



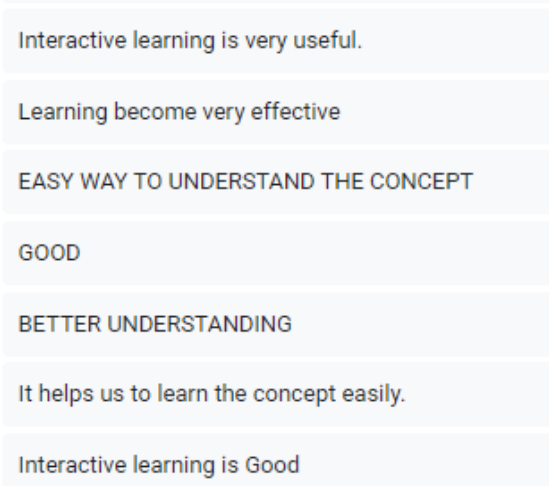
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACTIVITY BASED LEARNING

Course Code & Course Title :EC8453/LINEAR INTEGRATED CIRCUITS
Year/Sem/Branch :II/IV/ECE
Name of Faculty :A.HEMA MALINI
Designation :AP
Unit Title :Waveform Generators and Special Function Ics
Topic : 555 timer and its applications
LO : At the end of the course student should be able to design a Monostable and Astable multivibrator using 555 timer for real time applications.
Bloom’s Taxonomy Level :Analyze

S.No.	Title	Description
1	Concept	<p>The 555 timer is used in various timer, pulse generations and oscillations applications. The Astable and Monostable Multivibrator is used as the basic building blocks for various waveform generating circuits and can be applied for the real time applications.</p> <p>The working operation of Monostable and Astable Multivibrator must be clearly understand and the students should able to apply the concept for designing real time application.</p>
2	Challenges Faced	<ul style="list-style-type: none"> • It becomes very difficult for all the students to be attentive and interactive in class. • In conventional teaching only few students could able to understand the concept clearly. • It is not possible for all students to listen and show interest in learning the subject.
3	Name of the Activity	<p>FLIPPED CLASS ACTIVITY</p> <p>The flipped class mode is consider to be the one of the most powerful strategy used, which helps the students to get in-depth knowledge on subject, it provokes the critical thinking capability and increases the learners confidence as a individual or as a team.</p>

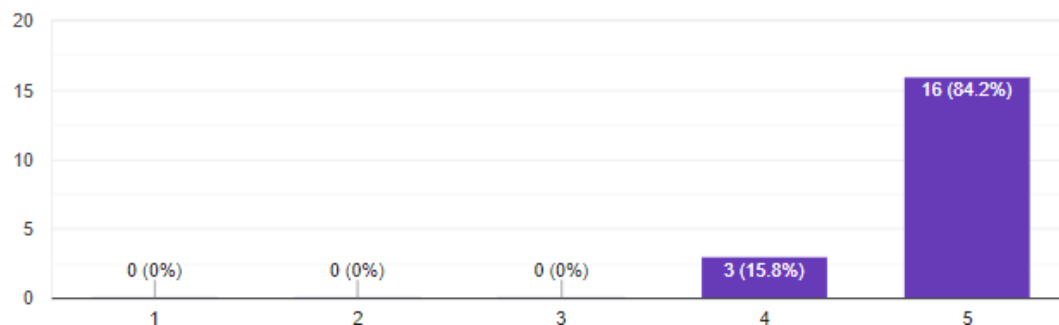
4	Description of the Activity	<p>Planned to share the Video lecture as a learning material to students in Moodle.</p> <p>1. The learning material for this particular topic was recorded lecture from NPTEL video. https://www.youtube.com/watch?v=9RZfFOnPtqg</p> <p>After sharing the learning material in a proper platform the following guidelines were given to students to make the best use of learning material.</p> <p>1. The learning objective, the need of the concept and where it can be applied has been clearly explained.</p> <p>2. Mapping the content to the video source and explains which part of video segment has to be focused by the student.</p> <p>Students guideline video presentation https://youtu.be/m4WJ8G2irfc</p> <p>3. Based on the complexity of content, the study time has clearly mentioned to students (4-5 days).</p> <p>4. Sufficient time has given for average students.</p> <p>5. Quiz conducted in Moodle as out-of-class activity to make sure whether all students have gone through the learning materials.</p> <p>6. To make sure whether the students have understood the concept clearly, in-class activity was conducted in classroom.</p> <p>Create a team:</p> <p>Total students: 30</p> <p>Teams: 10 (3 members per team)</p> <p>Group: Heterogeneous team (mixed ability student)</p> <p>Activity timing: 30 Minutes</p> <ul style="list-style-type: none"> • The in-class activity is conducted with heterogeneous team by dividing the class into different groups (3 members per team). • Different groups have given with different problems and class has been monitored to make sure that all groups come with some solution. • Informed each group to share their answer with class and see whether there are different answers. • This is done by asking the students to do the team presentation which increases their confidence level. • After sharing is done, I gave the feedback on the correct solution and explains the role of 555 timer for various applications in real life.
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5	Feedback from Learners (Consolidated)	<p>The feedback collected from students in class room.</p> <ul style="list-style-type: none"> • It helps us to learn the concept easily. • Easy to understand • Interactive learning is very useful. • Team work helps us to improve the confidence level. • Learning become very effective. <p>Feedback through Google form</p> <p>What did you like most about today's session?</p> <p>14 responses</p>  <p>The screenshot shows a list of responses to the question 'What did you like most about today's session?'. The responses are: 'Interactive learning is very useful.', 'Learning become very effective', 'EASY WAY TO UNDERSTAND THE CONCEPT', 'GOOD', 'BETTER UNDERSTANDING', 'It helps us to learn the concept easily.', and 'Interactive learning is Good'.</p>
6	Feedback of the Faculty about this activity	<p>Conventional Teaching Experience: It becomes very difficult for me to address all the students and to make them to be attentive and interactive in class. I have noticed only few students were listening and showing interest in learning the subject. At the end of the class I use to summarize the topics covered by asking some simple questions to the students. But I could see only few students were answering. This shows that all students in the class were not actively involved in studies.</p> <p>Activity Based Teaching: Out-of-class Activity(Quiz):</p> <p>I have noticed that conducting this type of learning activity really motivates students to gain subject knowledge and helps them to focus on the subject.</p> <p>In-Class Activity: Dividing the class into different groups with different ability students (Heterogeneous Team) helped the low performing students to clarify their doubt and learn from the peers which really motivated the students to develop their confidence level.</p> <p>This type activity helped to provoke the students thinking skills to relate the subject with real time application.</p>

