

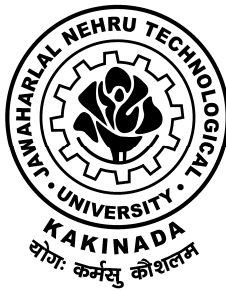
**ACADEMIC REGULATIONS
COURSE STRUCTURE
AND
DETAILED SYLLABUS**

**ELECTRICAL AND
ELECTRONICS
ENGINEERING**

For

B.Tech., FOUR YEAR DEGREE COURSE

(Applicable for the batches admitted from 2013-14)



**JAWAHARLAL NEHRU TECHNOLOGICAL
UNIVERSITY KAKINADA
KAKINADA – 533003, ANDHRA PRADESH, INDIA.**

2	Microprocessors & Microcontrollers	3+1	--	3
3	Utilization of Electrical Energy	3+1	--	3
4	Power System Analysis	3+1	--	3
5	Power Semiconductor Drives	3+1	--	3
6	Management Science	3+1	--	3
7	Power Electronics Lab	--	3	2
8	Electrical Measurements Lab	--	3	2
Total Credits				22

IV Year – I SEMESTER

S. No.	Subject	T	P	Credits
1	Renewable Energy Sources and Systems	3+1	-	3
2	HVAC & DC Transmission	3+1	-	3
3	Power System Operation & Control	3+1	-	3
4	Open Elective	3+1	-	3
5	Elective – I	3+1	-	3
6	Microprocessors & Microcontrollers Lab	-	3	2
7	Electrical Simulation Lab	-	3	2
8	Power systems lab		3	2
Total Credits				21

IV Year – II SEMESTER

S. No.	Subject	T	P	Credits
1	Digital Control Systems	3+1	-	3
2	Elective – II	3+1	-	3
3	Elective – III	3+1	-	3
4	Elective – IV	3+1	-	3
5	Project	-	-	9
Total Credits				21

Open Elective:

1. Energy Audit, Conservation and Management
2. Instrumentation
3. Non Conventional Sources of Energy
4. Optimization Techniques

Elective – I:

1. VLSI Design
2. Electrical Distribution Systems
3. Optimization Techniques

Elective – II:

1. Advanced Control Systems
2. Extra High Voltage Transmission
3. Special Electrical Machines

Elective – III:

1. Electric Power Quality
2. Digital Signal Processing
3. FACTS: Flexible Alternating Current Transmission Systems.

Elective-IV:

1. OOPS Through Java
2. UNIX and Shell Programming
3. AI Techniques
4. Power System Reforms
5. Systems Engineering