

<b>Course Number and Name</b>												
BEE7L1 & Power System Using PC Laboratory												
<b>Credits and Contact Hours</b>												
2 & 45												
<b>Course Coordinator's Name</b>												
Dr. V. Jayalakshmi												
<b>Text Books and References</b>												
Lab Manual												
<b>Course Description</b>												
To provide better understanding of power system analysis through MATLAB simulation												
<b>Prerequisites</b>						<b>Co-requisites</b>						
Nil						Power System Analysis						
required, elective, or selected elective (as per Table 5-1)												
Required												
<b>Course Outcomes (COs)</b>												
CO1: Acquire skills of using computer packages MATLAB coding in power system studies. CO2: Model and simulate power system network with stable and unstable situation. CO3: Analyse the performance of Power System Network using MATLAB tools. CO4: To perform the dynamic analysis of power system. CO5: To have hands on experience on various system studies and different techniques used for system planning.												
<b>Student Outcomes (SOs) from Criterion 3 covered by this Course</b>												
COs/SOs	a	b	c	d	e	f	g	h	i	j	k	l
CO1	M	M		H	H				M			M
CO2	M	H		H	H				M			M
CO3	M	H		H	H				M			M
CO4	H	H		H	H				M			M
CO5	M	M		H	H				H			H
<b>List of Topics Covered</b>												
<b>LIST OF EXPERIMENTS</b>												
<ol style="list-style-type: none"> <li>1. Per Unit Computation</li> <li>2. Formation of Y Bus Matrix by Inspection Method</li> <li>3. Formation of Z Bus Matrix</li> <li>4. Gauss Seidal Method</li> <li>5. Load Flow Solution using Fast Decouple Method</li> <li>6. Load Flow Solution by Newton Raphson Method</li> <li>7. Short Circuit Analysis</li> <li>8. Economic dispatch using MATLAB Software</li> <li>9. Swing equation</li> <li>10. Load frequency control</li> <li>11. Study of Programmable Logic Controller</li> </ol>												