Analysis Report Chart :

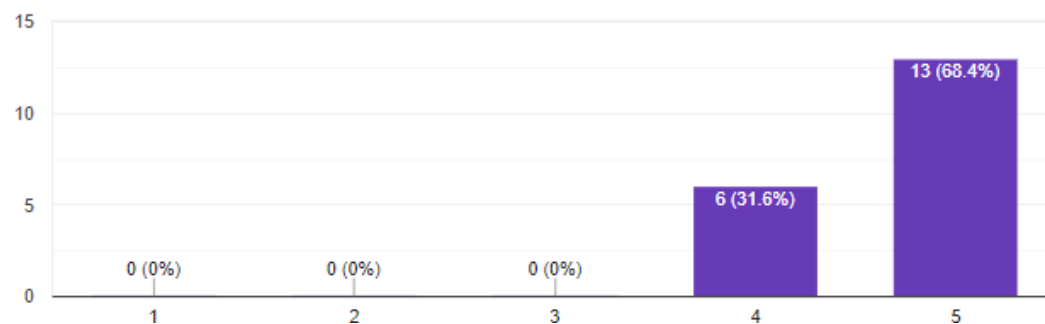
Relevance of the activity to the concept

19 responses



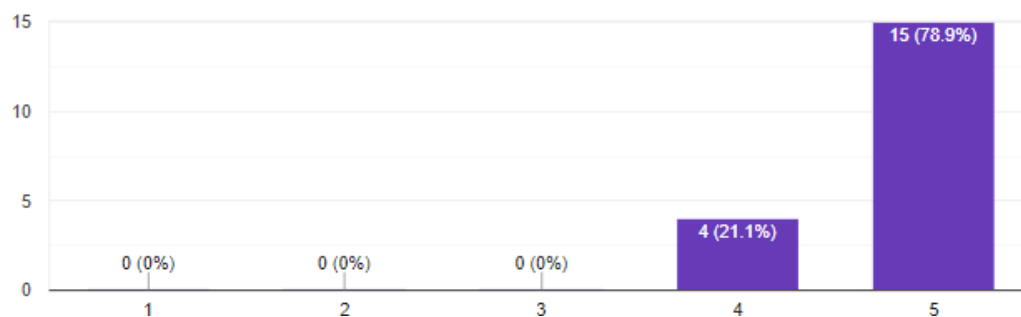
How far this activity is understandable when compared to chalk & board method of teaching

19 responses



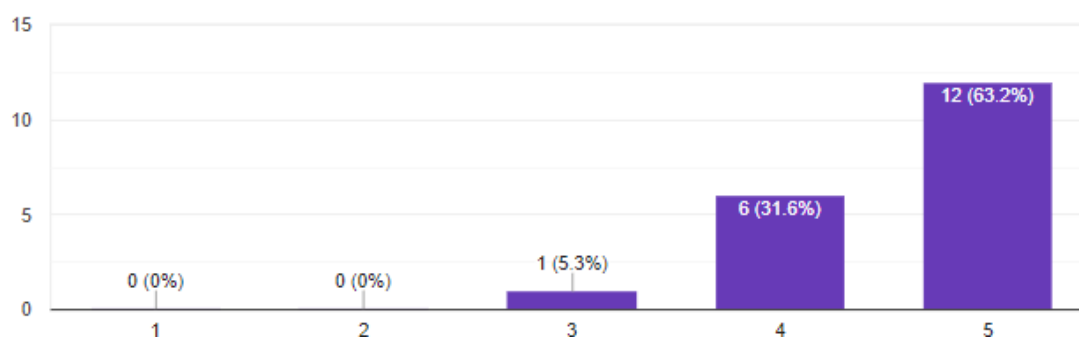
Faculty was able to explain the concept very easily through this activity.

