

## SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY

### DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING (A15 Regulation) CBCS Course Structure

#### FIRST YEAR - I SEMESTER

S. No.	Code	Subject	L	T	P/D	C	Internal	External
1	5H101	English – I	2	-	-	2	25	75
2	5H111	Engineering Mathematics – I	3	1	-	3	25	75
3	5H121	Engineering Physics – I	3	1	-	3	25	75
4	5H131	Engineering Chemistry	2	1	-	2	25	75
5	5F101	Computer Programming	3	1	-	3	25	75
6	5B101	Engineering Drawing – I	1	1	4	3	25	75
7	5H171	English Language Communication Skills Lab	-	-	2	1	25	75
8	5H181	Engineering Physics Lab – I	-	-	2/2	1	25	75
9	5H186	Engineering Chemistry Lab	-	-	2/2	1	25	75
10	5F171	Computer Programming Lab	-	-	3	2	25	75
11	5B171	Engineering Workshop – I	-	-	2/2	1	25	75
12	5F172	IT Workshop – I	-	-	2/2	1	25	75
13	5D191	Seminar on Current Affairs / Technical Topic	-	-	2	1	100	-
<b>Total :</b>			<b>14</b>	<b>5</b>	<b>15</b>	<b>24</b>	<b>400</b>	<b>900</b>

#### FIRST YEAR - II SEMESTER

S. No.	Code	Subject	L	T	P/D	C	Internal	External
1	5H202	English – II	2	2	-	2	25	75
2	5H213	Engineering Mathematics-II	3	1	-	3	25	75
3	5H223	Applied Physics – I	3	1	-	3	25	75
4	5E201	Data Structures and C++	3	1	-	3	25	75
5	5B202	Engineering Drawing - II	1	1	2	2	25	75
6	5H232	Environmental Chemistry and Ecology	2	1	-	2	25	75
7	5A242	Network Analysis	3	1	-	3	25	75
8	5H233	Ethics, Morals, Gender Sensitization and Yoga	1	1	-	1	25	75
9	5E271	Data Structures and C++ Lab	-	-	3	2	25	75
10	5B272	Engineering Workshop – II	-	-	2/2	1	25	75
11	5H282	Engineering Physics Lab - II	-	-	2/2	1	25	75
12	5D292	Seminar on Science and its Impact	-	-	2	1	100	-
<b>Total :</b>			<b>18</b>	<b>9</b>	<b>9</b>	<b>24</b>	<b>375</b>	<b>825</b>

## SECOND YEAR - I SEMESTER

Sl. No.	Code	Subject	L	T	P/D	C	Internal	External
1	5H373	Functional Communicative Written English (FCWE)	1	2	-	1	25	75
2	5H315	Engineering Mathematics-III	3	1	-	3	25	75
3	5CC02	Switching Theory and Logic Design	3	1	-	3	25	75
4	5E302	Object Oriented Programming Through Java	3	1	-	3	25	75
5	5BC04	Elements of Mechanical Engineering	3	1	-	3	25	75
6	5C301	Electronic Devices and Circuits	3	1	-	3	25	75
7	5D301	Discrete Structures and Graph Theory	3	1	-	3	25	75
8	5E372	Object Oriented Programming Through Java Lab	-	-	3	2	25	75
9	5C371	Electronic Devices and Circuits Lab	-	-	3	2	25	75
10	5D393	Seminar on Technology and its Impact/Technical topic	-	-	2	1	100	-
<b>Total :</b>			<b>19</b>	<b>8</b>	<b>8</b>	<b>24</b>	<b>325</b>	<b>675</b>

## SECOND YEAR – II SEMESTER

Sl. No.	Code	Subject	L	T	P/D	C	Internal	External
1	5H474	Effective English Communication and Soft Skills	1	2	-	1	25	75
2	5HC17	Probability and Statistics	3	1	-	3	25	75
3	5AC43	Electrical Technology	3	1	-	3	25	75
4	5FC03	Database Management Systems	3	1	-	3	25	75
5	5C406	Pulse and Digital Circuits	3	1	-	3	25	75
6	5DC11	Computer Organization and Architecture	3	1	-	3	25	75
7	5DC14	Software Engineering	3	1	-	3	25	75
8	5AC94	Electrical Technology Lab	-	-	2	1	25	75
9	5DC75	Applied DBMS Lab	-	-	2	1	25	75
10	5C482	Pulse and Digital Circuits Lab	-	-	2	1	25	75
11	5D481	Comprehensive Viva Voce - I	-	-	-	1	50	50
12	5D494	Technical Seminar	-	-	2	1	100	-
<b>Total :</b>			<b>18</b>	<b>7</b>	<b>8</b>	<b>24</b>		

