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## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by Andhra Pradesh Act No.30 of 2008)

Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

### B.TECH. (ELECTRICAL & ELECTRONICS ENGINEERING)

#### I YEAR

Code	Subject	L	T/P/D	Credits
	English	2	-	4
	Mathematics – I	3	1	6
	Mathematical Methods	3	-	6
	Engineering Physics	3	-	6
	Engineering Chemistry	3	-	6
	Computer Programming	3	-	6
	Engineering Drawing	2	3	6
	Computer Programming Lab	-	3	4
	Engineering Physics & Engineering Chemistry Lab	-	3	4
	English Language Communication Skills Lab	-	3	4
	Engineering Workshop/IT Workshop	-	3	4
	<b>Total</b>	<b>19</b>	<b>16</b>	<b>56</b>

#### II YEAR I SEMESTER

Code	Subject	L	T/P/D	Credits
	Mathematics – III	4	-	4
	Fluid Mechanics and Hydraulic Machinery	4	-	4
	Electronic Devices & Circuits	4	-	4
	Electrical Circuits	4	-	4
	Electromagnetic fields	4	-	4
	Electrical Machines-I	4	-	4
	Fluid Mechanics and Hydraulic Machinery Lab	-	3	2
	Electronic devices & Circuit labs	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

#### II YEAR II SEMESTER

Code	Subject	L	T/P/D	Credits
	Managerial Economics & Financial Analysis	4	-	4
	Power Systems-I	4	-	4
	Electronic Circuits	4	-	4
	Switching Theory and Logic Design	4	-	4
	Network Theory	4	-	4
	Electrical Machines-II	4	-	4
	Electrical Machines lab -I	-	3	2
	Electrical Circuits and Simulation Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

#### III YEAR I SEMESTER

Code	Subject	L	T/P/D	Credits
	IC Applications	4	-	4
	Management Science	4	-	4
	Power Systems-II	4	-	4
	Control Systems	4	-	4
	Power Electronics	4	-	4
	Electrical Machines-III	4	-	4
	Electrical Machines lab –II	-	3	2
	Control Systems and Simulation Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

## III YEAR II SEMESTER

Code	Subject	L	T/P/D	Credits
	Electrical and Electronics Instrumentation	4	-	4
	Static Drives	4	-	4
	Computer Methods in Power Systems	4	-	4
	Microprocessors and Interfacing Devices	4	-	4
	Environmental Studies	4	-	4
	<b>Open Elective</b> Disaster Management Intellectual Property Rights Human Values and Professional Ethics	4	-	4
	Advanced Communication Skills Lab	-	3	2
	Power Electronics and Simulation Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

## IV YEAR I SEMESTER

Code	Subject	L	T/P/D	Credits
	Switch Gear and Protection	4	-	4
	Utilization of Electrical Energy	4	-	4
	Digital Signal Processing	4	-	4
	Power System Operation and Control	4	-	4
	<b>Elective-I</b> High Voltage Engineering VLSI Design Digital Control Systems <b>Data Structures</b>	4	-	4
	<b>Elective-II</b> Optimization Techniques Electrical Distribution Systems Electrical Estimation and Costing	4	-	4
	Microprocessors and Interfacing Devices Lab	-	3	2
	Electrical Measurements Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

## IV YEAR II SEMESTER

Code	Subject	L	P	Credits
	Fundamentals of HVDC and FACTS Devices	4	-	4
	<b>Elective-III</b> Neural Networks and Fuzzy Logic Renewable Energy Sources Principles of Reliability Engineering	4	-	4
	<b>Elective-IV</b> Advanced Control Systems EHV AC Transmission Introduction to Nanotechnology	4	-	4
	Industry Oriented Mini Project	0	0	2
	Seminar	0	6	2
	Project Work	0	15	10
	Comprehensive Viva-Voce	0	0	2
	<b>Total</b>	<b>12</b>	<b>21</b>	<b>28</b>

**Note:**All End Examinations (Theory and Practical) are of three hours duration.

**T-Tutorial      L – Theory      P – Practical/Drawing      C – Credits**