

Velammal College of Engineering and Technology, Madurai
Department of Mathematics
Innovative Teaching Methodology

Name of the course: Transforms Techniques and its Applications

Topic: Application of Laplace Transform in Electrical Circuits Problems

Course Incharge: Dr.A.P. Pushpalatha

Innovative Method: Seminar



A **Student Mathematics Seminar** is a focused platform for students to explore, research, and present mathematical topics, often emphasizing their application within various engineering disciplines.

These seminars are designed to bridge the gap between abstract mathematical concepts and their practical use in engineering fields.

- Students can enhance **research skills, public speaking**, and the ability to **communicate complex technical ideas** clearly—all vital for an engineering career.
- It moves beyond theoretical problem-solving to show *how* mathematics is the fundamental tool for modeling and solving engineering challenges.
- When students take the seminar themselves, it fosters a strong sense of **ownership, independence, and creative problem-solving**.
- It develops the peer coaching

This seminar session was conducted under the guidelines **Dr. A.P. Pushpalatha** for II year EEE students in their classroom.

Name of the course: Matrices and Calculus

Topic: Applications of Differential Calculus

Course Incharge: Dr. V. Dhanasekaran

Innovative Method: Tutorial



A Mathematics tutorial class is a **small-group, interactive session** that serves as a crucial **supplement to the main lecture**, focusing primarily on **problem-solving, application, and individualized reinforcement** of mathematical concepts.

The Mathematics Tutorial Class is the essential bridge between theoretical lecture material and practical problem application, providing students with a dedicated, low-stakes environment to deepen conceptual understanding, practice complex calculations, and develop the independent, critical-thinking skills necessary to successfully apply mathematics in their core engineering disciplines.

In this tutorial session, finding maxima and minima of functions of two variables problems solved by the students with the help of Course in-charge **Dr. V. Dhanasekaran** accompanied with the maths faculty **Dr. M. Sornavalli**. It helps the students to solve the problems themselves and get clarification about their doubts.