

**SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY (AUTONOMOUS)**

**B.Tech in Electrical & Electronics Engineering**

**COURSE STRUCTURE & SYLLABUS (2014-15)**

**I Year – I Semester**

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4H101	English – I	2	1	---	2	30	70
2	4H111	Engineering Mathematics –I	3	2	---	3	30	70
3	4H121	Engineering Physics – I	3	1	---	3	30	70
4	4H131	Engineering Chemistry-I	3	1	---	3	30	70
5	4F101	Computer Programming	4	1	---	4	30	70
6	4B101	Engineering Drawing - I	2	---	4	4	30	70
7	4H171	ELCS Lab - I	---	---	2	1	25	50
8	4H181	Engineering Physics Lab – I	---	---	3/2	1	25	50
9	4H186	Engineering Chemistry Lab	---	---	4/2	2	25	50
10	4F171	Computer Programming Lab	---	---	3	2	25	50
11	4B171	Engineering Workshop -I	---	---	3/2	1	25	50
12	4F172	IT work shop – I	---	---	3/2	1	25	50
13	4A185	Technical paper writing & seminar - I	---	---	2	1	25	---
<b>Total</b>			<b>17</b>	<b>6</b>	<b>17.5</b>	<b>28</b>	<b>355</b>	<b>720</b>

**I Year – II Semester**

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4H202	English – II	2	1	---	2	30	70
2	4H213	Engineering Mathematics – II	4	1	---	4	30	70
3	4H222	Engineering Physics – II	3	1	---	3	30	70
4	4E201	Data Structures and C ++	4	1	---	4	30	70
5	4B202	Engineering Drawing – II	2	---	3	3	30	70
6	4H232	Engineering Chemistry-II	3	1	---	3	30	70
7	4A201	Circuits & Networks - I	3	2	---	3	30	70
8	4H272	English Language Lab - II	---	---	2	1	25	50
9	4E271	Data Structures and C ++ Lab	---	---	3	2	25	50
10	4B273	Engineering Workshop – II	---	---	3/2	1	25	50
11	4H282	Engineering Physics Lab- II	---	---	3/2	1	25	50
12	4A286	Technical paper writing & seminar – II	---	---	2	1	25	---
<b>Total</b>			<b>21</b>	<b>7</b>	<b>13</b>	<b>28</b>	<b>335</b>	<b>690</b>

## II Year – I Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4H315	Engineering Mathematics-III	3	2	---	3	30	70
2	4CC02	Switching Theory and Logic Design	4	1	---	4	30	70
3	4CC01	Electronic Devices and Circuits	4	1	---	4	30	70
4	4A302	Electro Magnetic Fields	3	1	---	3	30	70
5	4A303	Electrical Machines – I	3	2	---	3	30	70
6	4A304	Circuits & Networks – II	4	1	---	4	30	70
7	4H373	Functional and Communicative Written English	---	---	3	2	25	50
8	4CC71	Electronic Devices & Circuits Lab	---	---	4	2	25	50
9	4A371	Electrical Circuits & Simulation Lab	---	---	4	2	25	50
10	4A387	Technical paper writing & seminar – III	---	---	2	1	25	---
<b>Total</b>			<b>21</b>	<b>8</b>	<b>13</b>	<b>28</b>	<b>280</b>	<b>570</b>

## II Year – II Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4HC16	Probability & Statistics	3	1	---	3	30	70
2	4A405	Electrical Machines – II	3	1	---	3	30	70
3	4A406	Power System – I	4	1	---	4	30	70
4	4AC07	Control Systems	4	1	---	4	30	70
5	4C433	Electronic Circuits	3	1	---	3	30	70
6		<b>Professional Elective – I</b>	3	2	---	3	30	70
7	4HC74	Effective English Communication and Soft Skills	---	---	3	2	25	50
8	4A472	Comprehensive Viva-Voce- I	---	---	---	1	---	50
9	4A473	Electrical Machines Lab – I	---	---	4	2	25	50
10	4C481	Electronic Circuits Lab	---	---	4	2	25	50
11	4A488	Technical paper writing & seminar – IV	---	---	2	1	25	---
<b>Total</b>			<b>20</b>	<b>7</b>	<b>13</b>	<b>28</b>	<b>280</b>	<b>620</b>

## Professional Elective –I

4A717	High Voltage Engineering
4EC41	Java Programming
4DC03	Computer Organization & Architecture