## THIRD YEAR – I SEMESTER

S. No.	Code	Subject	L	T	P/D	C	Internal	External
1	5ZC01	Managerial Economics and Financial Analysis	2	2	-	2	25	75
2	5EC03	Operating Systems	3	1	-	3	25	75
3	5CC16	Linear and Digital IC Applications	3	1	-	3	25	75
4	5D516	Signals and Modulation Theory	3	1	-	3	25	75
5		<b>Professional Elective - I</b>	3	1	-	3	25	75
6		<b>Professional Elective - II</b>	3	1	-	3	25	75
7	5H501	Quantitative Aptitude	-	-	2	1	25	75
8	5D577	Group Project	-	-	2	1	25	75
9	5CC89	Linear and Digital IC Applications Lab	-	-	4	2	25	75
10	5D585	Signals and Modulation Techniques Lab	-	-	4	2	25	75
11	5D595	Technical Literature Review and Seminar - I	-	-	2	1	100	-
		<b>Total :</b>	<b>17</b>	<b>6</b>	<b>12</b>	<b>24</b>	<b>350</b>	<b>750</b>

## THIRD YEAR – II SEMESTER

S. No.	Code	Subject	L	T	P/D	C	Internal	External
1		<b>Open Elective-I</b>	2	1	-	2	25	75
2	5FC09	Web Technologies	3	1	-	3	25	75
3	5FC04	Design and Analysis of Algorithms	3	1	-	3	25	75
4	<b>5DC05</b>	<b>Microprocessors and Microcontrollers</b>	3	1	-	3	25	75
5		<b>Professional Elective-III</b>	3	1	-	3	25	75
6		<b>Professional Elective-IV</b>	3	1	-	3	25	75
7	5H601	Logical Reasoning	-	-	2	1	25	75
8	5FC80	Web Technologies Lab	-	-	3	2	25	75
9	<b>5DC71</b>	<b>Microprocessors and Microcontrollers Lab</b>	-	-	3	2	25	75
10	5D682	Comprehensive Viva Voce - II	-	-	-	1	50	50
11	5D696	Technical Literature Review and Seminar - II			2	1	100	-
		<b>Total :</b>	<b>15</b>	<b>6</b>	<b>10</b>	<b>24</b>		

## FOURTH YEAR – I SEMESTER

S. No.	Code	Subject	L	T	P/D	C	Internal	External
1		<b>Open Elective – II</b>	2	1	-	2	25	75
2		<b>Open Elective – III</b>	2	1	-	2	25	75
3	5D702	Automata Theory and Compiler Design	3	1	-	3	25	75
4	5DC06	Embedded and Real Time Systems	4	1	-	4	25	75
5	5DC07	VLSI Design	3	1	-	3	25	75
6		<b>Professional Elective – V</b>	3	1	-	3	25	75
7	5GC49	Intellectual Property Rights	1	1	-	1	25	75
8	5DC72	Embedded Systems Lab	-	-	3	2	25	75
9	5DC73	VLSI Lab	-	-	3	2	25	75
10	5D778	Industry Oriented Mini Project	-	-	-	2	25	75
11	5D779	Project – I	-	1	3	3	25	75
12	5D797	Technical Literature Review and Seminar - III	-	-	2	1	100	-
		<b>Total:</b>	<b>18</b>	<b>7</b>	<b>11</b>	<b>28</b>	<b>375</b>	<b>825</b>

## FOURTH YEAR – II SEMESTER

S. No.	Code	Subject	L	T	P/D	C	Internal	External
1	5FC11	Information Security	3	1	-	3	25	75
2	5ZC02	Management Science	3	-	-	3	25	75
3	5D880	Project – II	-	-	20	12	50	150
4	5D883	Comprehensive viva voce - III	-	-	-	1	50	50
5	5D898	Technical Literature Review and Seminar - IV			2	1	100	-
		<b>Total :</b>	<b>6</b>	<b>2</b>	<b>22</b>	<b>20</b>		

**B.TECH ECM 2015-16 COURSE STRUCTURE**  
**UNDER CHOICE BASED CREDIT SYSTEM (CBCS)**  
**MAJOR STREAMS (PROFESSIONAL ELECTIVE STREAMS)**

