

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING, MANIPAL UNIVERSITY JAIPUR

M. Tech. in VLSI & EMBEDDED SYSTEM DESIGN (VESD)

Year	FIRST SEMESTER						SECOND SEMESTER					
	Sub. Code	Subject Name	L	T	P	C	Sub. Code	Subject Name	L	T	P	C
I	MAS6102	Probability, Random Variables & Stochastic Process	4	0	0	4	ECE6204	Advanced Microcomputer Systems & interfacing	4	0	0	4
	DR6001	Research Methodology	3	0	0	3	ECE6205	VLSI Physical Design & Automation	4	0	0	4
	ECE6104	Embedded Systems	4	0	0	4	ECE6206	Analog CMOS IC Design	4	0	0	4
	ECE6105	Advance Digital VLSI Design	4	0	0	4	ECE62XX	Program Elective II	3	0	0	3
	ECE6106	Digital system design using Verilog	4	0	0	4	ECE62XX	Program Elective III	3	0	0	3
	ECE61XX	Program Elective I	3	0	0	3	*** **	Open Elective	3	0	0	3
	ECE6132	Embedded System Design Lab - I	0	0	2	1	ECE6232	Embedded System Design Lab - II	0	0	2	1
	ECE6133	System Design using FPGA Lab	0	0	2	1	ECE6234	IC Design Lab	0	0	2	1
	ECE6171	Seminar	0	0	2	1	ECE6233	Minor Project	0	0	4	2
			22	0	6	25			21	0	8	25
	Total Contact Hours (L + T + P)		28			Total Contact Hours (L + T + P) + OE			26+ 3 = 29			
II	THIRD & FOURTH SEMESTER											
	ECE7270	Dissertation							0	0	0	30
									0	0	0	30
	Total Contact Hours (L + T + P) + OE								0			
Program Elective			14. ECE6260 Machine Learning					Open Elective				
1. ECE6148 VLSI Process Technology			15. ECE6261 Embedded Wireless Sensor Networks					1. ECE6081 Introduction to CMOS VLSI				
2. ECE6149 FPGA Architectures & Applications			16. ECE6262 Network on Chip									
3. ECE6150 High Speed IC Design			17. ECE6263 Embedded Networks & Protocol									
4. ECE6151 Advanced Sensor and Actuators			18. ECE6264 VLSI Signal Processing									
5. ECE6152 Cryptography and Crypto-Chip Design			19. ECE6265 Nanoelectronic Devices									
6. ECE6153 ARM based systemdevelopment			20. ECE6266 VLSI Interconnects									
7. ECE6154 Medical Electronics & Instrumentation			21. ECE6267 MOS Device Modelling									
8. ECE6155 Microcontroller and embedded systems - I			22. ECE6268 Robotics & Control									
9. ECE6255 VLSI Testing and Verification			23. ECE6269 Autotronics									
10. ECE6256 CAD Tools for VLSI			24. ECE6270 Industrial Automation									
11. ECE6257 System on Chip Design			25. ECE6271 MEMS									
12. ECE6258 Mixed Signal IC Design			26. ECE6272Microcontroller and embedded systems - II									
13. ECE6259 Low Power VLSI Design												