## III Year – I Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4BC04	Basic Mechanical Engineering	3	1	---	3	30	70
2	4CC09	Linear and Digital IC Applications	3	1	---	3	30	70
3	4A508	Electrical Machines – III	4	1	--	4	30	70
4	4A509	Power Electronics	3	1	--	3	30	70
5	4A510	Power Systems – II	4	1	--	4	30	70
6		<b>Open Elective – I</b>	3	--	--	3	30	70
7	4HC76	Quantitative Aptitude	---	--	3	2	25	50
8	4A574	Group Project	--	--	3	1	25	50
9	4CC76	Linear and Digital IC Applications Lab	--	--	3	2	25	50
10	4A575	Control Systems Lab	--	--	3	2	25	50
11	4A589	Technical paper writing and seminar - V	---	---	2	1	25	---
<b>Total</b>			<b>20</b>	<b>5</b>	<b>14</b>	<b>28</b>	<b>305</b>	<b>620</b>

## Open Elective – I

4CC04	Signals And Systems
4FC21	Fundamentals of Database Management Systems
4DC01	Discrete Structures And Graph Theory
4DC07	VLSI Design
4DC06	Embedded And Real Time Systems
4BC15	Product and Service Design
4ZC04	Entrepreneurship
4EC26	SAP-I

## III Year – II Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4ZC01	Managerial Economics and Financial Analysis	3	1	--	3	30	70

2	4DC05	Microprocessor and Microcontrollers	3	1	--	3	30	70
3	4A616	Utilization of Electrical Energy	3	1	--	3	30	70
4	4A611	Power Systems – III	4	1	---	4	30	70
5	4A612	Measurements & Instrumentation	4	1	--	4	30	70
6		<b>Open Elective – II</b>	3	--	--	3	30	70
7	4HC77	Logical Reasoning	---	--	3	2	25	50
8	4A676	Comprehensive Viva-Voce- II	--	--	--	1	--	50
9	4A677	Electrical Machines Lab – II	--	--	3	2	25	50
10	4A678	Power Electronics Lab	--	--	3	2	25	50
11	4A690	Technical paper writing and seminar – VI	---	---	2	1	25	---
<b>Total</b>			<b>20</b>	<b>5</b>	<b>11</b>	<b>28</b>	<b>280</b>	<b>620</b>

### Open Elective – II

4HC51	Basic Spanish Language
4HC41	Basic French Language
4HC46	Basic German Language
4ZC05	General Management and Entrepreneurship
4ZC07	Fundamentals of Disaster Management
4ZC12	Project Management and Finance
4E607	Operating System Concepts
4EC27	SAP-II

\*\*\*Industry Oriented Mini Project will be conducted by all students in summer vacation of III / IV B.Tech, II – Semester for a period of One Month. The report must be submitted in IV / IV B.Tech I –Semester and will have to be defended. Marks allotted are “75” and Two Credits are provided.

### IV Year – I Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							INT	EXT
1	4GC33	Culture values, Professional Ethics and IPR	2	1	---	2	30	70
2	4A714	Power Systems – IV	4	0	--	4	30	70
3	4A715	Non conventional Sources of Energy	3	1	--	3	30	70
4	4A713	Power Semi Conductor Drives	4	1	--	4	30	70
5	4ZC02	Management Science	4	1	--	4	30	70
6		<b>Professional Elective – II</b>	4	1	---	4	30	70
7	4A779	Project Phase –I	--	--	2	1	50	--
8	4A780	Industry Oriented Mini Project	--	--	--	2	25	50
9	4A781	Electrical workshop	--	--	3	2	25	50
10	4DC71	Microprocessor and Microcontrollers Lab	--	--	3	2	25	50

11	4A782	Measurements and Instrumentation Lab	--	--	3	2	25	50
12	4A791	Technical paper writing and seminar - VII	---	---	2	1	25	---
<b>Total</b>			<b>21</b>	<b>5</b>	<b>13</b>	<b>31</b>	<b>355</b>	<b>620</b>

### Professional Elective – II

4A717	High Voltage Engineering
4CC15	Digital Signal Processing
4A718	Optimization Techniques
4FC10	Neural Networks and Fuzzy Logic
4EC05	Fundamentals of Computer Networks

### IV Year – II Semester

S.No.	Subject Code	Subject	L	T	P/D	C	Max Marks	
							Int	Ext
1	4A820	Electrical Distribution Systems	3	1	---	3	30	70
	4GC06	Environmental Studies	4	--	--	4	30	70
2		<b>Professional Elective – III</b>	4	--	---	4	30	70
3	4A883	Project Phase -II	---	---	15	12	50	150
4	4A884	Comprehensive Viva-voce-III	---	---	---	1	---	50
5	4A892	Technical paper writing and seminar - VIII	---	---	2	1	25	---
<b>Total</b>			<b>11</b>	<b>1</b>	<b>17</b>	<b>25</b>	<b>165</b>	<b>410</b>

### Professional Elective – III

4A819	Flexible AC Transmission Systems
4FC22	Big Data Analytics
4A821	High Voltage DC Transmission
4A823	Control of Electric Drives
4ZC19	Project Management and Structured Finance

**L** - Lectures; **T** - Tutorial; **P/D** - Practical / Drawing; **C** – Credit