

SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY
Electronics and Communication Engineering
B.Tech Course Structure - Autonomous Regulation: 2017-18

I YEAR I SEMESTER COURSE STRUCTURE

Sl. No	Code	Subject	L	T	P/D	C	Max. Marks	
							CIE	SEE
1.	6H101	English-I	2	-	-	2	25	75
2.	6H111	Engineering Mathematics – I	3	2	-	3	25	75
3.	6H121	Engineering Physics – I	3	1	-	3	25	75
4.	6H131	Engineering Chemistry	2	1	-	2	25	75
5.	6F101	Computer Programming	3	1	-	3	25	75
6.	6B101	Engineering Drawing – I	1	1	4	3	25	75
7.	6H171	English language Communication skills lab	-	-	2	1	25	75
8.	6H181	Engineering Physics Lab-I	-	-	2	1	25	75
9.	6H186	Engineering Chemistry Lab	-	-	2	1	25	75
10.	6F171	C Programming Lab	-	-	4	2	25	75
11.	6B171	Engineering workshop-I	-	-	2	1	25	75
12.	6F172	IT Workshop – I	-	-	2	1	25	75
13.	6C191	Seminar on current affairs /Technical Topic	-	-	2	1	100	-
Total :			14	6	20	24	400	900

CIE – Continuous Internal Evaluation

SEE – Semester End Examination

I YEAR II SEMESTER COURSE STRUCTURE

Sl. No.	Code	Subject	L	T	P/D	C	Max. Marks	
							CIE	SEE
1.	6H202	English – II	2	2	-	2	25	75
2.	6H213	Engineering Mathematics – II	3	2	-	3	25	75
3.	6H223	Applied Physics – I	3	1	-	3	25	75
4.	6E201	Data Structures	3	1	-	3	25	75
5.	6B202	Engineering Drawing – II	1	1	2	2	25	75
6.	6H232	Environmental and Applied Chemistry	2	1	-	2	25	75
7.	6AC42	Network Analysis	3	1	-	3	25	75
8.	6ZC03	Gender Sensitization, Values, Ethics and Yoga	1	1	-	1	25	75
9.	6E271	Data structure Lab (C,C++)	-	-	4	2	25	75
10.	6H282	Engineering Physics Lab – II	-	-	2	1	25	75
11.	6F272	Engineering Workshop – II	-	-	2	1	25	75
12.	6C292	Seminar on Science and its impact / Technical Topic	-	-	2	1	100	-
Total :			18	10	12	24	375	825

II YEAR I SEMESTER COURSE STRUCTURE

Sl. No	Code	Subject	L	T	P/	C	Max. Marks	
							CIE	SEE
1.	6H373	Functional Communicative English	1	2	-	1	25	75
2.	6H316	Engineering Mathematics-III	3	2	-	3	25	75
3.	6C301	Electronic Devices and Circuits	3	1	-	3	25	75
4.	6C302	Switching Theory and Logic Design	3	1	-	3	25	75
5.	6C303	Probability Theory and Stochastic Process	3	1	-	3	25	75
6.	6CC04	Signals and Systems	3	1	-	3	25	75
7.	6EC70	Java Programming	2	2	-	2	25	75
8.	6C371	Electronic Devices & Circuits Lab	-	-	4	2	25	75
9.	6C372	Basic Simulation Lab	-	-	4	2	25	75
10.	6EC74	Java Programming lab	-	-	2	1	25	75
11.	6C393	Seminar on Technology and Its Impact/Technical Topic	-	-	2	1	100	-
Total :			18	10	12	24	350	750

