

**SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN :: BHIMVARAM**

**(AUTONOMOUS)**

**STUDENT SUCCESS CENTRE**

**REPORT**

**Activity name:** PEER LEARNING

**Dates:** October 2024 to January 2025

**Time:** 4.30 pm to 5:30 pm

The Student Success Centre conducted **Peer Learning Sessions on Electrical Circuit Analysis - I** for II year B.Tech students to enhance their subject knowledge and help them clear backlogs.

The sessions commenced on **September 23, 2024**, and have been running successfully in the **Electrical and Electronics Engineering (EEE) branch**, with an average of **15+ students per session**. A total of **29 sessions** have been conducted:

- **September:** 7 sessions
- **October:** 5 sessions
- **December:** 10 sessions
- **January:** 7 sessions

### **Objective and Impact**

The primary aim of these sessions was to **promote academic excellence, equality, and active engagement** among students. By fostering shared perspectives and peer-to-peer interaction, the initiative created a more **collaborative and supportive learning environment**.

### **Topics Covered**

The sessions covered essential concepts in Electrical Circuit Analysis,

#### **1. Introduction to Electrical Circuits**

- Basic concepts of passive elements (R, L, C)
- Network reduction techniques (series, parallel, series-parallel)

- Node and mesh analysis

## 2. Magnetic Circuits

- Concept of self and mutual inductance
- Dot convention, coefficient of coupling
- Composite magnetic circuits

## 3. Resonance and Locus Diagrams

- **Series Resonance:** Characteristics, Q-factor, selectivity, bandwidth, and half-power frequencies
- **Parallel Resonance:** Q-factor, selectivity, and bandwidth
- **Locus Diagrams:** RL, RC, and RLC circuits with variable R, L, and C

## 4. Network Theorems (DC & AC Excitations)

- Superposition theorem
- Thevenin's and Norton's theorems
- Maximum Power Transfer theorem
- Reciprocity theorem
- Millman's theorem

Many students improved their understanding of core concepts, and out of 19 students, 17 students successfully cleared their backlogs. A team of mentors actively monitored the sessions to ensure a structured and fair learning process. The sessions provided a **skill-building and engaging experience**, leading to increased enthusiasm and determination among students.

Mentors Details:

1)Name: K.Madhulakshmi

Register number:23B01A0221

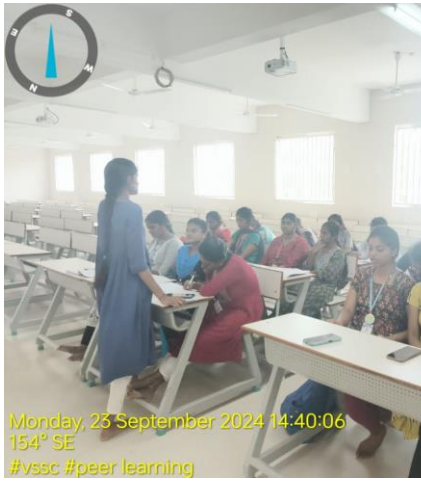
2)Name:Ch.Divya

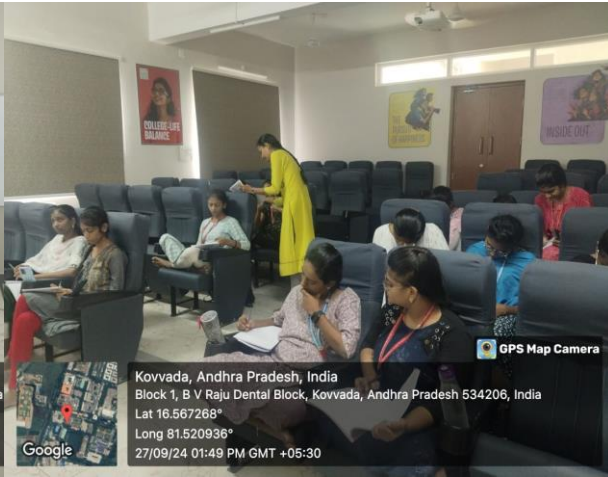
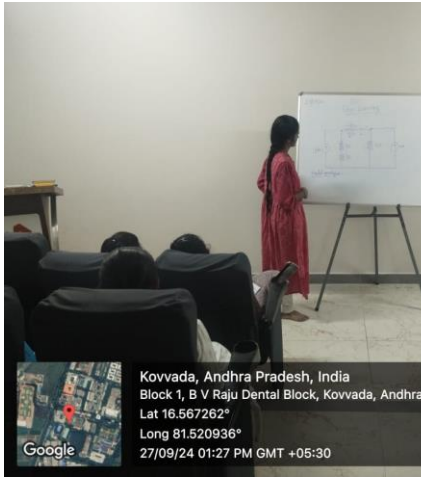
Register number:23B01A0208

3)Name: P.Srilekha

Register number:23B01A0239

**Glimpses of the sessions:**







Bhimavaram, Andhra Pradesh, India  
Hg9c+7r3, Near Sri Vishnu College, Bhimavaram, Kovvada, Andhra Pradesh 534202, India  
Lat 16.568191° Long 81.522216°  
24/12/24 04:34 PM GMT +05:30

GPS Map Camera



Bhimavaram, Andhra Pradesh, India  
Hg9c+7r3, Near Sri Vishnu College, Bhimavaram, Kovvada, Andhra Pradesh 534202, India  
Lat 16.568194° Long 81.522207°  
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