41A0414	07	06
15	16K41A0415	06	07
16	16K41A0416	08	08
17	16K41A0417	06	07
18	16K41A0418	08	07
19	16K41A0419	08	08
20	16K41A0420	08	06
21	16K41A0421	05	06
22	16K41A0422	05	05
23	16K41A0423	05	06
24	16K41A0424	06	05
25	16K41A0425	06	07
26	16K41A0426	07	08
27	16K41A0427	07	06
28	16K41A0428	08	06
29	16K41A0429	07	07
30	16K41A0430	07	08
31	16K41A0431	07	06
32	16K41A0432	06	07
33	16K41A0433	08	08
34	16K41A0434	06	07
35	16K41A0435	08	07
36	16K41A0436	08	08
37	16K41A0437	08	06
38	16K41A0438	05	06
39	16K41A0439	05	05
40	16K41A0440	05	06
41	16K41A0441	06	05
42	16K41A0442	06	07
43	16K41A0443	07	08

| 44	16K41A0444	07	06
45	16K41A0445	08	06
46	16K41A0446	07	07
47	16K41A0447	07	08
48	16K41A0448	07	06
49	16K41A0449	06	07
50	16K41A0450	08	08
51	16K41A0451	06	07
52	16K41A0452	08	07
53	16K41A0453	08	08
54	16K41A0454	08	06
55	16K41A0455	05	06
56	16K41A0456	05	05
57	16K41A0457	05	06
58	16K41A0458	06	05
59	16K41A0459	06	07
60	16K41A0460	07	08
61	16K41A0461	07	06
62	16K41A0462	08	06
63	16K41A0463	07	07
64	16K41A0464	07	08
65	16K41A0465	07	06
66	16K41A0466	06	07

Activity Pics:

Reflections:

1. Groups are formed randomly, so some groups are having bright students and some groups are having poor students. So only few groups are performing well in this activity, to overcome this drawback before conducting this activity, groups are formed with mixed level of students.

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Subject: Digital Communications,   Academic Year: 2018-2019

Activity Name: Open book exam
Topic Name: Pulse and Modulation Techniques

Activity Pics:

(a)
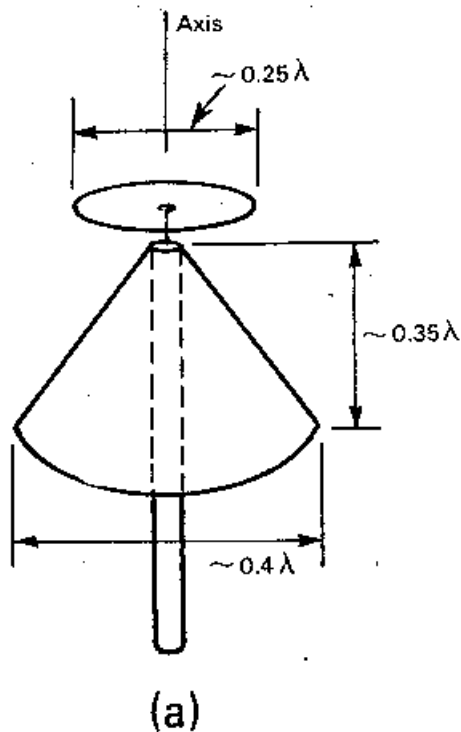
Evaluation Sheet:

S.N0	Hall ticket No	Marks Scored(Max.10M)

1	16K41A04C2	07
2	16K41A04D3	06
3	16K41A04G6	07
4	16K41A0443	08
5	16K41A0491	08
6	16K41A0498	07
7	16K41A0490	06
8	16K41A0420	07
9	16K41A04E3	08
10	17K45A0402	07
11	17K45A0404	06
12	17K45A0409	06
13	17K45A0413	08
14	16K41A0405	07
15	16K41A04C8	07
16	17K45A0401	08
17	17K45A0402	05

6. Subject: Digital Communications, Academic Year: 2018-2019

Activity Name: Objective Test
Topic Name: Introduction to Digital communication Systems

Activity Pics:

