

## Diploma in Electronics and Communication Engineering

### Syllabus Overview

#### Semester - First

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of <b>Int. &amp; Ext.</b>
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
1.1	*English and Communication Skills – I	3	2	25	25	50	75	3	25	3	100	150
1.2	*Applied Mathematics - I	5	-	25	-	25	75	3	-	-	75	100
1.3	*Applied Physics – I	4	2	25	25	50	75	3	25	3	100	150
1.4	*Applied Chemistry – I	4	2	25	25	50	75	3	25	3	100	150
1.5	*Basics of Information Technology	-	3	-	50	50	-	-	50	3	50	100
1.6	*Engineering Drawing – I	-	6	-	50	50	100	4	-	-	100	150
1.7	*General Workshop Practice – I	-	6	-	100	100	-	-	75 <sup>+</sup>	4	75	175
#Student Centred Activities including Traffic Awareness and Road Safety Camp(I)		-	3	-	25	25	-	-	-	-	-	25
	Total	16	24	100	300	400	400	-	200	-	600	1000

\* Common course with other diploma programmes

# SCA will comprise of co-curricular activities like extension lectures, games, hobby clubs including photography, robotocs etc., seminars, declamation contests, educational field visits, N.C.C., N.S.S., Cultural Activities etc..

+ Including 25 marks for viva-voce.

**Semester - Second**

SR. NO.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of <b>Int. &amp; Ext.</b>
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
2.1	*English and Communication Skills – II	3	2	25	25	50	75	3	25	3	100	150
2.2	*Applied Mathematics - II	5	-	25	-	25	75	3	-	-	75	100
2.3	*Applied Physics – II	4	2	25	25	50	75	3	25	3	100	150
2.4	**Basic Electronics	4	2	25	25	50	75	3	25	3	100	150
2.5	Basic Electrical Engineering	4	2	25	25	50	75	3	25	3	100	150
2.6	*Environment Studies	3	-	25	-	25	75	3	-	-	50	100
2.7	*General Workshop Practice – II	-	6	-	100	100	-	-	75 <sup>+</sup>	4	75	175
#Student Centred Activities including Traffic Awareness and Road Safety Camp(II)		-	3	-	25	25	-	-	-	-	-	25
	Total	23	17	150	225	375	450	-	175	-	625	1000

\* Common course with other diploma programmes

\*\* Common with Computer Engineering, Computer Science and Engineering and Information Technology

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+ Including 25 marks for viva-voce.

**Semester - Third**

Sr. No.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
3.1	Electronic Instruments and Measurement	4	2	25	25	50	75	3	25	3	100	150
3.2	Principles of Communication Engineering	4	2	25	25	50	75	3	25	3	100	150
3.3	**Digital Electronics	4	2	25	25	50	75	3	25	3	100	150
3.4	Electronic Devices and Circuits	4	2	25	25	50	75	3	25	3	100	150
3.5	Electrical Machines	4	2	25	25	50	75	3	25	3	100	150
3.6	**Computer Programming using C	3	4	25	25	50	75	3	25	3	100	150
# Student Centred Activities (SCA) including Energy Conservation Awareness Camp; Drug Use and Abuse Awareness Camp		-	3	-	25	25	-	-	-	-	-	25
	Total	23	17	150	175	325	450	-	150	-	600	925

\*\* Common with Computer Engineering, Computer Science and Engineering and Information Technology

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### Semester - Fourth

Sr. No.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
4.1	Network Filters and Transmission Lines	3	3	25	25	50	75	3	25	3	100	150
4.2	Communication System	4	3	25	25	50	75	3	25	3	100	150
4.3	Power Electronics	4	3	25	25	50	75	3	25	3	100	150
4.4	**Microprocessors	4	3	25	25	50	75	3	25	3	100	150
4.5	Electronics Design and Simulation Techniques	-	6	-	50	50	-	-	50	3	50	100
4.6	*Generic Skills and Entrepreneurship Development	3	-	25	-	25	75	3	-	-	75	100
# Student Centred Activities(SCA) including Entrepreneurial Awareness Camp		-	4	-	25	25	-	-	-	-	-	25
	Total	18	22	125	175	300	375	-	150	-	525	825

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\*\* Common course with Computer Engineering, Computer Science and Engineering

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### Industrial Training

After examination of 4<sup>th</sup> Semester, the students shall go for training in a relevant industry/field organisation for a minimum period of 6 weeks and shall prepare a diary. It shall be evaluated during 5<sup>th</sup> semester by his/her teacher for 50 marks. The students shall also prepare a report at the end of training and shall present it in a seminar, which will be evaluated for another 50 marks. This evaluation will be done by HOD and lecturer in charge – training in the presence of one representative from training organisation.

### Semester - Fifth

Sr. No.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Int. & Ext.
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
5.1	Audio Video Systems	3	2	25	25	50	75	3	25	3	100	150
5.2	Computer Networks	3	3	25	25	50	75	3	25	3	100	150
5.3	Optical Fiber Communication	4	2	25	25	50	75	3	25	3	100	150
5.4	Digital Communication	4	2	25	25	50	75	3	25	3	100	150
5.5	Micro controllers and Embedded Systems	4	3	25	25	50	75	3	25	3	100	150
5.6	PLCs and SCADA	3	3	25	25	50	75	3	25	3	100	150
Industrial Training		-	-	-	50	50	-	-	50	3	50	100
# Student Centred Activities including Personality Development Camp		-	4	-	25	25	-	-	-	-	-	25
	Total	21	19	150	225	375	450	-	200	-	650	1025

\* There will be a compulsory industrial/educational tour for one week during this semester or after the semester

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### Semester - Sixth

Sr. No.	SUBJECTS	STUDY SCHEME Hrs/Week		MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		Th	Pr	Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
6.1	VLSI System Design	4	3	25	25	50	75	3	25	3	100	150
6.2	Microwave and Radar Engineering	4	3	25	25	50	75	3	25	-	100	150
6.3	Wireless and Mobile Communication	4	3	25	25	50	75	3	25	-	100	150
6.4	**Basics of Management	3	-	25	-	25	75	3	-	-	75	100
6.5	+Elective	4	-	25	-	25	75	3	-	-	75	100
6.6	Project Work	-	8	-	150	150	-	-	50	-	50	200
#	Student Centred Activities(SCA)	-	4	-	25	25	-	-	-	-	-	25
	Total	19	21	125	250	375	375	-	125	-	500	875

\*\* Common course with other diploma programmes

+ Elective-To choose one from the following:

6.5.1 Digital Signal Processing

6.5.2 Medical Electronics

6.5.3 Introduction to Robotics

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