L    T    P/D    C  
3    1    -    3

**NOTE:** Following are the streams which the student can choose from III-yr I-Sem in CBCS

<b>Stream / Year-Semester</b>	<b>III-Year I-Semester / (Professional Elective – I)</b>	<b>III-Year I-Semester / (Professional Elective – II)</b>	<b>III-Year II-Semester / (Professional Elective – III)</b>	<b>III-Year II-Semester / (Professional Elective – IV)</b>	<b>IV-Year I-Semester / (Professional Elective – V)</b>
<b>Communications and Signal Processing</b>	Random Variables and Stochastic Processes (5CC46)	Telecommunication Switching Systems and Networks	Digital Communication	Digital Signal Processing	Cellular and Mobile Communications
<b>Databases</b>	<b>Distributed Databases (5FC13)</b>	<b>Data Warehousing and Data Mining (5FC05)</b>	<b>Information Retrieval Systems (5FC15)</b>	<b>Cloud Computing (5FC14)</b>	<b>Big Data Analytics (5FC17)</b>
<b>Machine Learning</b>	Introduction to Machine Learning (5FC30)	Image Processing (5EC16)	Artificial Intelligence (5EC15)	Pattern Recognition (5FC31)	Soft Computing (5EC25)
<b>Industry Elective – Big Data Analytics</b>	<b>Cloud Computing for Business Analytics (5FC25)</b>	<b>Business Intelligence (Tableau Based Exercise) (5FC26)</b>	<b>Hadoop and Big Data Analytics (5FC27)</b>	<b>Social, Web and Mobile Analytics (5EC32)</b>	<b>Database Security (5FC21)</b>
<b>Industry Elective - Cloud Computing</b>	Introduction to Virtualization and Cloud (5EC30)	Cloud Computing Architecture and Deployment Models (5EC33)	Management and Security in Cloud (5EC31)	Social, Web and Mobile Analytics (5EC32)	Database Security (5FC21)
<b>Industry Elective - IoT</b>	<b>Cloud Computing for IoT (5DC58)</b>	<b>Introduction to Internet of Things (IoT) (5DC57)</b>	<b>Business Intelligence for IoT (5DC59)</b>	Developing IoT with case studies (5DC60)	Database Security (5FC21)
<b>Advanced Courses</b>	<b>Software Automation and Testing (5EC11)</b>	Shell Programming and Scripting Languages (5DC21)	C# and .NET Framework (5FC16)	Data Communications and Computer Networks (5DC04)	Internet of Things (IoT) (5DC55)

**MINOR STREAMS (OPEN ELECTIVES)**

L	T	P/D	C
2	1	-	2

**NOTE:** Following are the **Open Elective (Minor) streams** which the student can choose

**From III-yr II-Sem** under CBCS

<b>Stream / Year-Semester</b>	<b>III-Year II-Semester / (Open Elective – I)</b>	<b>IV -Year I-Semester / (Open Elective – II)</b>	<b>IV-Year I-Semester / (Open Elective – III)</b>
<b>Bio-Tech</b>	Biology for Engineers (5GC51)	Fundamentals of Bio-Informatics (5GC47)	Computational Biology / Bio-Medical Instrumentation (5GC50 / 5GC48)
<b>Electrical</b>	Control System Engineering (5AC46)	Fundamentals of Measurements and Instrumentation (5AC44)	Fundamentals of Renewable Energy Sources (5AC45)
<b>Management</b>	Banking Operations, Insurance and Risk Management (5ZC05)	Entrepreneurship, Project Management and Structured Finance (5ZC19)	Enterprise Resource Planning (5ZC08)
<b>Mechanical</b>	Fundamentals of Smart Materials (5BC61)	Principles of Operations Research (5BC63)	Basic Manufacturing Processes / Principles of Automation and Robotics (5BC62 / 5BC65)
<b>Technology Entrepreneurship</b>	Product and Services (5ZC20)	General Management and Entrepreneurship (5ZC21)	Enterprise Resource Planning (5ZC08)
<b>SAP</b>	SAP – I: SAP - ABAP Workbench Fundamentals (5EC26)	SAP – II: SAP - ABAP Workbench Concepts (5EC27)	Enterprise Resource Planning (5ZC08)
<b>Foreign Languages</b>	German (5HC46)	French (5HC41)	Spanish (5HC51)