

SCHEME OF TEACHING AND EXAMINATION  
M.TECH. - VLSI DESIGN & EMBEDDED SYSTEMS

**I SEMESTER**

Course Code	Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks
			Lecture	Practical / Field Work / Assignment		I.A.	Exam	
08LVS11	08EC021	CMOS VLSI Design	4	2	3	50	100	150
08LVS12	08EC082	VLSI Systems & Architecture	4	2	3	50	100	150
08LVS13	08EC037	Embedded Systems Design	4	2	3	50	100	150
08LVS14	08EC046	Linear Algebra	4	2	3	50	100	150
08LVS15	08ECxxx	Elective-I	4	2	3	50	100	150
08LVS16		Seminar	--	3	--	50	--	50
<b>Total</b>			<b>20</b>	<b>13</b>	<b>15</b>	<b>300</b>	<b>500</b>	<b>800</b>

**ELECTIVE – I**

08LVS151	08EC083	VLSI Technology	08LVS153	08EC032	Digital System Design Using VHDL
08LVS152	08EC012	ASIC Design			

1

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**II SEMESTER**

Course Code	Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks
			Lecture	Practical / Field Work / Assignment		I.A.	Exam	
08LVS21	08EC025	Design of analog & mixed mode VLSI Circuits	4	2	3	50	100	150
08LVS22	08EC070	Real Time Embedded Systems	4	2	3	50	100	150
08LVS23	08EC047	Low Power VLSI Design	4	2	3	50	100	150
08LVS24	08EC078	Testing & Verification of VLSI Circuits	4	2	3	50	100	150
08LVS25	08ECxxx	Elective-II	4	2	3	50	100	150
		*Project Phase-I (6 week Duration)						
08LVS26		Seminar	--	3	--	50	--	50
<b>Total</b>			<b>20</b>	<b>13</b>	<b>15</b>	<b>300</b>	<b>500</b>	<b>800</b>

**ELECTIVE – II**

08LVS251	08EC027	Design of VLSI system	08LVS253	08EC007	Advanced Embedded System Design
08LVS252	08EC010	Algorithms for VLSI Design Automation			

\* Between the II Semester and III Semester. After availing a vocation of 2 weeks.

2

SCHEME OF TEACHING AND EXAMINATION  
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**III SEMESTER**

Course Code	Subject Code	Subject	No. Of Hrs./Week		Duration of Exam in Hours	Marks for		Total Marks
			Lecture	Practical / Field Work		I.A.	Exam	
08LVS31	08EC020	CMOS RF Circuit Design	4	2	3	50	100	150
08LVS32	08ECxxx	Elective-III	4	2	3	50	100	150
08LVS33	08ECxxx	Elective-IV	4	2	3	50	100	150
		Project Phase-II		*				
08LVS34		Evaluation of Project Phase – I	–	3	–	50	–	50
<b>Total</b>			<b>12</b>	<b>09</b>	<b>09</b>	<b>200</b>	<b>300</b>	<b>500</b>

**ELECTIVE – III**

08LVS311	08EC041	Hardware-Software Co-design
08LVS312	08EC077	Synthesis & Optimization of Digital Circuits
08LVS313	08EC019	CAD Tools for VLSI Design

**ELECTIVE – IV**

08LVS321	08EC009	Advances in VLSI Design
08LVS322	08EC071	RF & Microwave Circuit Design
08LVS323	08EC081	VLSI Sub-System Design

3

SCHEME OF TEACHING AND EXAMINATION  
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**IV SEMESTER**

Course Code	Subject Code	Subject	No. Of Hrs./Week		Duration of the Exam in Hours	Marks for		Total Marks
			Lecture	Practical / Field Work		I.A.	Exam	
08LVS41		Evaluation of Project Phase – II	-	3	-	50	-	50
08LVS42		Evaluation of Project work	-	3	-	50	-	50
08LVS43		Project Work Evaluation & Viva-Voce	-	-	3	–	200	200
<b>Total</b>			<b>-</b>	<b>06</b>	<b>03</b>	<b>100</b>	<b>200</b>	<b>300</b>
<b>Grand Total (I to IV Sem.) : 2400</b>								

Note: Project work shall be continuously evaluated for phase I, phase II and after completion of the project.

4