

## R18 COURSE STRUCTURE FOR B.TECH I YEAR

### B. Tech. I Year I Semester

S.No.	Course Category	Course Title	L	T	P	Credits
1.	A21001	Mathematics-I	3	1	0	4.0
2.	A21002	Chemistry	3	1	0	4.0
3.	A21004	Chemistry Lab	0	0	3	1.5
4.	A21501	English	2	0	0	2.0
5.	A21081	English Language Skills Lab (ELSL)	0	0	2	1.0
6.	A21083	Programming for Problem Solving-I	2	0	0	2.0
7.	A21381	Programming for Problem Solving Lab-I	0	0	2	1.0
8.	A21581	Engineering Workshop	0	1	3	2.5
<b>Total</b>			<b>10</b>	<b>3</b>	<b>10</b>	<b>18</b>

### B. Tech. I Year II Semester

S.No.	Course Category	Course Title	L	T	P	Credits
1.	A22006	Mathematics-II	3	1	0	4.0
2.	A22007	Engineering Physics	3	1	0	4.0
3.	A22302	Engineering Physics Lab	0	0	3	1.5
4.	A22202	Basic Electrical Engineering	3	0	0	3.0
5.	A22502	Basic Electrical Engineering Lab	0	0	2	1.0
6.	A22084	Engineering Graphics & Modeling	1	0	3	2.5
7.	A22282	English Communication Skills Lab (ECSL)	0	0	2	1.0
8.	A22085	Programming for Problem Solving-II	2	0	0	2.0
9.	A22582	Programming for Problem Solving Lab-II	0	0	2	1.0
<b>Total</b>			<b>12</b>	<b>2</b>	<b>12</b>	<b>20</b>

## **R18 COURSE STRUCTURE FOR B.TECH II YEAR**

### **B. Tech. II Year I Semester**

<b>S. No.</b>	<b>Course Category</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	A23011	Complex Analysis & Fourier Transforms	3	0	0	3
2	A23010	Professional Communication	2	0	0	2
3	A23203	Power Systems –I	3	0	0	3
4	A23204	Network Analysis	3	0	0	3
5	A23205	Electro Magnetic Fields	3	0	0	3
6	A23206	Electrical Machines-I	3	0	0	3
7	A23283	Basic Simulation Tools Lab	0	0	0	1
8	A23284	Electric Circuits Lab	0	0	0	1
9	A23MC1	Environmental Science	2	0	0	0
<b>Total</b>			<b>19</b>	<b>0</b>	<b>4</b>	<b>19</b>

### **B. Tech. EEE II Year II Semester**

<b>S. No.</b>	<b>Course Category</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	A24014	Numerical Methods and Partial Differential Equations	3	0	0	3
2	A24109	Fluid Mechanics and Hydraulic Machinery	3	0	0	3
3	A24406	Electronic Devices and Circuits	3	0	0	3
4.	A24208	Electrical Machines-II	4	0	0	4
5	A24209	Power Systems - II	3	0	0	3
6	A24210	Control Systems	3	0	0	3
7	A24285	Electrical Machines-I Lab	0	0	2	1
8	A24484	Electronic Devices and Circuits Lab	0	0	2	1
9	A24MC1	Gender Sensitization	2	0	0	0
<b>Total</b>			<b>21</b>	<b>0</b>	<b>4</b>	<b>0</b>

## R18 COURSE STRUCTURE FOR B.TECH III YEAR

### B. Tech. EEE III Year I Semester

S.No	Course Category	Course Title	L	T	P	Credits
1	A25016	Managerial Economics and Financial Analysis	3	0	0	3
2	A25412	Switching Theory and Logic Design	3	0	0	3
3	A25212	Electrical Machines-III	3	0	0	3
4	A25213	Power Electronics	3	0	0	3
5	A25214/ A25215	Electrical Energy Conservation and Auditing/ Electrical Estimation and Costing	3	0	0	3
6	A25216/ A25217	Non-Conventional Energy Sources / Fundamentals of Electrical Power Generation and Protection	3	0	0	3
7	A25287	Electrical Machines-II Lab	0	0	2	1
8	A25087	Advanced Communication Skills Lab	0	0	2	1
9	A25TP1	Quantitative Methods & Logical Reasoning	2	0	0	1
<b>Total</b>			<b>20</b>	<b>0</b>	<b>4</b>	<b>21</b>

### B. Tech. EEE III Year II Semester

S.No	Course Category	Course Title	L	T	P	Credits
1	A26219	Electrical Measurements & Instrumentation	3	0	0	3
2	A26220	Computer Methods in Power Systems	3	0	0	3
3	A26221	Power Semiconductor Drives	3	0	0	3
4	A26222	Switch Gear and Protection	3	0	0	3
5	A26223/ A26224	Integrated Circuit and Applications/ Artificial Intelligence Techniques in Electrical Engineering	3	0	0	3
6	A26225/ A26226	Energy Auditing and Conservation/ Principles of Electric Power Utilization	3	0	0	3
7	A26288	Control Systems and Simulation Lab	0	0	2	1
8	A26289	Power Electronics and Simulation Lab	0	0	2	1
9	A26TP1	Personality Development & Behavioral Skills	2	0	0	1
<b>Total</b>			<b>20</b>	<b>0</b>	<b>4</b>	<b>21</b>

