

# **SRI VENKATESWARA COLLEGE OF ENGINEERING**

**Karakambadi Road Tirupati-517 507**



**Department of Electrical & Electronics Engineering**

## **Course Structure for I, II, III & IV Years (JNTUA- R15 Regulation)**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR***(Established by Govt. of A.P., Act. No. 30 of 2008)***ANANTHAPURAMU – 515 002 (A.P.) INDIA.****Course Structure for B.Tech-R15 Regulations****ELECTRICAL & ELECTRONICS ENGINEERING****I B.Tech. - I Semester**

S.No	Course code	Subject	L	T	P	Drg	C
1.	15A52101	Functional English	3	1	-	-	3
2.	15A54101	Mathematics – I	3	1	-	-	3
3.	15A05101	Computer Programming	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	-	6	3
6.	15A52102	English Language Communication Skills Lab	-	-	4	-	2
7.	15A56102	Engineering Physics Lab	-	-	4	-	2
8.	15A05102	Computer Programming Lab	-	-	4	-	2
Total			12	4	12	6	21

**I-II Semester**

S.No	Course code	Subject	L	T	P	C
1.	15A54201	Mathematics – II	3	1	-	3
2.	15A52201	English for Professional Communication	3	1	-	3
3.	15A51101	Engineering Chemistry	3	1	-	3
4.	15A01101	Environmental Studies	3	1	-	3
5.	15A02201	Electrical Circuits – I	3	1	-	3
6.	15A51102	Engineering Chemistry Lab	-	-	4	2
7.	15A02202	Electrical Circuits Lab	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	4	2
Total			15	5	12	21

\* L - Lecture hours

\*T - Tutorial hours

\*P - Practical hours

\*Drg - Drawing

\*C - Credits

**II B. Tech (EEE) – I Sem**

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics –III	3	1	-	3
2	15A02301	Electrical Circuits – II	3	1	-	3
3	15A02302	Electrical Machines – I	3	1	-	3
4	15A02303	Control Systems Engineering	3	1	-	3
5	15A04301	Electronic Devices & Circuits	3	1	-	3
6	15A05201	Data Structures	3	1	-	3
7	15A02305	Electric Circuits Simulation Laboratory	-	-	4	2
8	15A04305	Electronic Devices & Circuits Laboratory	-	-	4	2
Total			18	6	8	22

**II B. Tech (EEE) – II Sem**

S. No	Course Code	Subject	L	T	P	C
1	15A54402	Mathematics – IV	3	1	-	3
2	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
3	15A02401	Electrical Machines – II	3	1	-	3
4	15A02402	Electrical Power Generating Systems	3	1	-	3
5	15A02403	Electromagnetic Fields	3	1	-	3
6	15A04409	Analog Electronic Circuits	3	1	-	3
7	15A02404	Electrical Machines Laboratory – I	-	-	4	2
8	15A02405	Control Systems & Simulation Laboratory	-	-	4	2
9	15A02406	Comprehensive Online Examination – I	-	-	-	1
Total			18	6	8	23

**B.Tech III-I Semester (EEE)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A02501	Electrical Measurements	3	1	-	3
2.	15A04509	Linear & Digital IC Applications	3	1	-	3
3.	15A02502	Electrical Power Transmission Systems	3	1	-	3
4.	15A02503	Power Electronics	3	1	-	3
5.	15A02504	Electrical Machines – III	3	1	-	3
6.	15A04510 15A02505	<b>MOOCS -I</b> Digital Circuits and Systems Networks Signals and Systems	3	1	-	3
7.	15A02506	Electrical Machines Laboratory – II	-	-	4	2
8.	15A02507	Electrical Measurements Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
<b>Total</b>			<b>20</b>	<b>6</b>	<b>10</b>	<b>22</b>

**B.Tech III-II Semester (EEE)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A02601	Power Semiconductor Drives	3	1	-	3
3.	15A02602	Power System Protection	3	1	-	3
4.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
5.	15A02603	Power System Analysis	3	1	-	3
6.	15A02604 15A02605 15A02606 15A01608	<b>CBCC -I</b> 1) Neural Networks & Fuzzy Logic 2) Programmable Logic Controller & Its Applications 3) Optimization Techniques 4) Intellectual Property Rights	3	1	-	3
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A02607	Power Electronics & Simulation Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A02608	Comprehensive Online Examination - II	-	-	-	1
<b>Total</b>			<b>18</b>	<b>6</b>	<b>12</b>	<b>23</b>

**B.Tech IV-I Semester (EEE)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A02701	Electrical Distribution Systems	3	1	-	3
2.	15A04603	Digital Signal Processing	3	1	-	3
3.	15A02702	Power System Operation and Control	3	1	-	3
4.	15A02703	Utilization of Electrical Energy	3	1	-	3
5.	15A02704 15A02705 15A02706	<b>CBCC-II</b> a) Modern Control Theory b) Switched Mode Power Converters c) Energy Auditing & Demand Side Management	3	1	-	3
6.	15A02707 15A02708 15A02709	<b>CBCC-III</b> a) Smart Grid b) Flexible AC Transmission Systems c) Power Quality	3	1	-	3
7.	15A04608	Digital Signal Processing Laboratory	-	-	4	2
8.	15A02710	Power Systems & Simulation Laboratory	-	-	4	2
<b>Total</b>			<b>18</b>	<b>6</b>	<b>8</b>	<b>22</b>

**B.Tech IV-II Semester (EEE)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A02801 15A02802 15A02803	<b>MOOCS – II</b> 1. Instrumentation 2. Power System Dynamics and Control 3. Industrial Automation & Control	3	1	-	3
2.	15A02804 15A04702 15A02805	<b>MOOCS – III</b> 1. HVDC Transmission 2. Embedded Systems 3. Energy Resources & Technology	3	1	-	3
3.	15A02806	Comprehensive Viva Voce	-	-	4	2
4.	15A02807	Technical Seminar	-	-	4	2
5.	15A02808	Project Work	-	-	24	12
<b>Total</b>			<b>6</b>	<b>2</b>	<b>32</b>	<b>22</b>

**Minor Discipline in EEE**

S. No.	Course Code	Subject	L	T	P	C
1	15A02303	Control Systems Engineering	3	1	-	3
2	15A02402	Electrical Power Generating Systems	3	1	-	3
3	15A02502	Electrical Power Transmission Systems	3	1	-	3
4	15A02603	Power System Analysis	3	1	-	3
5	15M02101	Minor Discipline Project	-	-	-	8
		<b>Total</b>	<b>12</b>	<b>4</b>	<b>-</b>	<b>20</b>