

KUMARAGURU COLLEGE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Regulation 2018 - B.E ECE - Curriculum

Semester I										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18ENI1201	Fundamentals of Communication -I	Embedded - Theory & Lab	BS	2	0	2	0	3	Nil
2	U18MAI1201	Linear Algebra and Calculus	Embedded - Theory & Lab	HS	3	0	2	0	4	Nil
3	U18CHI1201	Engineering Chemistry	Embedded - Theory & Lab	BS	3	0	2	0	4	Nil
4	U18EEI1202	Electrical Machines and Drives	Embedded - Theory & Lab	ES	3	0	2	0	4	Nil
5	U18CSI1202	Problem Solving and Programming using C	Embedded - Theory & Lab	ES	2	0	2	0	3	Nil
7	U18INI1300	Engineering Clinic 1	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									21	
Total Contact Hours/week									28	

Semester II										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18ENI2201	Fundamentals of Communication-II	Embedded - Theory & Lab	BS	2	0	2	0	3	U18ENI1201
2	U18MAI2201	Advanced Calculus and Laplace Transform	Embedded - Theory & Lab	HS	3	0	2	0	4	Nil
3	U18PHI2201	Engineering Physics	Embedded - Theory & Lab	BS	3	0	2	0	4	Nil
4	U18MEI2201	Engineering Graphics	Embedded - Theory & Lab	BS	2	0	2	0	3	Nil
5	U18CSI2201	Problem Solving and Programming using Python	Embedded - Theory & Lab	ES	2	0	2	0	3	U18CSI1202
6	U18INI2300	Engineering Clinic 2	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									20	
Total Contact Hours/week									27	

Semester III										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18ECT3101	Signals and Systems	Theory	BS	3	1	0	0	4	Nil
2	U18ECI3202	Electron Devices and Circuits	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
3	U18ECI3203	Digital System Design	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
4	U18ECT3004	Electro Magnetic Fields	Theory	PC	3	0	0	0	3	Nil
5	U18ECT3105	Network theory	Theory	PC	3	1	0	0	4	Nil
6	U18INI3300	Engineering Clinic 3	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									22	
Total Contact Hours/week									26	

Semester IV										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18MAT4104	Probability Theory and Random Process	Theory	BS	3	1	0	0	4	Nil
2	U18ECI4201	Digital Signal Processing	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECT3101
3	U18ECI4202	Analog Electronics and Integrated Circuits	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECI3202
4	U18ECT4103	Transmission Lines and Waveguides	Theory	PC	3	1	0	0	4	U18ECT3004
5	U18INI4300	Engineering Clinic 4	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
6	U18.....	Open Elective I	Theory	OE	3	0	0	0	3	Nil
Total Credits									22	
Total Contact Hours/week									26	

Semester V										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18ECI5201	Communication Engineering- I	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECT3101
2	U18ECI5202	Microprocessors and Microcontrollers	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECI3203
3	U18ECI5203	Communication Networks	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
4	U18ECT5004	Control Systems	Theory	PC	3	0	0	0	3	Nil
5	U18ECT5005	Antenna and wave propagation	Theory	PC	3	0	0	0	3	U18ECT4103
6	U18INI5300	Engineering Clinic 5	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									21	
Total Contact Hours/week									26	

Semester VI										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18ECI6201	Communication Engineering- II	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECI5201
2	U18ECI6202	RF and Microwave Communication	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECT4103
3	U18ECI6203	VLSI andHDL Programming	Embedded - Theory & Lab	PC	3	0	2	0	4	U18ECI3203
4	U18.....	Open Elective II	Theory	OE	3	0	0	0	3	Nil
5	U18ECE...	Programme Elective I	Theory	PE	3	0	0	0	3	Nil
6	U18ECE...	Programme Elective II	Theory	PE	3	0	0	0	3	Nil
Total Credits									21	
Total Contact Hours/week									24	

Semester VII										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U18ECT7002	Wireless Communication	Theory	PC	3	0	0	0	3	U18ECI6201
2	U18ECI7203	Optical Communication	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
3	U18ECE...	Programme Elective III	Theory	PE	3	0	0	0	3	Nil
4	U18ECE...	Programme Elective IV	Theory	PE	3	0	0	0	3	Nil
5	U18INT7000	Soft Skills	Theory	HS	3	0	0	0	3	Nil
6	U18ESP7701	Project /Internship	Project only Course	PW	0	0	0	6	3	Nil
Total Credits									19	
Total Contact Hours/week									23	