## R18 COURSE STRUCTURE FOR B.TECH IV YEAR

### B. Tech. EEE IV Year I Semester

S.No	Course Category	Course Title	L	T	P	Credits
1	A27428	Microprocessors and Interfacing Devices	3	0	0	3
2	A27227	Power Systems Operation and Control	3	0	0	3
3	A27228/ A27229	Electric Vehicles / Smart Grids	3	0	0	3
4	A27230/ A27231	Electrical Distribution Systems/ Industrial Electrical Systems	3	0	0	3
5	A27232/ A27233	Electric Vehicles and Hybrid Vehicles/ Energy Storage Systems	3	0	0	3
6	A27490	Microprocessors and Interfacing Lab	0	0	2	1
7	A27290	Electrical Measurements Lab	0	0	2	1
8	A272P1	Mini Project	0	0	0	3
<b>Total</b>			<b>15</b>	<b>0</b>	<b>4</b>	<b>20</b>

### B. Tech. EEE IV Year II Semester

S.No	Course Category	Course Title	L	T	P	Credits
1	A28234	Utilization of Electrical Energy	3	0	0	3
2	A28235	Renewable Energy and Energy Storage Technologies	3	0	0	3
3	A282TS	Technical Seminar	2	0	0	2
4	A282CV	Comprehensive Viva-Voce	0	0	0	2
5	A282P2	Major Project	0	0	0	10
<b>Total</b>			<b>8</b>	<b>0</b>	<b>0</b>	<b>20</b>

## R18 COURSE STRUCTURE (for FAST TRACK) B.Tech III EEE

### B. Tech. III Year I Semester

S.No.	Course Category	Course Title	L	T	P	Credits
1	H&S – 6	Managerial Economics and Financial Analysis	3	0	0	3
2	ES – 9	Switching Theory and Logic Design	3	0	0	3
3	PC – 8	Electrical Machines-III	3	0	0	3
4	PC – 9	Power Electronics	3	0	0	3
5	PE – 1	Electrical Energy Conservation and Auditing/ Electrical Estimation and Costing	3	0	0	3
6	OE – 1	Non-Conventional Energy Sources / Fundamentals of Electrical Power Generation and Protection	3	0	0	3
7	PC Lab – 5	Electrical Machines -II Lab	0	0	2	1
8	PC Lab – 6	Advanced Communication Skills Lab	0	0	2	1
9	MC – 3	Quantitative Methods & Logical Reasoning	2	0	0	1
<b>Total</b>			<b>20</b>	<b>0</b>	<b>4</b>	<b>21</b>

### B. Tech. III Year II Semester

S.No.	Course Category	Course Title	L	T	P	Credits
1	PC – 10	Electrical Measurements & Instrumentation	3	0	0	3
2	PC – 11	Computer Methods in Power Systems	3	0	0	3
3	PC – 12	Power Semiconductor Drives	3	0	0	3
4	PC – 13	Switch Gear and Protection	3	0	0	3
5	PE – 2	Integrated Circuit and Applications / Artificial Intelligence Techniques in Electrical Engineering	3	0	0	3
6	OE – 2	Energy Auditing and Conservation/ Principles of Electric Power Utilization	3	0	0	3
7	PC Lab – 7	Control Systems and Simulation Lab	0	0	2	1
8	PC Lab – 8	Power Electronics and Simulation Lab	0	0	2	1
9	MC – 4	Personality Development & Behavioural Skills	2	0	0	1
10	PC -16	Utilization of Electrical Energy	3	0	0	3
<b>Total</b>			<b>23</b>	<b>0</b>	<b>4</b>	<b>24</b>

**R18 COURSE STRUCTURE (for FAST TRACK) B.Tech IV EEE****B. Tech. IVYear I Semester**

<b>S. No.</b>	<b>Course Category</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	PC -14	Microprocessors and Interfacing Devices	3	0	0	3
2	PC -15	Power Systems Operation and Control	3	0	0	3
3	PE - 3	Electric Vehicles/ Smart Grids	3	0	0	3
4	PE – 4	Electrical Distribution Systems/ Industrial Electrical Systems	3	0	0	3
5	OE-3	Electric Vehicles and Hybrid Vehicles/ Energy Storage Systems	3	0	0	3
6	PC Lab – 9	Microprocessors and Interfacing Lab	0	0	2	1
7	PC Lab – 10	Electrical Measurements Lab	0	0	2	1
8	PW-1	Mini Project		0	0	3
9	PC - 17	Renewable Energy and Energy Storage Technologies	3	0	0	3
<b>Total</b>			<b>18</b>	<b>0</b>	<b>4</b>	<b>23</b>

**B. Tech. IV Year II Semester**

<b>S.No.</b>	<b>Course Category</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	TS	Technical Seminar	2	0	0	2
2	CVV	Comprehensive Viva-Voce	0	0	0	2
3	PW-2	Major Project	0	0	0	10
<b>Total</b>			<b>2</b>	<b>0</b>	<b>0</b>	<b>14</b>