



**THENI KAMMAVAR SANGAM COLLEGE OF TECHNOLOGY
KODUVILARPATTI, THENI
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

EE8711- POWER SYSTEM SIMULATION LABORATORY

OBJECTIVES:

- To provide better understanding of power system analysis through digital simulation.

LIST OF EXPERIMENTS

- 1 Computation of Transmission Line Parameters
- 2 Formation of Bus Admittance and Impedance Matrices and Solution of Networks
- 3 Power Flow Analysis using Gauss-Seidel Method
- 4 Power Flow Analysis using Newton Raphson Method
- 5 Symmetric and unsymmetrical fault analysis
- 6 Transient stability analysis of SMIB System
- 7 Economic Dispatch in Power Systems
- 8 Load – Frequency Dynamics of Single- Area and Two-Area Power Systems
- 9 State estimation: Weighted least square estimation
- 10 Electromagnetic Transients in Power Systems : Transmission Line Energization

OUTCOMES:

- Ability to understand power system planning and operational studies.
- Ability to acquire knowledge on Formation of Bus Admittance and Impedance Matrices and Solution of Networks.
- Ability to analyze the power flow using GS and NR method
- Ability to find Symmetric and Unsymmetrical fault
- Ability to understand the economic dispatch.
- Ability to analyze the electromagnetic transients.