Semester VIII									
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C
1	U18ESP8701	Project /Internship	Project only Course	PW	0	0	0	24	12
Total Credits									12
Total Contact Hours/week									24

Total Credits									158
----------------------	--	--	--	--	--	--	--	--	-----

List of mandatory courses

S.No	Course Code	Course Title	Course Mode	CT	Sem
1	U18VEP1501	Human Excellence -Personal Values	Lab	HS	1
2	U18VEP2502	Human Excellence-Inter Personal values	Lab	HS	2
3	U17INT4000	Indian Constitution	Theory	MC	4
4	U18VEP3503	Human Excellence-Family Values	Lab	HS	3
5	U18CHT3000	Environmental Science and Engineering	Theory	MC	3
6	U18VEP4504	Human Excellence-Professional Values	Lab	HS	4
7	U18VEP5505	Human Excellence-Social Values	Lab	HS	5
8	U18VEP6506	Human Excellence-National Values	Lab	HS	6
9	U18VEP7507	Human Excellence-Global Values	Lab	HS	7

Programme Electives									
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C
Communication System									
1	U18ECE0001	Cognitive Radio	Theory	PE	3	0	0	0	3
2	U18ECE0002	Satellite Communication	Theory	PE	3	0	0	0	3
3	U18ECE0003	MIMO systems	Theory	PE	3	0	0	0	3
4	U18ECE0004	Information Theory and Coding	Theory	PE	3	0	0	0	3
5	U18ECE0005	GPS and its application	Theory	PE	3	0	0	0	3
Signal Processing									
1	U18ECE0006	Digital Image Processing	Theory	PE	3	0	0	0	3
2	U18ECE0007	Multimedia and Compression	Theory	PE	3	0	0	0	3
3	U18ECE0008	Biomedical Signal Processing	Theory	PE	3	0	0	0	3
4	U18ECE0009	Machine Learning	Theory	PE	3	0	0	0	3
5	U18ECE0010	Statistical Signal processing	Theory	PE	3	0	0	0	3
Communication Networks									
1	U18ECE0011	Adhoc wireless networks.	Theory	PE	3	0	0	0	3
2	U18ECE0012	High speed networks.	Theory	PE	3	0	0	0	3
3	U18ECE0013	Network security	Theory	PE	3	0	0	0	3
4	U18ECE0014	Wireless system and standards	Theory	PE	3	0	0	0	3
5	U18ECE0015	Graph theory and its applications.	Theory	PE	3	0	0	0	3
RF and Antenna									
1	U18ECE0016	RF MEMS	Theory	PE	3	0	0	0	3
2	U18ECE0017	RF System Design	Theory	PE	3	0	0	0	3
3	U18ECE0018	Electromagnetic Interference and Compatibility	Theory	PE	3	0	0	0	3
4	U18ECE0019	Computational Electromagnetics	Theory	PE	3	0	0	0	3
5	U18ECE0020	Smart Antennas	Theory	PE	3	0	0	0	3
VLSI									
1	U18ECE0021	VLSI testing and testability	Theory	PE	3	0	0	0	3
2	U18ECE0022	System design with FPGA	Theory	PE	3	0	0	0	3
3	U18ECE0023	System on Chip	Theory	PE	3	0	0	0	3
4	U18ECE0024	Nano Electronics	Theory	PE	3	0	0	0	3
5	U18ECE0025	Low power VLSI	Theory	PE	3	0	0	0	3
Embedded System									
1	U18ECE0026	Robotics and Automation	Theory	PE	3	0	0	0	3
2	U18ECE0027	Consumer Electronics	Theory	PE	3	0	0	0	3
3	U18ECE0028	Virtual Instrumentation	Theory	PE	3	0	0	0	3
4	U18ECE0029	Real time Embedded Systems	Theory	PE	3	0	0	0	3
5	U18ECE0030	Automotive Electronics	Theory	PE	3	0	0	0	3