II YEAR II SEMESTER COURSE STRUCTURE

Sl. No	Code	Subject	L	T	P/	C	Max. Marks	
							CIE	SEE
1.	6C405	Pulse and Digital Circuits	3	1	-	3	25	75
2.	6C406	Analog Communications	3	1	-	3	25	75
3.	6C407	Electronic Circuit Analysis	3	1	-	3	25	75
4.	6C408	Electromagnetic Theory and Transmission Lines	3	1	-	3	25	75
5.	6BC66	Elements of Mechanical Engineering	2	1	-	2	25	75
6.	6ZC01	Managerial Economics and Finance Analysis	2	2	-	2	25	75
7.	6C473	Pulse and Digital Circuits Lab	-	-	4	2	25	75
8.	6C474	Electronic Circuit Analysis Lab	-	-	4	2	25	75
9.	6C475	Analog Communications Lab	-	-	4	2	25	75
10.	6C494	Technical Seminar	-	-	2	1	100	-
11.	6C488	Comprehensive Viva Voce-I	-	-	-	1	50	50
Total :			16	7	14	24	375	725

III Year B. Tech (ECE) – I Sem

S.No.	Subject Code	Subject	L	T	P/D	C	Marks	
							CIE	SEE
1	6C509	Digital Signal Processing	3	1	-	3	25	75
2	6C510	Microprocessors, Microcontrollers and Applications	3	1	-	3	25	75
3	6C511	Digital Communications	3	1	-	3	25	75
4	6C512	Antennas and Wave Propagation	3	1	-	3	25	75
5		Professional Elective – I	3	-	-	3	25	75
6		Open Elective –I	2	1	-	2	25	75
7		Effective English Communication and Soft Skills	-	-	2	1	25	75
8		Quantitative Aptitude	-	-	2	1	25	75
9	6C576	MPMCA Lab	-	-	4	2	25	75
10	6C577	Digital Signal Processing Lab	-	-	4	2	25	75
11	6C561	Group Project	-	-	2	1	25	75
12	6C562	Summer Internship Evaluation	-	-	-	1	25	75
13	6C595	Technical Literature Review and Seminar –I	-	-	2	1	100	-
Total			17	5	16	26	400	900

Professional Elective-I			
S. No.	Stream	Subject Code	Subject Name
1	VLSI Technology /Advanced Electronics	6C516	Programmable Logic Devices
2	Embedded Systems	6C517	Embedded C Programming
3	Signal Processing	6C518	Multi - Rate Signal Processing
4	Communications	6C519	Telecommunication Switching Systems & Networks
5	IOT	6C520	Introduction to Internet of Things (IoT)
6	CISCO CCNA	6C521	Introduction to Networks
7	SWAYAM MOOCS Course*		

*The department will identify the MOOCS Course from the available courses in SWAYAM portal for the semester

Open Elective-I			
S. No.	Stream	Subject Code	Subject Name
1	Biology		Biology for Engineers
2	Management		BOIRM
3	Computer Science		Data Base Systems
4	Electrical & Electronics		Fundamentals of Power Electronics
5	Mechanical		Fundamentals of Smart Materials
6	Technology Entrepreneurship		Product and Services
7	Cloud Computing & Analytics		Introduction to Cloud computing for IOT
8	Social Sciences Stream		Basics of Indian Economy

III Year B. Tech (ECE) – II Sem

S.No	Subject Code	Subject	L	T	P/D	C	Marks	
							CIE	SEE
1	6C613	Microwave and Optical Communications	3	1	-	3	25	75
2	6C614	Linear and Digital IC Applications	3	1	-	3	25	75
3		Electrical Technology	2	1	-	2	25	75
4		Management Science and Financial Accounting	2	1	-	2	25	75
5		Cellular and Mobile Communication	3	1	-	3	25	75
6		Open Elective-II	2	1	-	2	25	75
7		Professional Elective-II	3	1	-	3	25	75
8		Logical Reasoning	-	-	2	1	25	75
9	6C678	Digital Communications Lab	-	-	4	2	25	75
10	6C679	Linear and Digital IC Application Lab	-	-	4	2	25	75
11		Electrical Technology Lab			2	1	25	75
12	6C663	Comprehensive Viva Voce-II	-	-	-	1	50	50
13	6C696	Technical Literature Review and Seminar –II	-	-	2	1	100	-
Total			16	7	14	26	425	875