19 responses



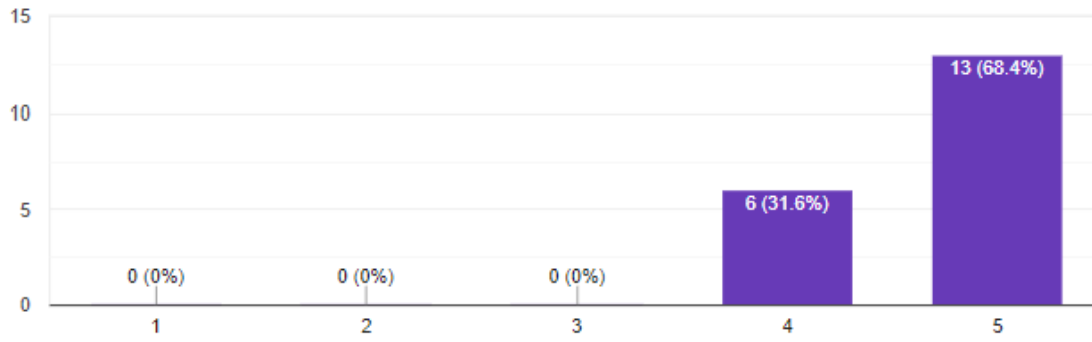
I was able to easily correlate the activity and the concept

19 responses



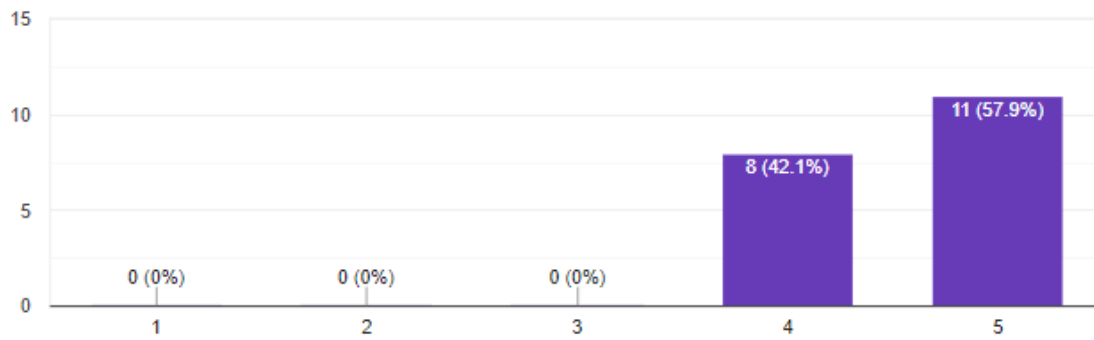
The team work was interesting

19 responses



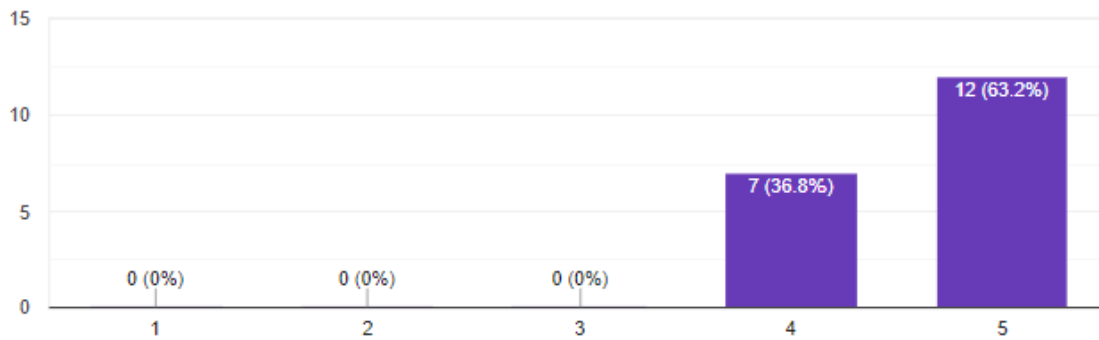
This activity helped me to have better understanding

19 responses



Overall, I would rate this activity as

19 responses



Signature of the Course Faculty

Signature of HOD