

## B. Tech. (Electrical & Computer Engineering)

Year	THIRD SEMESTER						FOURTH SEMESTER					
	Sub. Code	Subject Name	L	T	P	C	Sub. Code	Subject Name	L	T	P	C
<b>II</b>	BB0025	Value Ethics & Governance	2	0	0	2	EO2001	Economics	3	0	0	3
	MA2103	Engineering Mathematics – III	2	1	0	3	MA2206	Engineering Mathematics – IV	2	1	0	3
	EL2101	Computer Organization & Architecture	3	0	0	3	EL2201	Operating Systems	3	1	0	4
	EL2102	Object Oriented Programming	3	1	0	4	EL2202	Network Analysis & Synthesis	3	1	0	4
	EL2103	Analog & Digital Systems	3	1	0	4	EL2203	Electrical Machines	3	1	0	4
	EL2104	Sensor & Sensor Circuits	3	1	0	4	*****	OPEN ELECTIVE – I	3	0	0	3
	EL2130	Programming Lab-I	0	0	2	1	EL2230	Programming Lab-II	0	0	2	1
	EL2131	Analog & Digital System Design Lab	0	0	2	1	EL2231	Electrical Machines Lab	0	0	2	1
	EL2132	System Simulation & Virtual Instrumentation Lab	0	0	2	1	EL2232	Project Based Learning Lab	0	0	2	1
			<b>15</b>	<b>5</b>	<b>6</b>	<b>23</b>			<b>16</b>	<b>4</b>	<b>6</b>	<b>24</b>
	<b>Total Contact Hours (L + T + P)</b>		<b>26</b>			<b>Total Contact Hours (L + T + P) + OE</b>		<b>26</b>				
<b>III</b>	FIFTH SEMESTER						SIXTH SEMESTER					
	BB0026	Organization & Management	3	0	0	3	EL3201	Computer Networks	3	0	0	3
	EL3101	Data Structures & Algorithms	3	1	0	4	EL3202	Data Base Management System	3	0	0	3
	EL3102	Microcontroller based System Design	3	1	0	4	EL3203	Power Electronics & Drives	3	1	0	4
	EL31XX	Control System	3	1	0	4	EL32XX	Program Elective – II	3	0	0	3
	EL31XX	Program Elective – I	3	0	0	3	EL32XX	Program Elective – III	3	0	0	3
	*****	Open Elective – II	3	0	0	3	*****	Open Elective – III	3	0	0	3
	EL3130	Data Structure Lab	0	0	2	1	EL3230	Data Base Management System Lab	0	0	2	1
	EL3131	Microcontroller Lab	0	0	2	1	EL3231	Power Electronics & Drives Lab	0	0	2	1
EL3132	Control & Automation Lab	0	0	2	1	EL3270	Minor Project – I	0	0	2	1	
			<b>18</b>	<b>3</b>	<b>6</b>	<b>24</b>			<b>18</b>	<b>1</b>	<b>6</b>	<b>22</b>
	<b>Total Contact Hours (L + T + P) + OE</b>		<b>27</b>			<b>Total Contact Hours (L + T + P) + OE</b>		<b>25</b>				
<b>IV</b>	SEVENTH SEMESTER						EIGHTH SEMESTER					
	EL4101	Electrical Power Systems	3	1	0	4	EL4270	Project Work/Practice School				12
	EL4102	Program Elective – IV	3	0	0	3						
	EL41XX	Program Elective – V	3	0	0	3						
	EL41XX	Program Elective – VI	3	0	0	3						
	EL41XX	Program Elective – VII	3	0	0	3						
	EL4130	Power System Lab	0	0	2	1						
	EL4170	Minor Project – II	0	0	4	2						
EL4171	Seminar / Industrial Training	0	0	2	1							
			<b>15</b>	<b>1</b>	<b>8</b>	<b>20</b>					<b>12</b>	
	<b>Total Contact Hours (L + T + P)</b>		<b>24</b>									

## Program Electives

<p><b>Program Elective – I</b></p> <p>EL3140: JAVA Programming EL3141: Data Science with R EL3142: Renewable Energy Sources EL3143: Modern Optimization Techniques</p>	<p><b>Program Elective – IV</b></p> <p>EL4140: Design &amp; Analysis of Algorithms EL4141: Web Technology EL4142: Electric Vehicle Technology EL4143: Soft Computing Techniques</p>
<p><b>Program Elective – II</b></p> <p>EL3240: LINUX Programming EL3241: Internet of Things EL3242: Digital Signal Processing EL3243: Engineering Systems Modelling</p> <p><b>Program Elective – III</b></p> <p>EL3250: Big Data Analysis EL3251: Intelligent Autonomous Systems EL3252: Solar Photovoltaic Systems EL3253: Energy Storage Devices</p>	<p><b>Program Elective – V</b></p> <p>EL4150: Artificial Intelligence &amp; Machine Learning EL4151: Digital Image Processing EL4152: Energy Auditing &amp; Management EL4153: Smart Grid Technologies</p> <p><b>Program Elective – VI</b></p> <p>EL4160: Robotics &amp; Automation EL4161: Blockchain Technology EL4162: Charging Technologies for Electric Vehicle EL4163: Distributed Energy Resources</p> <p><b>Program Elective – VII</b></p> <p>EL4170: Cloud Computing EL4171: Deep Learning and Cognitive Computing EL4172: Electricity Markets &amp; Operations EL4173: Modern Power Converters</p>

### Open Electives

EL2080: Solar Photovoltaic  
EL2081: MATLAB for Engineers  
EL3080: Fundamentals of Renewable Energy Sources  
EL3081: Introduction to Electric Vehicle Technology  
EL3082: Introduction to Electricity Markets  
EL3083: Energy Auditing