

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							Open Elective					
1. ECE6148 VLSI Process Technology							1. ECE6081 Introduction to CMOS VLSI					
2. ECE6149 FPGA Architectures & Applications												
3. ECE6150 High Speed IC Design												
4. ECE6151 Advanced Sensor and Actuators												
5. ECE6152 Cryptography and Crypto-Chip Design												
6. ECE6153 ARM based system development												
7. ECE6154 Medical Electronics & Instrumentation												
8. ECE6155 Microcontroller and embedded systems - I												
9. ECE6255 VLSI Testing and Verification												
10. ECE6256 CAD Tools for VLSI												
11. ECE6257 System on Chip Design												
12. ECE6258 Design and Verification using SystemVerilog												
13. ECE6259 Low Power VLSI Design												
14. ECE6260 Machine Learning												
15. ECE6261 Embedded Wireless Sensor Networks												
16. ECE6262 Network on Chip												
17. ECE6263 Embedded Networks & Protocol												
18. ECE6264 VLSI Signal Processing												
19. ECE6265 Nanoelectronic Devices												
20. ECE6266 VLSI Interconnects												
21. ECE6267 MOS Device Modelling												
22. ECE6268 Robotics & Control												
23. ECE6269 Autotronics												
24. ECE6270 Industrial Automation												
25. ECE6271 MEMS												
26. ECE6272 Microcontroller and embedded systems - II												