

THAPAR UNIVERSITY

Revised Course Scheme & Syllabus

For

B.E.

Electronics

&

Computer engineering

2016

**ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT
2016**

SEMESTER-I

Sr. No.	Course No.	Title	L	T	P	Cr
1	UCB008	APPLIED CHEMISTRY	3	1	2	4.5
2	UTA007	COMPUTER PROGRAMMING - I	3	0	2	4.0
3	UEC001	ELECTRONIC ENGINEERING	3	1	2	4.5
4	UEN002	ENERGY AND ENVIRONMENT	3	0	0	3.0
5	UMA003	MATHEMATICS-I	3	1	0	3.5
6	UES009	MECHANICS ^	2	1	2 ^	2.5
		TOTAL	17	4	8	22.0

SEMESTER-II

Sr. No.	Course No.	Title	L	T	P	Cr
1	UPH004	APPLIED PHYSICS	3	1	2	4.5
2	UTA009	COMPUTER PROGRAMMING-II	3	0	2	4.0
3	UEE001	ELECTRICAL ENGINEERING	3	1	2	4.5
4	UTA008	ENGINEERING DESIGN - I	2	4	0	4.0
5	UHU003	INTRODUCTION TO PROFESSIONAL COMMUNICATION	2	0	2	3.0
6	UMA004	MATHEMATICS-II	3	1	0	3.5
		TOTAL	16	7	8	23.5

SEMESTER-III

Sr. No.	Course No.	Title	L	T	P	Cr
1	UTA010	ENGINEERING DESIGN PROJECT-II (6 Self-Effort Hours) (Mangonel)	1	0	2	5.0
2	UES012	ENGINEERING MATERIALS	3	1	2	4.5
3	UMA007	NUMERICAL ANALYSIS	3	1	2	4.5
4	UEC405	MICROPROCESSOR AND THEIR APPLICATIONS	3	1	2	4.5
5	UEC403	CIRCUIT ANALYSIS & SYNTHESIS	3	1	0	3.5
6	UEC404	SIGNALS AND SYSTEMS	3	1	2	4.5
		TOTAL	16	5	10	26.5

SEMESTER-IV

Sr. No.	Course No.	Title	L	T	P	Cr
1	UTA011	ENGINEERING DESIGN PROJECT-III (5 Self-Effort Hours) (Buggy)	1	0	4	6
2	UTA002	MANUFACTURING PROCESSES	2	0	3	3.5
3	UMA031	OPTIMIZATION TECHNIQUES	3	1	0	3.5
4	UES010	SOLIDS AND STRUCTURES *	3	1	2	4.5
5	UES011	THERMO-FLUIDS *	3	1	2	4.5
6	UEC301	ANALOG ELECTRONIC CIRCUITS	3	1	2	4.5
		TOTAL	15	4	13	26.5

^ Only one Lab session per semester

* The lab sessions will be on every alternate week

SEMESTER-V

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC401	ANALOG COMMUNICATION SYSTEMS	3	1	2	4.5
2	UEC510	COMPUTER ARCHITECTURE	3	1	0	3.5
3	UCS406	DATA STRUCTURES AND ALGORITHMS (WITH 2 SELF EFFORT HOURS)	3	0	4	6
4	UEC502	DIGITAL SIGNAL PROCESSING	3	1	2	4.5
5	UEC612	DIGITAL SYSTEM DESIGN	3	1	2	4.5
6	UCS303	OPERATING SYSTEMS	3	0	2	4
		TOTAL	18	4	12	27.0

SEMESTER-VI

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC607	DIGITAL COMMUNICATION	3	0	2	4
2	UEC608	EMBEDDED SYSTEMS	2	0	2	3
3	UCS304	INFORMATION MANAGEMENT SYSTEMS (WITH 2 SELF EFFORT HOURS)	3	0	4	6
4	UTA012	INNOVATION AND ENTREPRENEURSHIP (5 SELF EFFORT HOURS)	1	0	2	4.5
5	UEC609	MOS CIRCUIT DESIGN	3	1	2	4.5
6	UEC722	SOFT COMPUTING	3	1	2	4.5
7	UEC797	CAPSTONE PROJECT (STARTS) (4 SELF EFFORT HOURS)	-	-	2	-
		TOTAL	15	2	14	26.5

SEMESTER-VII

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC706	DATA COMMUNICATION AND PROTOCOL	3	1	0	3.5
2	UEC705	IMAGE PROCESSING AND COMPUTER VISION	3	1	0	3.5
3	UEC711	MACHINE LEARNING	3	1	0	3.5
4	UHU005	HUMANITIES FOR ENGINEERS	2	0	2	3
5		ELECTIVE –I	3	0	2	4
6		ELECTIVE –II	3	0	2	4
7	UEC797	CAPSTONE PROJECT (COMPLETION) (8 SELF EFFORT HOURS)	-	-	2	8
		TOTAL	17	3	8	29.5

SEMESTER-VIII

Sr. No.	Course No.	Title	L	T	P	Cr
1	UEC892	PROJECT SEMESTER				20
		OR				
2		ELECTIVE –III	3	1	0	3.5
3		ELECTIVE –IV	2	1	2	3.5
4	UEC893	PROJECT	-	-	#	13
		Total				20
		OR				
5	UEC896	START-UP SEMESTER	0	0	0	20

List of Electives

Department Elective –I

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1	UEC709	FIBER OPTICS COMMUNICATION	3	0	2	4.0
2	UCS608	PARALLEL & DISTRIBUTED COMPUTING	3	0	2	4.0
3	UEC747	ANTENNA & WAVE PROPAGATION	3	0	2	4.0
4	UEC512	LINEAR INTEGRATED CIRCUIT ANALYSIS	3	0	2	4.0
5	UCS523	COMPUTER AND NETWORK SECURITY	3	0	2	4.0

Department Elective –II

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1	UCS503	SOFTWARE ENGINEERING	3	0	2	4.0
2	UEC622	DSP PROCESSORS	3	0	2	4.0
3	UEC748	VIDEO SIGNAL PROCESSING	3	0	2	4.0
4	UCS730	MOBILE APPLICATION DEVELOPMENT	3	0	2	4.0
5	UEC746	WIRELESS COMMUNICATION	3	0	2	4.0

Department Elective –III

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1	UEC854	ASIC AND FPGA	3	1	0	3.5
2	UEC861	CLOUD COMPUTING	3	1	0	3.5
4	UEC860	POWER ELECTRONICS	3	1	0	3.5

Department Elective –IV

Sr. No.	Course No.	Course Name	L	T	P	Cr.
1.	UEC855	SPEECH PROCESSING	2	1	2	3.5
2.	UEC862	IC FABRICATION	3	1	0	3.5
3.	UEC742	MEMS	3	1	0	3.5
4.	UEI844	VIRTUAL INSTRUMENTATION	2	0	3	3.5

Total Credits: 198.0