

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR  
ANANTHAPURAMU (A.P.)**

**COURSE STRUCTURE AND SYLLABUS**

(For Affiliated Engineering Colleges w.e.f. 2017-18 Admitted Batch)

**M.TECH - ELECTRICAL POWER ENGINEERING,  
ELECTRICAL POWER SYSTEMS and POWER SYSTEM**

**M.Tech I Semester**

S.No	Subject Code	Subject	L	T	P	C
1.	17D49101	Advanced Power System Protection	4	-	-	4
2.	17D49102	Machine Modeling and Analysis	4	-	-	4
3.	17D49103	Optimization & Heuristic Search Techniques	4	-	-	4
4.	17D49104	Restructured Power Systems	4	-		4
5.	17D49105 17D49106 17D49107	<b>Elective-I</b> 1. Modern Control Engineering & Principles of Optimal Control 2. FACTS Controllers 3. Solar Energy Conversion Systems	4	-	-	4
6.	17D49108 17D49109 17D49110	<b>Elective-II</b> 1. Power System Wide Area Monitoring & Control 2. Energy Auditing and Management 3. State Estimation Techniques	4	-	-	4
7.	17D49111	Machines & Power Systems Lab	-	-	4	2
<b>TOTAL</b>			<b>22</b>	<b>-</b>	<b>04</b>	<b>26</b>

**M.Tech II Semester**

S.No	Subject Code	Subject	L	T	P	C
1.	17D49201	Reliability Engineering and Application to Power Systems	4	-	-	4
2.	17D49202	Power Quality	4	-	-	4
3.	17D49203	Smart Grid Technologies	4	-	-	4
4.	17D49204	Power System Stability & Control	4	-		4
5.	17D49205 17D49206 17D49207	<b>Elective-III</b> 1. Reactive Power Compensation & Management 2. Power System Optimization 3. HVDC & EHVAC Transmission Systems	4	-	-	4
6.	17D49208 17D49209 17D49210	<b>Elective-IV</b> 1. Distributed Generation & Micro grid Control 2. Wind Energy Conversion Systems 3. Intelligent Control Techniques	4	-	-	4
7.	17D49211	Power System Simulation Lab	-	-	4	2
<b>TOTAL</b>			<b>22</b>	<b>-</b>	<b>04</b>	<b>26</b>