

ECE/579
9/4/24

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

M.Tech VLSI & Embedded System Design

SCHEME

First Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
VED 101	VLSI Design	3	-	-	3
VED 102	Computer Aided Design of Digital Systems	3	-	-	3
VED 103	Embedded Systems	3	-	-	3
	Department Elective-1	3	-	-	3
	Department Elective-2	3	-	-	3
VED 104	Lab I	-	-	2	1
	Embedded System Design				
VED 105	Lab II	-	-	2	1
	VLSI front end Design				
VED 106	Seminar-1	-	-	2	1
VED 107	Minor Project-1 (Self Learning)	-	-	-	2
Total Hours: 21		15	-	6	20
Total Credits: 20					

Second Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
VED 201	VLSI Technology	3	-	-	3
VED 202	Testing of VLSI circuits	3	-	-	3
	Department Elective-3	3	-	-	3
	Department Elective-4	3	-	-	3
	Open Elective	3	-	-	3
VED 203	Lab III	-	-	2	1
	VLSI Back end Design				
VED 204	Lab IV	-	-	2	1
	System Modelling				
VED 205	Seminar-II	-	-	2	1
VED 206	Minor Project-2 (Self Learning)	-	-	2	2
Total Hours: 23		18	-	8	20
Cumulative Credits: 40					

A. S. K. S.
8/4/2024

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Dr. R.N. Yadav
29/04/24

डॉ. आर.एन. यादव
Dr. R.N. Yadav

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Maulana Azad National Institute of Technology Bhopal 462003

Third Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
VED 301	Dissertation Phase –I	-	-	40	20
Total Hours: 40		Cumulative Credits: 60			Total Semester Credits 20

Fourth Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
VED 401	Dissertation Phase –II	-	-	40	20
Total Hours: 40		Cumulative Credits: 80			Total Semester Credits 20

List of Electives-Departmental

VED 501	Low power VLSI Design
VED 502	Digital System Design
VED 503	Mixed Signal Design
VED 504	Design for Testability
VED 505	Design of Semiconductor Memories
VED 506	CMOS Active Filter Design
VED 507	Design of Analog IC
VED 508	CMOS RF Circuit Design
VED 509	Device Modeling and Simulation
VED 510	Physical Design Automation
VED 511	High VEdeed System Design
VED 512	Electronic Packaging and Manufacturing
VED 513	VLSI Design for signal processing
VED 514	Nano Technology
VED 515	Machine Learning for VLSI
VED 516	Data compression and Cryptography
VED 517	Research Methodology

List of Electives-Open

VED 601	Optimization Techniques
VED 602	Fuzzy Computations
VED 603	Neural Networks
VED 604	Queuing Theory
VED 605	Biomedical Signal Processing
VED 606	Operation Research
VED 607	Internet of Things (IoT)
VED 608	Applied Machine Learning and Deep Learning

NPTEL Course/ SWAYAM
Course(s)

A. Subhakar
8/4/2024

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Dr. R.N.Yadav