UNIVERSAL ENGINEERING COLLEGE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACTIVITY BASED LEARNING

EET301: POWER SYSTEMS I

Semester: V **Programme period: 2021-2025**
Faculty : Ms. Teresa Babu **Academic Year : 2023-2024**

Activity title : Flipped Classroom
Location : A201, A Block
Date : 16/10/2023

Participants : S5 EEE

Purpose of the Activity

The purpose of adopting the flipped classroom model for EET 301 Power systems I was to create an interactive and engaging learning environment for the S3 EEE students. Traditional lecture-based methods often leave limited time for students to actively engage with the material. By shifting the delivery of core content outside of class time and using in-class sessions for active learning, the flipped classroom approach aimed to enhance student participation and improve conceptual understanding. This innovative approach also aimed to help students develop a deeper understanding of circuit analysis and network theorems, which are fundamental to electrical engineering

Activity Description

The flipped classroom model EET 301 Power systems I was designed to shift the focus of classroom time from traditional lectures to interactive, hands-on learning experiences. Students were encouraged to come prepared to class by reviewing key concepts in advance through reading materials provided before each session. During class, the focus was on engaging students actively through problem-solving exercises, group discussions, and practical applications of the concepts they had studied. The class sessions were structured to promote

learning, where students worked in small groups to tackle real-world circuit problems and network analysis scenarios.

Faculty, in this approach, played a more facilitative role, guiding the students through complex problems, encouraging peer learning, and providing immediate clarification on doubts. Students were also encouraged to experiment with the theoretical concepts through practical exercises, such as solving circuit problems on the board, discussing different methods of circuit analysis, and exploring real-world applications of network theorems. The classroom environment was dynamic, with interactive discussions, where students not only applied their knowledge but also learned from each other's insights and approaches. This method helped build critical thinking skills, as students were tasked with finding solutions and justifying their choices based on the concepts they had reviewed.

Conclusion

The flipped classroom model for EET 301 Power systems I proved to be a successful and innovative teaching method. It shifted the focus from passive learning to active engagement, with students being more involved in discussions, problem-solving, and applying theoretical concepts in real-time. The approach not only enhanced student participation but also allowed for immediate feedback and clarification, making learning more effective. Overall, the flipped

classroom model has shown significant benefits in improving student engagement and learning outcomes in the course.

Name and signature of faculty **Name and signature of HOD**