Open Elective-II			
S. No.	Stream	Subject Code	Subject Name
1	Biology		Fundamentals of Bio – Informatics
2	Management		Entrepreneurship, Project Management and Structured Finance
3	Computer Science		Operating Systems Concepts
4	Electrical & Electronics		Fundamentals of Measurements & Instrumentation
5	Mechanical		Principles of Operation Research
6	Technology Entrepreneurship		Innovation and Design Thinking
7	Cloud Computing & Analytics		Business Analytics for IOT
8	Social Sciences Stream		Basics of Polity and Ecology
9	SWAYAM MOOCS Course*		
*The department will identify the MOOCS Course from the available courses in SWAYAM portal for the semester			
Professional Elective-II			
1	VLSI Technology/ Advanced Electronics		Structured Digital System Design
2	Embedded Systems		Developing Embedded IOT Applications
3	Signal Processing		Digital Image Processing
4	Communications		Software Defined Radio
5	IOT		Developing IOT with case studies
6	CISCO CCNA		Routing and Switching Essentials

IV Year B. Tech (ECE) – I Sem

S.No.	Subject Code	SUBJECT	L	T	P/D	C	Marks	
							CIE	SEE
1	6C715	VLSI Technology and Design	3	1	-	3	25	75
3		Computer Networks	3	1	-	3	25	75
4		Linear Control Systems	2	1	-	2	25	75
5		Open Elective-III	3	-	-	3	25	75
6		Professional Elective-III	3	-	-	3	25	75
		Professional Elective-IV	3	-	-	3	25	75
7	6C780	Micro Wave and Optical Communications Lab	-	-	4	2	25	75
8	6C781	VLSI TD Lab	-	-	4	2	25	75
9	6C764	Industry Oriented Mini Project	-	-	-	1	25	75
10	6C765	Project –I	-	-	2	3	100	-
11	6C797	Technical Literature Review and Seminar –III	-	-	2	1	100	-
Total			17	3	12	26	425	675

Professional Elective- III			
1	VLSI Technology/ Advanced Electronics		Digital Design Through Verilog
2	Embedded Systems		DSP Processors and Architectures
3	Signal Processing		Wavelets Theory and Applications
4	Communications		Satellite communications Radar Systems
5	CISCO CCNA		Scaling Networks
Professional Elective- IV			
1	VLSI Technology/ Advanced Electronics		Introduction to MEMS
2	Embedded Systems		Embedded Real Time Systems
3	Signal Processing		Fuzzy Logic and Neural Networks
4	Communications		Spread Spectrum communications MIMO OFDM
Open Elective-III			
	Biology		Biomedical Instrumentation
	Management		Enterprise Resource Planning
	Computer Science		Data Analytics Network Security and Cryptography
	Electrical & Electronics		Fundamentals of Renewable Energy Sources
	Mechanical		Basic Manufacturing Processes
	Technology Entrepreneurship		General Management and Entrepreneurship
	Social Sciences Stream		Indian History, Culture and Geography

IV Year B. Tech (ECE) – II Sem

S.No.	Subject Code	SUBJECT	L	T	P/D	C	Marks	
							CIE	SEE
1		Intellectual Property Rights	1	1	-	1	25	75
2		Professional Elective-V	3	-	-	3	25	75
3	6C866	Project –II	-	-	20	12	50	150
4	6C867	Comprehensive Viva Voce-III	-	-	-	1	50	50
5	6C898	Technical Literature Review and Seminar –IV	-	-	2	1	100	-
Total			6	1	22	18	250	350

Professional Elective-V			
1	VLSI Technology		Introduction to System Engineering
2	Embedded Systems		System on-Chip Architecture
3	Signal Processing		Digital Speech Signal Processing
4	Communications		Wireless Communications and Networks Wireless Adhoc Networks
5	CISCO CCNA		Network Connecting Protocols

*- The highlighted courses are newly introduced in the curriculum based on feedback from various stake holders and skills-in-demand analysis.