

JNTU-GV
Course Structure and Syllabus For
M.Tech
(VLSI (57), VLSI Design(72), VLSI System Design(61))

I – Semester

S. No.	Course Code	Course Title	L	T	P	C
1	M255701	CMOS Analog Integrated Circuit Design	3	1	0	4
2	M255702	CMOS Digital Integrated Circuit Design	3	1	0	4
3	M255703	Advanced Digital System Design	3	1	0	4
	M255704	Micro Chip Fabrication Technique				
4	M255705	Nano Electronic Material Devices	3	1	0	4
	M255706	Semiconductor Memories/ Digital Design Through HDL				
	M255707	Hardware Description Language				
5	M255708	VLSI Architecture	3	1	0	4
	M255709	Low Power VLSI				
	M255710	CAD for VLSI				
	M255711	System Design Using Embedded Processors				
6	M255712	Analog Integrated Circuit Design Lab	0	1	2	2
7	M255713	Digital Integrated Circuit Design Lab	0	1	2	2
8	M255714	Seminar-I	0	0	2	1
		TOTAL	15	7	6	25

II – Semester

S. No.	Course Code	Course Title	L	T	P	C
1	N255701	CMOS Mixed Signal Design	3	1	0	4
2	N255702	Physical Design verification	3	1	0	4
3	N255703	VLSI TESTING & TESTABILITY	3	1	0	4
4	N255704	VLSI Design Verification	3	1	0	4
	N255705	MEMS and Microsystems				
	N255706	FPGA Based System Design				
	N255707	VLSI Signal Processing				
5	N255708	VLSI Interconnects	3	1	0	4
	N255709	CMOS RF Integrated Circuit Design				
	N255710	Quantum Computing				
	N255711	Hardware Software Co-design				
6	N255712	CMOS Mixed Signal Circuit Design Lab	0	1	2	2
7	N 255713	Physical Design Verification Lab	0	1	2	2
8	N 255714	Seminar-II	0	0	2	1
		TOTAL	15	7	6	25

III Semester

S. No.	Course Code	Course Title	L	T	P	C
1	P255701	Research Methodology and IPR / Swayam 12 week MOOC course – RM&IPR	3	0	0	2
2	P255702	Summer Internship/ Industrial Training (8- 10 weeks)	-	-	-	2
3	P255703	Dissertation Part – A	-	-	20	10
		TOTAL	3	-	20	14

IV Semester

S. No.	Course Code	Course Title	L	T	P	C
1	O255701	Dissertation Part – B	-	-	32	16
		TOTAL	-	-	32	16