(a)
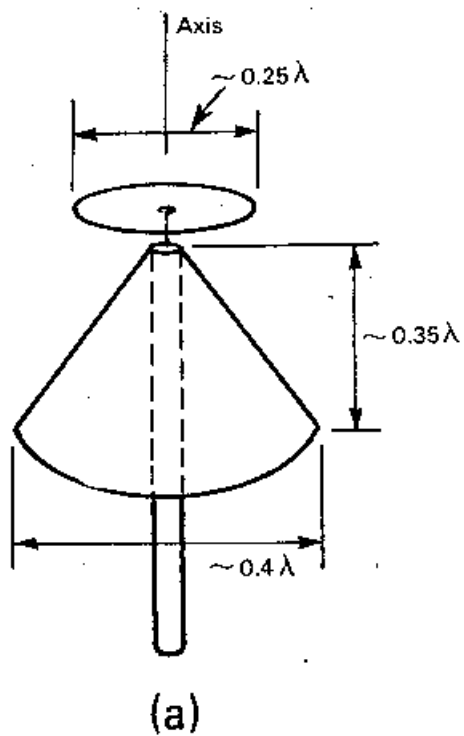
Evaluation Sheet:

S.N0	Hall ticket No	Marks Scored(Max.10M)
1	16K41A04C2	06
2	16K41A04D3	07
3	16K41A04G6	08
4	16K41A0443	08
5	16K41A0491	07
6	16K41A0498	08
7	16K41A0490	05
8	16K41A0420	08
9	16K41A04E3	07
10	17K45A0402	06
11	17K45A0404	05
12	17K45A0409	06
13	17K45A0413	07
14	16K41A0405	08
15	16K41A04C8	06
16	17K45A0401	06
17	17K45A0402	08

7. Subject: Probability Theory and stochastic processes

Academic Year: 2018-2019

Activity Name: Group Problem solving
Topic Name: Distribution and Density Functions

Activity Pics:

Evaluation Sheet:

S.No	Batch code	Hall ticket No	Marks Scored		
			Team work (Max.10M)	Presentation skills (Max.10M)	Answering ability (Max.10M)
01	A	17K41A0401	07	08	08
		17K41A0402	06	08	07
		17K41A0403	07	08	07
02	B	17K41A0404	08	06	06
		17K41A0405	06	07	07
		17K41A0406	06	08	08
03	C	17K41A0407	07	07	08
		17K41A0408	07	08	06

		17K41A0409	05	06	08
		17K41A0410	08	07	07
04	D	17K41A0411	06	07	07
		17K41A0412	07	08	07
		17K41A0413	07	07	07
		17K41A0414	07	08	07
05	E	17K41A0415	05	05	07
		17K41A0416	05	07	08
		17K41A0417	06	05	07

Reflections:

Groups are formed randomly, so some groups are having bright students and some groups are having poor students. So only few groups are performing well in this activity, to overcome this drawback before conducting this activity, groups are formed with mixed level of students.

8. Subject: Probability Theory and stochastic processes

Academic Year: 2018-2019

Activity Name: Stump your partner
Topic Name: Recalling of Differentiation & Integration Formulas

<u>Activity Pics:</u>

Evaluation Sheet:

Hall ticket No	Marks Scored	
	Creativity (Max.10M)	Response (Max.10M)
17K41A0401	07	06
17K41A0402	07	07
17K41A0403	07	06
17K41A0404	08	06
17K41A0405	07	05
17K41A0406	08	06
17K41A0407	07	05
17K41A0408	07	07
17K41A0409	06	08
17K41A0410	05	06
17K41A0411	08	06
17K41A0412	08	07
17K41A0413	05	08
17K41A0414	08	06
17K41A0415	07	07
17K41A0416	05	08
17K41A0417	05	07

Reflections:

1. High-level thinking is needed for this activity; due to this Students are unable to prepare/Answer a logical question using fundamental of Integration and differentiation formulas.
2. Time taken to conduct activity is more.
3. To improve the performance of students in this activity ask students to prepare a question on given topic before attending activity.

2. Subject: Signals and Systems,   Academic Year: 2018-2019

Activity Name: Teams-Games-Tournaments
Topic Name: Fourier Series

Activity Pics:

Evaluation Sheet:

S.No	Batch code	Hall ticket No	Marks Scored		
			Team work (Max.10M)	Presentation skills (Max.10M)	Answering ability (Max.10M)
01	A	17K41A0401	08	07	08
		17K41A0402	08	07	08
		17K41A0403	08	06	08
02	B	17K41A0404	05	05	07
		17K41A0405	05	05	05
		17K41A0406	05	07	06
03	C	17K41A0407	06	08	06
		17K41A0408	06	07	05
		17K41A0409	07	08	07
04	D	17K41A0410	07	08	08
		17K41A0411	07	08	08
		17K41A0412	07	06	07
		17K41A0413	08	07	07
05	E	17K41A0414	07	08	07
		17K41A0415	06	05	07
		17K41A0416	08	07	08
		17K41A0417	06	08	07

Reflections:

1. Most of the students are doing good performance in the activity, and few students are still facing problem in understanding of question.