

D.N.R COLLEGE OF ENGINEERING & TECHNOLOGY
Department of Electronics and Communication Engineering
Academic Year: 2019- 2020 (ODD Semester)
Innovative Teaching Method

B-Tech, Semester& Branch: II/ I Semester ECE

Title: Signals and Systems

Name of the Faculty member(s): K.P.Mani

Name of the Topic: Differential Equation- Laplace transforms in Analysis of CT Systems - Total Response

Name of the Innovative Practice: Round Table

Date& Duration: 10.07.2019&40 Minutes

Justification:

Round Table activity is a method of round table discussion for solving problems which is used to engage students in ways that helps them integrate new and interesting content knowledge with prior knowledge through a structured round table format. I have chosen this topic Differential Equation- Laplace transforms in Analysis of CT Systems - Total Response for conducting this activity because the natural response and forced response were already taught to the students. So while finding the total response by round table discussion it enables them to solve the problems easily and effectively.

Details of the Implementation:

- ❖ The students were asked to turn from their position of seating in such a way that they have to sit in groups (round table).
- ❖ Then each group was assigned a problem to solve
- ❖ The students referred the solved problems of natural response and forced response to find the total response
- ❖ They discussed with their group members to solve the problem
- ❖ The doubts were also clarified during the activity

REFERENCES

1. Signals & Systems - Simon Haykin and Van Veen, Wiley, 2nd Edition.
2. Principles of Linear Systems and Signals – BP Lathi, Oxford University Press, 2015
3. Signals and Systems – K Raja Rajeswari, B VisweswaraRao, PHI, 2009
4. Fundamentals of Signals and Systems- Michel J. Robert, MGH International Edition, 2008.
5. Signals and Systems – T K Rawat , Oxford University press, 2011

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B-Tech, Semester& Branch: II/ II Semester ECE

Title: Analog Communications

Name of the Faculty member(s): K.P.Mani

Name of the Topic: Need for modulation

Name of the Innovative Practice: Role Play

Date& Duration: 06.01.2020&15 Minutes

Description of Role Play Activity:

Role play is a technique that allows students to explore realistic situations by interacting with other people in a managed way in order to develop experience and trial different strategies in a supported environment. It is widely agreed that learning takes place when activities are engaging and memorable.

Goals (Learning Outcomes):

The students will be able to acquire knowledge about the need for modulation.

Use of appropriate methods:

Justification for choosing the topic using role plays activity:

This activity helps to develop the way of thinking of the students and they will be able to visualize the nature of the modulating signal, carrier signal and the process of modulation. As an electronics and communication engineering student modulation is an important concept and they should know about it clearly. So I had chosen this topic for conducting role play activity.

Effective presentation

Details of the Implementation:

First I asked the students to discuss among them about the concept of modulation

Then they were asked to come to the stage as group

Each group consisted of 4 students

Assessment of Effectiveness/Success of the Activity:

After conducting this activity, the students got a clear idea about the modulation process and the need for modulation. The effectiveness of the activity was felt while asking questions in the classroom and expecting the same in the Internal Assessment Test also.

Reflective Critique:

Benefits of conducting this activity:

Since this activity was conducted for groups, it improves their collaborative learning. The concept of modulation reached all the students as it is presented visually.

Challenges:

Initially the students got hesitated to come to the dias and present. Then I encouraged them to come forward. So it took around 5 minutes to make the students to come forward and present.

REFERENCES:

1. Principles of Communication Systems - Simon Haykin, John Wiley, 2nd Ed.,.
2. Electronics & Communication System – George Kennedy and Bernard Davis, TMH 2004.
3. Communication Systems– R.P. Singh, SP Sapre, Second Edition TMH, 2007.
4. Fundamentals of Communication Systems - John G. Proakis, Masond, Salehi PEA, 2006.
5. Electronic Communication systems – Tomasi, Pearson.

