

**GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY**

NH-16, CHAITANYA KNOWLEDGE CITY, RAJAHMUNDRY-533296

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING****SPECIALIZATION: VLSI & ES****COURSE STRUCTURE-R14****I SEMESTER**

S.No	SUBJECT CODE	SUBJECT	Periods per week			C	Scheme of Examination Max.Marks		
			T	P	D		Int.	Ext.	Total
1	14242101	Microcontroller for Embedded System Design	4	-	-	3	40	60	100
2	14242102	CMOS Analog IC Design	4	-	-	3	40	60	100
3	14242103	CPLD and FPGA Architecture and Application	4	-	-	3	40	60	100
4	14242104	VLSI Technology and Design	4	-	-	3	40	60	100
5	14242161(A) 14242161(B) 14242161(C)	<b>Elective I</b> 1.Digital System Design 2.Soft Computing Techniques 3. Hardware Software Co-Design	4	-	-	3	40	60	100
6	14242162(A) 14242162(B) 14242162(C)	<b>Elective II</b> 1. CMOS Digital IC Design 2. Advanced Operating Systems 3.Network Security and Cryptography	4	-	-	3	40	60	100
7	14242111	<b>Laboratory</b> VLSI Laboratory	-	3	-	2	40	60	100
		<b>TOTAL</b>	<b>24</b>	<b>3</b>	<b>-</b>	<b>20</b>	<b>280</b>	<b>420</b>	<b>700</b>

**T-THEORY P-PRACTICAL D-DRAWING C-CREDITS Int.-INTERNAL Ext.-EXTERNAL**

## II-SEMESTER

S.No	SUBJECT CODE	SUBJECT	Periods per week			C	Scheme of Examination Max.Marks		
			T	P	D		Int.	Ext.	Total
1	14242201	Embedded –C	4	-	-	3	40	60	100
2	14242202	Embedded Real Time Operating Systems	4	-	-	3	40	60	100
3	14242203	CMOS Mixed Signal Circuit Design	4	-	-	3	40	60	100
4	14242204	Design for Testability	4	-	-	3	40	60	100
5	14242263(A) 14242263(B) 14242263(C)	<b>Elective III</b> 1.DSP Processor and Architecture 2.System on Chip Design 3.VLSI Signal Processing	4	-	-	3	40	60	100
6	14242264(A) 14242264(B) 14242264(C)	<b>Elective IV</b> 1. Low Power VLSI Design 2. Micro Electro Mechanical Systems (MEMS) Design 3.Semiconductor Memory Design and Testing	4	-	-	3	40	60	100
7	14242211	<b>Laboratory</b> Advanced Communication Laboratory	4	3	-	2	40	60	100
		<b>TOTAL</b>	<b>24</b>	<b>3</b>	<b>-</b>	<b>20</b>	<b>280</b>	<b>420</b>	<b>700</b>

T-THEORY P-PRACTICAL D-DRAWING C-CREDITS Int.-INTERNAL Ext.-EXTERNAL

## III SEMESTER

Sl. No	SUBJECT CODE	SUBJECT	Periods per week			C	Scheme of Examination Max.Marks		
			T	P	D		Int.	Ext.	Total
1	14242381	Seminar -I	1	-	-	2	50	-	50
2	14242341	Project work -I	-	-	-	18	-	-	-
		TOTAL	1	-	-	20	50	-	50

T-THEORY P-PRACTICAL D-DRAWING C-CREDITS Int.-INTERNAL Ext.-EXTERNAL

## IV SEMESTER

Sl. No	SUBJECT CODE	SUBJECT	Periods per week			C	Scheme of Examination Max. Marks		
			T	P	D		Int.	Ext.	Total
1	14242481	Seminar -II	1	-	-	2	50	-	50
2	14242441	Project work -II	-	-	-	18	-	-	-
		TOTAL	1	-	-	20	50	-	50

**T-THEORY P-PRACTICAL D-DRAWING C-CREDITS Int.-INTERNAL Ext.-EXTERNAL**

**Elective I**

14242161(A) - Digital System Design

14242161(B) - Soft Computing Techniques

14242161(C) - Hardware Software Co-Design

**Elective II**

14242162(A) - CMOS Digital IC Design

14242162(B) - Advanced Operating Systems

14242162(C) - Network Security and Cryptography

**Elective III**

14242263(A) - DSP Processor and Architecture

14242263(B) - System on Chip Design

14242263(C) - VLSI Signal Processing

**Elective IV**

14242264(A) - Low Power VLSI Design

14242264(B) - Micro Electro Mechanical Systems (MEMS) Design

14242264(C) - Semiconductor Memory Design and Testing