

Velammal College of Engineering & Technology, Madurai -625009 (Autonomous)

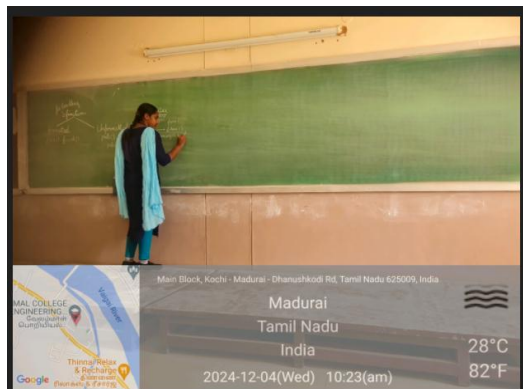
DEPARTMENT OF ELECTRONICS ENGINEERING (VLSI DESIGN AND TECHNOLOGY)

Name of the course: Problem Solving and C Programming

Topic: File Handling Operations - Sequential Accessing

Course Incharge: Mrs. N. Vishnu Devi, AP

Innovative Method: Active Learning Method



The Active Learning Method is implemented to ensure students gain practical mastery over sequential file operations in C programming. Instead of relying on passive explanation of file functions, students are actively involved in designing and executing programs that perform real-time file manipulation.

Students are organized into small groups and assigned structured tasks such as creating a file, writing records, reading data sequentially, appending new entries, and handling file errors. Each group must analyze the problem, choose appropriate **file modes** (**r**, **w**, **a**, **r+**), implement the logic, and demonstrate their output. Students are required to justify their choice of functions like **fopen()**, **fprintf()**, **fscanf()**, and **fclose()** while explaining how data flows within the file.

Group discussion, live debugging, and peer evaluation are integrated into the session to expose conceptual weaknesses such as incorrect pointer positioning and improper file access modes. This method ensures students do not treat file handling as memorized syntax but understand it as a logical process involving data persistence and structured storage.