



MAHENDRA ENGINEERING COLLEGE

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Accredited by NAAC 'A' Grade & NBA Tier- I (WA) UG: CSE,ECE,EEE

Mahendhirapuri, Mallasamudram, Namakkal Dt. - 637 503.



Department of Electronics and Communication Engineering

Academic Year: 2020-2021 (Odd Semester)

Report on Event (RoE)

Year/Semester/Branch/Section: III Year -V Semester -ECE

1	Name of the Event (Seminar/Workshop/ Conference /FDP /Anyother)	Participative Learning (Flipped Classroom)- Quiz
2	Name of the Course (Subject)	17EC14503-Digital Signal Processing
3	Title (Topic)	IIR FILTERS
4	Objective(s)	Understand the fundamentals of IIR filters
5	Name of the Student(s)	All the Students
6	Name of the Faculty Member	Mr.M.Ravikumar
7	Date of the Event	10.11.2020
8	Venue of the Event	Online mode – Google Forms https:// forms.gle/FUXmMVpMtDtVoWQr8
8	Total Participants	63
9	Beneficiary (Students (branch /year) / Staff)	III Year- V Semester ECE
10	ProgrammeDescription	All the students gone through the video lecture and understand the fundamentals of IIR Filter and its application This quiz provides opportunity and foundation to the students to understanding the various filter
11	Outcome(s)	Design IIR digital filter using various techniques

Signature of the Faculty

HoD

Principal



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Name of the Faculty : Mr.M.RAVIKUMAR
Name of the Subject : 17EC14503-Digital Signal Processing
Topic : IIR Filters- III Year -ECE
Date : 10-11-2020
Class Activity Design -1 : Quiz
Main Video Source URL :

Video : <https://www.youtube.com/watch?v=glpQiVgmOkM&t=1542s>

<https://www.youtube.com/watch?v=zM1DkXn1FjE&t=176s>

Assessment Strategy : 13 QUESTIONS

Expected duration : 25 Minutes

Watch video and submit answers to these questions before coming to class

Google Meet link: <https://meet.google.com/vat-deem-yug>

Google Forms: [https:// forms.gle/FUXmMVpMtDtVoWQr8](https://forms.gle/FUXmMVpMtDtVoWQr8)

Online Feedback Link: <https://forms.gle/FGqRASH6dPdmy1BQ6>

Peer Instruction Strategy – What Student Does

- Answer each question individually
- Students will discuss with peers and come to consensus.
- Peer discussion was conducted based on their answers
- Listen to the instructors explanation
- Finally, Give feedback on the questions and answers discussed

Summary

- In both the above strategies, students are required to go beyond mere listening and perform of prescribed steps
- Students are required to think deeply about the content they were familiarized in out-of-class and do higher order thinking
- A feedback session was conducted in either through peer discussion or instructor summary at the end of the activity



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List of Enclosures (RoE)

E.C.F.

Name of the Event: Participative Learning (Flipped Classroom)-Quiz-IIR Filters

Date of the Event: 10.11.2020

Time: 11.45-12.10PM

S.No.	Description	Remarks
1	Presentation Handouts / Quiz questions	√
2	Participants Attendance	√
3	Participants Feedback	√
4	Event Photos	√
5	PPT slide about the program/ Video template	√

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Participative Learning (Flipped Classroom) - ON

Quiz –“IIR FILTERS”

Participants Attendance Sheet

Name of the Course:	Digital Signal Processing	Date:	10-11-2020
Branch/Year/Sec.:	III Year –VSem-ECE	Venue:	Online mode – Google Forms - https://forms.gle/FUXmMVpMtDtVoWQr8

S.No.	Roll Number	Student Name
1	181041007	BALAJI C
2	181041008	BALAN R
3	181041009	BALUBOINA NAVEEN
4	181041010	BASKAR M
5	181041011	BOOVESH L
6	181041012	CHERUKUMUDI DAMODHAR
7	181041013	DASARI VENKATA SAI
8	181041014	DEEPA R
9	181041015	DEEPIKA M
10	181041016	DEEPTHISRI K A
11	181041017	DEVI SHRI K
12	181041018	DEVIKA S
13	181041019	DHARSHANAKUMAR K J
14	181041020	DHARUN PRAKASH D
15	181041021	DHILIPKUMAR P
16	181041022	DINAKARASU S
17	181041023	DINESHKUMAR L
18	181041037	JOTHIMANI.C
19	181041038	JOTHISVARUPAN S
20	181041039	KALAIARASAN B
21	181041040	KALAIYARASI M
22	181041041	KALAVAKURU VAMSI
23	181041042	KARTHI KEYAN B
24	181041043	KARTHICK M
25	181041044	KAVIPRIYA R
26	181041045	KEERTHIKA R

