

**Department of Electronics and Communication Engineering
Jamia Millia Islamia**

**B. TECH. ELECTRONICS AND COMMUNICATION ENGINEERING COURSE STRUCTURE
UNDER THE CHOICE BASE CREDIT SYSTEM (CBCS)**

Codes for nature of courses

L: Lecture courses
P: Laboratory Based courses
S: Seminar/ Independent Study

Category of Courses

DC: Departmental courses
CBCS: Choice based Credit System

Weight age for Course Evaluation

L Lecture **T** Tutorial **P** Practical **CCA** Continuous Class Assessment
MTE Mid Term Exam

B. TECH. ELECTRONICS AND COMMUNICATION ENGINEERING-II YEAR

Third Semester													
S.No	Course No.	Course Name	Type of Course	Credit	Periods Per week			Examination Scheme (Distribution of Marks)					
					L	T	P	Mid Semester Evaluation			End Semester Evaluation	Total Marks	
								CCA	MTE-1	MTE-2			
01	ECS-301	Engineering Mathematics	-	4	3	1	-	10	15	15	60	100	
02	ECS-302	Analog Electronics-I	-	4	3	1	-	10	15	15	60	100	
03	ECS-303	Circuit Analysis and Synthesis	-	4	3	1	-	10	15	15	60	100	
04	ECS-304	Principles of Measurements and Machines	-	4	3	1	-	10	15	15	60	100	
05	ECS-305	Logic Design	CBCS	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	ECS-310	Analog Electronics-I	-	2	-	-	4	10	10	10	20	50	
07	ECS-311	Circuit Simulation Lab	-	2	-	-	4	10	10	10	20	50	
08	ECS-312	Logic Design	-	2	-	-	4	10	10	10	20	50	
Total				26								650	
Fourth Semester													
01	ECS-401	Analog Electronics-II	-	4	3	1	-	10	15	15	60	100	
02	ECS-402	Signals and Systems	-	4	3	1	-	10	15	15	60	100	
03	ECS-403	Electromagnetic Field Theory	CBCS	4	3	1	-	10	15	15	60	100	
04	ECS-404	Communication Systems	-	4	3	1	-	10	15	15	60	100	
05	ECS-405	DSCP	-	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
06	ECS-410	Analog Electronics-II	-	2	-	-	4	10	10	10	20	50	
07	ECS-411	Communication Engg.	-	2	-	-	4	10	10	10	20	50	
Total				24								Total	600

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B. TECH. ELECTRONICS AND COMMUNICATION ENGINEERING -III YEAR

Fifth Semester													
S.No	Course No.	Course Name	Type of Course	Credit	Periods Per week			Examination Scheme (Distribution of Marks)					
					L	T	P	Mid Semester Evaluation			End Semester Evaluation	Total Marks	
								CCA	MTE-1	MTE-2			
01	ECS-501	Active Filters and Signal Processing	-	4	3	1	-	10	15	15	60	100	
02	ECS-502	Computer Architecture	CBCS	4	3	1	-	10	15	15	60	100	
03	ECS-503	Control Systems	-	4	3	1	-	10	15	15	60	100	
04	ECS-504	Digital Circuits and Systems	-	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB.)													
05	ECS-511	Instrumentation Lab	-	2	-	-	4	10	10	10	20	50	
06	ECS-512	Digital Circuits Lab	-	2	-	-	4	10	10	10	20	50	
Total				20								500	
Sixth Semester													
01	ECS-601	Microprocessor	CBCS	4	3	1	-	10	15	15	60	100	
02	ECS-602	Digital Signal Processing	-	4	3	1	-	10	15	15	60	100	
03	ECS-603	Antenna and Wave Propagation	-	4	3	1	-	10	15	15	60	100	
04	ECS-604	Data Communication and Computer Networking	-	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB/SEMINAR)													
05	ECS-610	Microprocessor Lab	-	2	-	-	4	10	10	10	20	50	
06	ECS-611	DSP Lab	-	2	-	-	4	10	10	10	20	50	
07	ECS-612	Seminar	-	2	-	-	4	10	10	10	20	50	
Total				22								Total	550

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P: Laboratory Based courses

D: Project based courses leading to desertion (e.g. Major, Minor Project, Training)

S: Seminar/ Independent Study

Category of Courses

CC: Departmental courses

CBCS: Choice based Credit System

Weight age for Course Evaluation

L Lecture **T** Tutorial **P** Practical **CCA** Continuous Class Assessment

MTE Mid Term Exam

B. TECH. ELECTRONICS AND COMMUNICATION ENGINEERING -IV YEAR

Seventh Semester													
S.No	Course No.	Course Name	Type of Course	Credit	Periods Per week			Examination Scheme (Distribution of Marks)				Total Marks	
					L	T	P	Mid Semester Evaluation			End Semester Evaluation		
								CCA	MTE -1	MTE -2			
01	ECS-701	VLSI Design	-	4	3	1	-	10	15	15	60	100	
02	ECS-702	Wireless Communication	-	4	3	1	-	10	15	15	60	100	
03	ECS-703	Embedded Systems	CBCS	4	3	1	-	10	15	15	60	100	
04	ECS-704	Digital Communication	-	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB./MINOR PROJECT)													
05	ECS-711	VLSI Lab	-	2	-	-	4	10	10	10	20	50	
06	ECS-712	Minor Project	-	4	-	-	12	20	20	20	40	100	
07	ECS-713	Industrial Training*	-	1	-	-	-	15	-	-	10	25	
Total				23					575				
Eighth Semester													
01	ECS-801	Microwave Engineering	CBCS	4	3	1	-	10	15	15	60	100	
02	ECS-802	Optical Fiber Communication	-	4	3	1	-	10	15	15	60	100	
PRACTICAL (LAB./MAJOR PROJECT)													
03	ECS-811	Microwave Engineering Lab	-	2	-	-	4	10	10	10	20	50	
04	ECS-812	Major Project	-	12	-	-	16	60	60	60	120	300	
Total				22					Total				550

*Students will undergo the Industrial Training of minimum 2-weeks during summer vacation after the examinations of 6th semester are over. And submit a report till the end of VII Semester, practical exam of the same will be held along with the practical exams of VII sem.

Total Number of Credits including 1st year = 189 (137+52)