CURRICULUM

B.Tech. Electronics and Communication Engineering (EDM) with specialization in Design and Manufacturing

1	0	
(According to 30th	Senate meeting held on 22 nd March 2016)	

SEMESTER	R 1				
Courses	I	P	C	Category	Code
Calculus	3	0	3	BSC	MAT104T
Engineering Mechanics	3	0	3	BSC	PHY108T
Computational Engineering /	3	0	3	BEC /	COM105T /
Basic Electrical and Electronics Engineering				BEC	ELE103T
Concepts in Engineering Design/	3	0	3	DES /	DES101T /
Science and Engineering of Materials				BEC	INT108T
English for Communication	2	0	2	HMC	INT107T
Earth, Environment & Design/	2		P/F	DES /	DES103T /
Professional Ethics for Engineers				HMC	MAN102T
Engineering Skills Practice	0	3	2	BEC	INT110P
Materials & Mechanics Practice	0	3	2	BSC	PHY109P
Computational Engineering Practice/	0	3	2	BEC /	COM105P /
Measurement & Data Analysis Practice				BSC	INT111P
Engineering Graphics	1	3	3	BEC	INT109P
Total			23		
SEMESTER	R 2				l
Courses	I	P	C	Category	Code
Differential Equations	3	0	3	BSC	MAT105T
Engineering Electromagnetics	3	0	3	BSC	PHY107T
Basic Electrical and Electronics Engineering/	2	0	_	BEC /	ELE103T /
Computational Engineering	3	0	3	BEC	COM105T
Science and Engineering of Materials /				BEC /	INT108T /
Concepts in Engineering Design	3	0	3	DES	DES101T
Design History	2	0	2	DES	DES102T
Professional Ethics for Engineers/				HMC /	MAN102T /
Earth, Environment & Design	2	0	P/F	DES	DES103T
Measurement & Data Analysis Practice/				BSC /	INT111P/
Computational Engineering Practice	0	3	2	BEC	COM105P
Industrial Design Sketching	0	3	2	DES	DES104P
Engineering Electromagnetics Practice	0	3	2	BSC	PHY107P
Design Realization	0	3	2	DES	DES105P
Total		3	22		
SEMESTER	R 3				<u> </u>
Courses	I	P	C	Category	Code
Linear Algebra	3	0	3	BSC	MAT204T
Systems Thinking for Design	2	0	2	DES	DES201T
Engineering Economics	2	0	2	HMC	MAN201T
Digital Logic Design	3	0	3	PEC	ELE217T
Signals and Systems	3	0	3	PEC	ELE218T
Analog Circuits	0	3	3 2	PEC PEC	ELE223T
Analog Circuits Practice DLD Practice	0	3	2	PEC	ELE223P ELE217P
	0	3		TEC	
Total			20		