27	181041046	KOKILA T
28	181041047	KOWSIKA V
29	181041048	KRISHNAPRAKASH P
30	181041049	MAHALAKSHMI S
31	181041051	MANOJKUMAR K C
32	181041052	MARUDHU RAJ V
33	181041053	MATHISALINI B
34	181041054	MENAGA PRIYA S
35	181041055	MUCCHALA JAGADEESH
36	181041056	MURALI T
37	181041057	NAMITHA R
38	181041058	NARENDHIRAN R M
39	181041059	NARINDAR K
40	181041061	NAVEEN R
41	181041062	NAVEENKUMAR A
42	181041064	NITHESH KAMAL M
43	181041065	PALEPU PRASAD
44	181041066	PALLAVI AMARNADH
45	181041067	PAPPU SAI TARUN REDDY
46	181041068	PAVITHRA S
47	181041069	PERIYASAMY V
48	181041097	SONAA S S
49	181041098	SOWMIYA D
50	181041099	SRI BALAJI T
51	181041100	SRIRAM S
52	181041102	SUGANYA V
53	181041103	SURIYA S D
54	181041104	SURYA K
55	181041107	UKESH P
56	181041108	VAISHNAVI J
57	181041109	VASANTH M
58	181041111	VASANTHAKUMAR M
59	181041115	VINCY DAYANA R
60	181041117	VINOTH C
61	181041118	VIVEK R
62	181043801	ARTHI S
63	181043802	DURGA K


Signature of Faculty Member


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Flipped Classroom Activity -Quiz –IIR Filters

List of questions

1. The chebyshev-I filter is equi-ripple in pass band and monotonic in the stop band.
a) True
b) False
2. The sum of number of maxima and minima in the pass band equals the order of the filter
a) True
b) False
3. What is the number of minima's present in the pass band of magnitude frequency response of a low pass chebyshev-I filter of order?
a) 1 b) 2 c) 3 d) 4
4. The type of filter which passes all frequencies within a band between a lower and an upper critical frequency and rejects all others outside this band
a) low-pass filter b) high-pass filter
c) band pass Filter d) Band stop Filter
5. Which of the following type of filters has maximum flat response?
a) Bessel
b) Butterworth
c) Chebyshev
d) all of the above
6. Parallel form of realisation is done in
a) High speed filtering applications
b) Low speed filtering applications
c) Both a and b
d) None of the above
7. The cascade realisation of IIR systems involves
a) The transfer function broken into product of transfer functions
b) The transfer function divided into addition of transfer functions
c) Factoring the numerator and denominator polynomials
d) Derivatives of the transfer functions
8. The two techniques used to transform analog filter to digital filter are
a) Butterworth
b) Chebyshev
c) Bilinear and impulse invariant
d) fourier series
e)

9. The impulse invariant mapping is
- a) many to one
 - b) one to one
 - c) one to many
 - d) none of the above
10. Bilinear mapping is
- a) many to one
 - b) one to one
 - c) one to many
 - d) none of the above
11. The zeros of the butterworth filter exist
- a) left of the s-plane
 - b) Origin
 - c) Infinity
 - d) Right of the S-plane
12. The butterworth and chebyshev transfer function ,when N is odd,the nature of the poles are
- a) complex and exists as conjugate pair
 - b) complex and not conjugate pair
 - c) one pole is complex and other poles are real
 - d) one pole is real and other poles are complex
13. The relation between analog and digital frequency is non linear in case of
- a) Impulse invariant transformation
 - b) Bilinear transformation
 - c) Frequency sampling
 - d) All of above



Signature of Faculty Member



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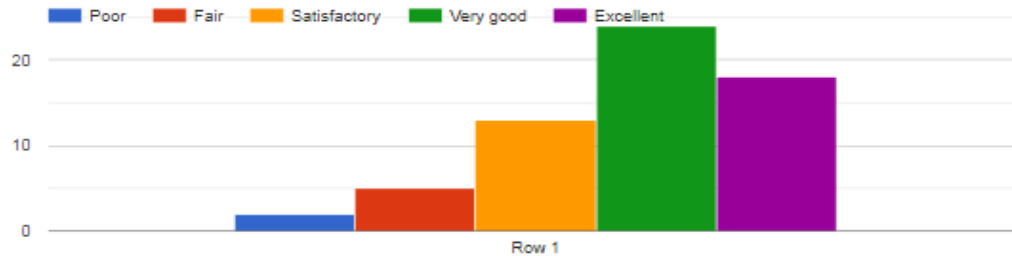
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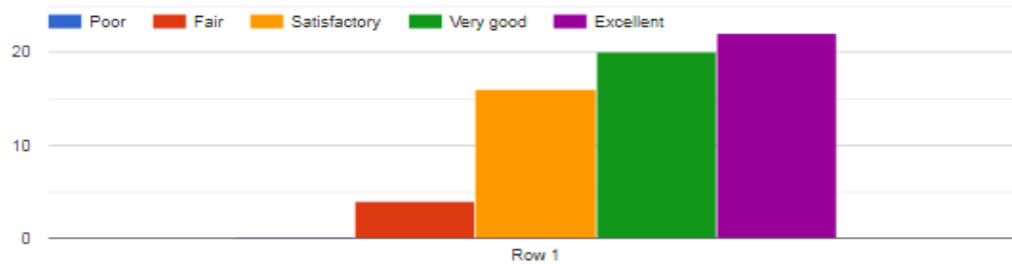


