

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

M.Tech - VLSI & Embedded Systems Course Structure: (2020-21)

I YEAR I SEMESTER

Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1		PCC	RTL Simulation and Synthesis with PLDs	3	0	0	3			
2		PCC	Microcontrollers Programmable Digital Signal Processors	3	0	0	3			
3		PEC	Professional Elective – I a. VLSI Technology and Design b. VLSI Signal Processing c. CAD of Digital System	3	0	0	3			
4		PEC	Professional Elective – II a. Programming Languages for Embedded Systems b. Advanced Computer Architecture c. Embedded System Design	3	0	0	3			
5		MC	Research Methodology	2	0	0	2			
6		AC	Audit Course -1	2	0	0	0			
7		PCC	RTL Simulation and Synthesis with PLDs Lab	0	0	4	2			
8		PCC	Microcontrollers and Programmable Digital Signal Processors Lab	0	0	4	2			
TOTAL				16	0	8	18			

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 (University Nominee)

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 (Subject Expert)

S. Surya Sankar
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 (Industry Expert)

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 Dr. B. Srinivas Raja
 (Chairman, BOS)

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 Dr. S. V. R. K. Rao
 (BOS Member)

S. Sandip Swarnakar
 Dr. Sandip Swarnakar
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B. Biswaranjan Barik
 Mr. Biswaranjan Barik
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G. V. Vinod
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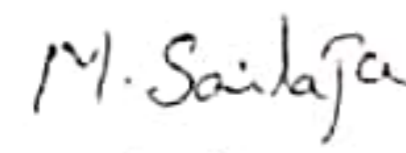
M. M. Saritha Devi
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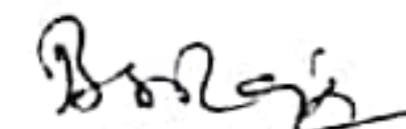
I YEAR II SEMESTER

Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1		PCC	Analog & Digital CMOS VLSI Design	3	0	0	3			
2		PCC	Real Time Operating Systems	3	0	0	3			
3		PEC	Professional Elective – III	3	0	0	3			
			a. System Design with Embedded Linux							
			b. Communication Buses & Interfaces							
			c. Hardware Software Co-Design							
4		PEC	Professional Elective – IV	3	0	0	3			
			a. Physical Design Automation							
			b. SoC Design							
			c. Low Power VLSI Design							
5		AC	Audit Course – 2	2	0	0	0			
6		PCC	Analog & Digital CMOS VLSI Design Lab	0	0	4	2			
7		PCC	Real Time Operating Systems Lab	0	0	4	2			
8		ESC	Mini Project	0	0	4	2			
TOTAL				14	0	12	18			

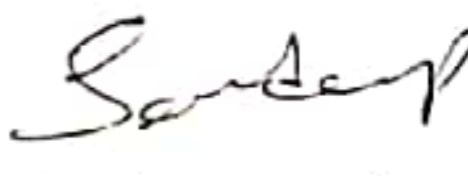

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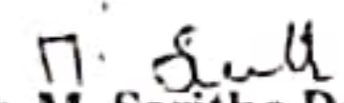

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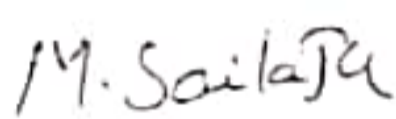
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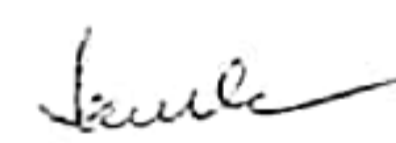
II YEAR I SEMESTER

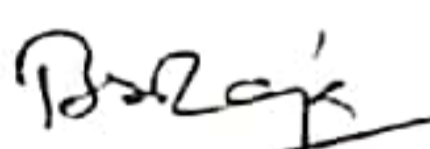
Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1		PEC / MOOCS*	Professional Elective – V	3	0	0	3			
			a. IOT and its Applications b. Design for Testability c. Artificial Intelligence							
2		OEC / MOOCS*	a. Composite Materials b. Cost Management of Engineering Projects c. Machine Learning	3	0	0	3			
			d. Cyber Security e. Energy Audit Conservation and Management f. Utilization of Electrical Energy g. Operations Research h. Nano Technology							
3		PR	Dissertation – I/Industrial Project (to be continued and evaluated next sem)	0	0	20	10			
TOTAL				6	0	20	16			

*Students going for Industrial Project/Thesis will complete these courses through MOOCs.

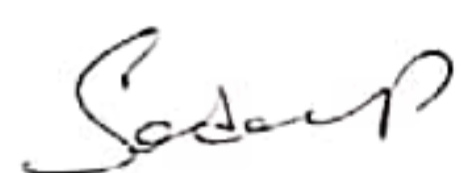

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				L	T	P		Int.	Ext.	Total
1		PR	Project/Dissertation – II	0	0	32	16			

Audit Course 1&2:

1. English for Research Paper Writing
2. Disaster Management
3. Value Education
4. Constitution of India
5. Pedagogy Studies
6. Stress Management by Yoga

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