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| **Sl.No.** | **Syllabus** | **Curriculum** | **Deployment Strategy and Tool** | **Cross-cutting issues integrated** | **PO, PSO and CO** |
| 1. | Network Theory | * Describe basic network concepts emphasizing source transformation, source shifting, mesh and nodal techniques to solve for resistance/ impedance, voltage, current and power. * Explain network Thevenin’s, Millman’s, Superposition, Maximum Power transfer and Norton’s Theorems and apply them in solving the problems related to Electrical Circuits. * Explain the behavior of networks subjected to transient conditions. * Use applications of Laplace transforms to network problems. * Study two port network parameters like Z, Y, T and h and their inter-relationships and applications. * Study of RLC series and parallel tuned circuit. | 1. Chalk and Talk method 2. PPT | * Environment and sustainability. | * PO1,PO2,PO3,PO5 |
| * PSO1,PSO2 |
| CO1: Determine currents and voltages using concepts of source transformation/ source shifting/ mesh/ nodal analysis and reduce given network using star-delta transformation/ source transformation/ source shifting.  CO2: Solve network problems by applying Superposition/ Reciprocity/ Thevenin‘s/ Norton‘s/ Maximum Power Transfer/ Millman‘s Network Theorems and electrical laws to reduce circuit complexities and to arrive at feasible solutions.  CO3: Calculate current and voltages for the given circuit under transient conditions and apply Laplace transform to solve the given network.  CO4: Evaluate for RLC elements/ frequency response related parameters like resonant frequency, quality factor, half power frequencies, voltage across inductor and capacitor, current through the RLC elements, in resonant circuits  CO5: Solve the given network using specified two port network parameter like Z or Y or T or h. |