Summary of Students Feedback on Flipped Classroom Activity-Quiz

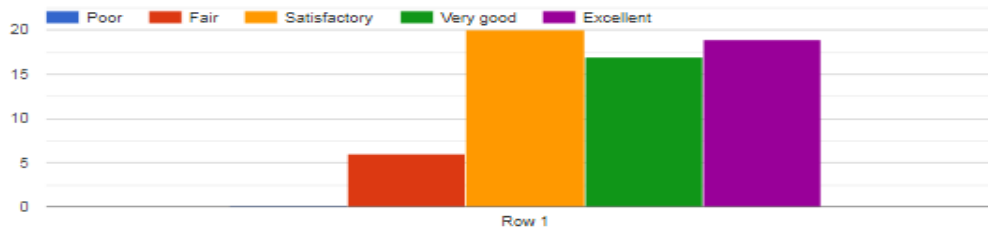
1. Presentation of the module



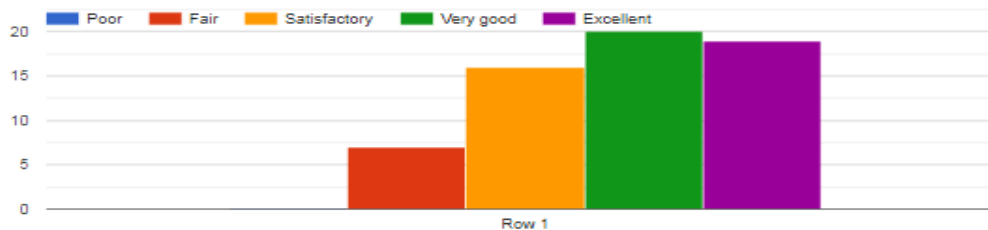
2. Flipped Classroom has improved my learning



3. Flipped classroom is engaging me more than traditional classroom instruction



4. Resource Person was able to make clear presentation and provide Instructions



Staff Incharge

HoD



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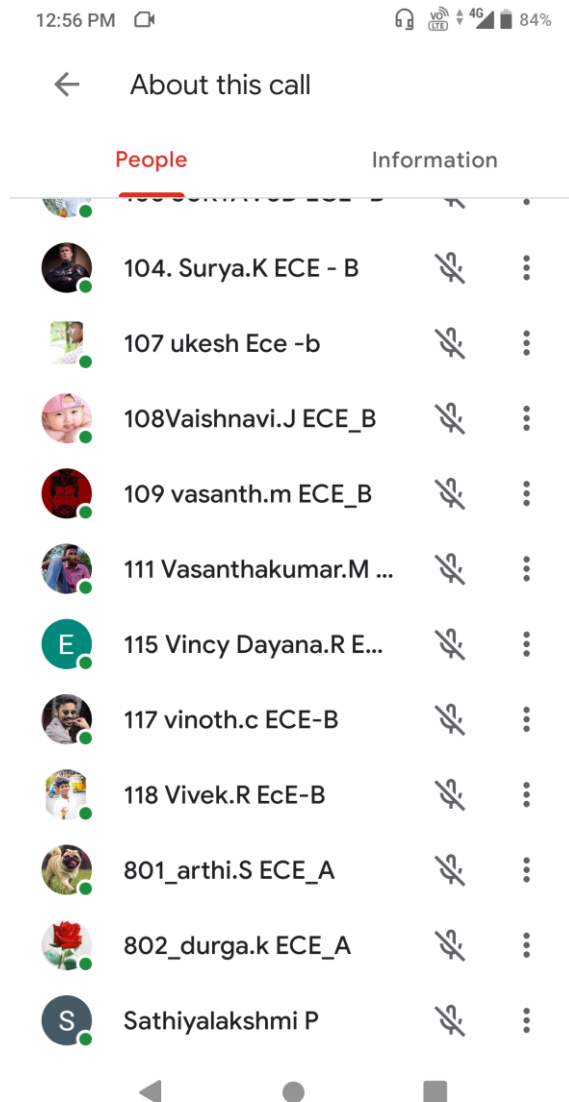
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Flipped Classroom Activity -Quiz –IIR FILTERS



Snapshot of Feedback session-Instructor summary at the end of the activity

Staff Incharge

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