SEMESTER 4					
Courses	I	P	С	Category	Code
Probability Theory	3	0	3	BSC	MAT205T
Designing Intelligent Systems	2	0	2	DES	DES203T
Sociology of Design	2	0	2	HMC	MAN202T
Control Systems	3	0	3	PEC	ELE221T
Digital Signal Processing	3	0	3	PEC	ELE222T
Power Electronics	3	0	3	PEC	ELE219T
Data Structures and Algorithms Practice	1	3	3	PEC	COM208P
Electrical Drives Practice	1	3	3	PEC	ELE220P
Digital Signal Processing Practice	0	3	2	PEC	ELE222P
Total			24		
SEMESTER 5				•	
Courses	I	P	C	Category	Code
Sustainable Design	2	0	2	DES	DES301T
Entrepreneurship and Management Functions	2	0	2	HMC	MAN301T
Information Theory and Coding	3	0	3	PEC	ELE319T
Micro Processors and Computer Architecture	3	0	3	PEC	ELE315T
Analog and Digital Communication	3	0	3	PEC	ELE313T
Sensing and Instrumentation Practice	0	3	2	PEC	ELE314P
Micro Processors and Micro Controllers Practice	0	3	2	PEC	ELE315P
Analog and Digital Communication Practice	0	3	2	PEC	ELE313P
Electronic Manufacturing and Prototyping	1	3	3	PEC	ELE302A
Total			22		
SEMESTER 6)				
Courses	I	P	C	Category	Code
Design for Quality and reliability	2	0	2	DES	DES302T
	2 2		2 2		
Design for Quality and reliability Product Management VLSI Design	2 2 3	0 0 0	2 2 3	DES HMC PEC	DES302T MAN303T ELE311
Design for Quality and reliability Product Management VLSI Design Data Communication Networks	2 2 3 3	0 0 0	2 2 3 3	DES HMC PEC PEC	DES302T MAN303T ELE311 ELE316T
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice	2 2 3	0 0 0 0 0 3	2 2 3 3 2	DES HMC PEC PEC PEC	DES302T MAN303T ELE311 ELE316T ELE311P
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design	2 2 3 3 0 1	0 0 0 0 3 3	2 2 3 3 2 3	DES HMC PEC PEC PEC PEC	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice	2 2 3 3 0 1 0	0 0 0 0 3 3 3	2 2 3 3 2 3 2	DES HMC PEC PEC PEC PEC PCD	DES302T MAN303T ELE311 ELE316T ELE311P
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design	2 3 3 0 1 0 3	0 0 0 0 3 3	2 3 3 2 3 2 3	DES HMC PEC PEC PEC PEC	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice	2 2 3 3 0 1 0	0 0 0 0 3 3 3	2 2 3 3 2 3 2 3 3	DES HMC PEC PEC PEC PEC PCD	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total	2 2 3 3 0 1 0 3 3	0 0 0 0 3 3 3 0	2 3 3 2 3 2 3	DES HMC PEC PEC PEC PEC PCD ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7	2 3 3 0 1 0 3 3	0 0 0 0 3 3 3 0	2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 2 3 2 3	DES HMC PEC PEC PEC PEC PEC PCD ELE ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses	2 2 3 3 0 1 0 3 3	0 0 0 0 3 3 3 0 0	2 2 3 3 2 3 2 3 2 3 2 2 3 C	DES HMC PEC PEC PEC PEC PCD ELE ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship	2 2 3 3 0 1 0 3 3 3	0 0 0 0 3 3 3 0 0	2 2 3 3 2 3 2 3 2 3 2 5 C	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems	2 2 3 3 0 1 0 3 3 3	0 0 0 0 3 3 3 0 0	2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective — I	2 3 3 0 1 0 3 3 3	0 0 0 0 3 3 3 0 0	2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective I Design Project	2 2 3 3 0 1 0 3 3 3	0 0 0 0 3 3 3 0 0	2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective I Design Project Total	2 2 3 3 0 1 0 3 3 3 0 1 0 3 3 3	0 0 0 0 3 3 3 0 0	2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective I Design Project Total SEMESTER 8	2 3 3 0 1 0 3 3 3 1 0 3 3 3	0 0 0 0 3 3 3 0 0	2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 5 5 1 1 6	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE DES	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T DES401
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective – I Design Project Total SEMESTER 8 Courses	2 3 3 0 1 0 3 3 3 0 1 0 3 3 3	0 0 0 0 3 3 3 0 0 0	2 2 3 3 2 3 2 3 23 C 5 3 3 5 16	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE DES	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective – I Design Project Total SEMESTER 8 Courses Elective – III	2 2 3 3 0 1 0 3 3 3 0 1 0 3 3 0 1 0 1 0 1 0	0 0 0 0 3 3 3 0 0 0 0 P - 0 6	2 2 3 3 2 3 2 3 2 3 2 3 2 5 16	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE DES Category ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T DES401
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective – I Design Project Total SEMESTER 8 Courses Elective – III Free Elective-II	2 2 3 3 0 1 0 3 3 3 0 1 0 3 3 0 1 0 3 3 0 1 0 1	0 0 0 0 3 3 3 0 0 0 P - 0 6	2 2 3 3 2 3 2 3 2 3 2 3 2 5 16	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE DES Category ELE ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T DES401 Code
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective – I Design Project Total SEMESTER 8 Courses Elective – III Free Elective-II Innovation Management	2 2 3 3 0 1 0 3 3 3 0 1 0 3 3 0 1 0 3 3 0 1 0 0 1 0 0 1 0 0 1 0 1	0 0 0 0 3 3 3 0 0 0 0 P - 0 6	2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 5 5 16	DES HMC PEC PEC PEC PEC PEC PCD ELE ELE ELE Category PCD PEC ELE DES Category ELE LE DES	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T DES401 Code MAN407T
Design for Quality and reliability Product Management VLSI Design Data Communication Networks VLSI Design Practice Embedded System Design Product Design Practice Elective I Elective II Total SEMESTER 7 Courses Internship Mechanical Design of Electronic Systems Free Elective – I Design Project Total SEMESTER 8 Courses Elective – III Free Elective-II	2 2 3 3 0 1 0 3 3 3 0 1 0 3 3 0 1 0 3 3 0 1 0 1	0 0 0 0 3 3 3 0 0 0 P - 0 6	2 2 3 3 2 3 2 3 2 3 2 3 2 5 16	DES HMC PEC PEC PEC PEC PCD ELE ELE Category PCD PEC ELE DES Category ELE ELE	DES302T MAN303T ELE311 ELE316T ELE311P ELE504A INT303 Code INT404 INT405T DES401 Code

^{*}Internship is for a period of 5 months