



M.Tech. Digital Electronics & Communication Systems (DECS)

Semester-I							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D41101	Advanced Digital System Design	PC	3	0	0	3
2.	21D41102	Wireless and Mobile Communications	PC	3	0	0	3
3.	21D41103a	Program Elective– 1	PE	3	0	0	3
	21D41103b	a. Design of Fault Tolerant Systems					
	21D41103c	b. CMOS Digital IC Design					
		c. Fuzzy Systems and Neural Networks					
4.	21D41104a	Program Elective– 2	PE	3	0	0	3
	21D41104b	a. Coding Theory and Techniques					
	21D41104c	b. Advanced Digital Signal Processing					
		c. 5G Communications					
5.	21D41105	Advanced Digital System Design Lab	PC	0	0	4	2
6.	21D41106	Wireless and Mobile Communications Lab	PC	0	0	4	2
7.	21D11107	Research Methodology and IPR	MC	2	0	0	2
8.	21D11108a	Audit Course – I	AC	2	0	0	0
	21D11108b	1. English for Research Paper Writing					
	21D11108c	2. Value Education					
		3. Pedagogy Studies					
Total							18



**JAWAHARLAL NEHRU TECHNOLOGICAL
UNIVERSITY ANANTAPURAMUCOLLEGE OF ENGINEERING (Autonomous)**

ANANTAPUR – 515 002

M.Tech. Digital Electronics & Communication Systems (DECS)

Semester-II							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D41201	Embedded System Design	PC	3	0	0	3
2.	21D41202	Adaptive Digital Signal Processing	PC	3	0	0	3
3.	21D41203a 21D41203b 21D41203c	Program Elective – 3 a. Low Power VLSI Design b. SoC Architecture c. Wireless Sensor Networks	PE	3	0	0	3
4.	21D41204a 21D41204b 21D41204c	Program Elective – 4 a. Software Defined Radio b. Image and Video Processing c. Statistical Signal Processing	PE	3	0	0	3
5.	21D41205	Embedded Systems Lab	PC	0	0	4	2
6.	21D41206	Adaptive Digital Signal Processing Lab	PC	0	0	4	2
7.	21D41207	Technical Seminar	PR	0	0	4	2
8.	21D11208a 21D11208b 21D11208c	Audit Course – II 1. Disaster Management 2. Constitution of India 3. Stress Management by	AC	2	0	0	0
Total							18

Semester-III							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D41301a 21D41301b 21D41301c	Program Elective –5 a. Detection and Estimation Theory b. IoT and Its Applications c. Artificial Intelligence and Machine Learning	PE	3	0	0	3



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2.	21D40301	Open Elective: Network Security and Cryptography	OE	3	0	0	3
3.	21D41302	Dissertation Phase – I	PR	0	0	20	10
4	21D41303	Co-Curricular Activities	PR				02
Total							18

Semester-IV							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D41401	Dissertation Phase – II	PR	0	0	32	16
Total							16

Open Elective:

There shall be One Open Elective in III Semester. The respective boards have to give one subject under open elective category. The students have to choose an elective offered by any department. However, the student shall not select the subject which is already studied or to be studied during the course.

Network Security and Cryptography

Audit course I:

4. English for Research Paper Writing
5. Value Education
6. Pedagogy Studies

Audit course II:

3. Disaster Management
4. Constitution of India
5. Personality Development through Life Enlightenment Skills.

Total Credits: 70

Guidelines for Awarding Credits for Co-curricular Activities:

Name of the Activity	Maximum Credit Points Eligible / Activity
Participation in National Level Seminar/Conference/Workshop/Symposium/ Training Programs (related to the specialization of the student)	1
Participation in international Level Seminar/Conference/Workshop/Symposium/ Training Programs (related to the specialization of the student)	2
Academic Award/Research Award from State Level/National Agencies	1
Academic Award/Research Award from International Agencies	2
Research / Review Publication in National Journals (Indexed in Scopus / Web of Science)	1
Research / Review Publication in International Journals (Indexed in Scopus / Web of Science)	2



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M.Tech. VLSI SYSTEM DESIGN (VLSI SD)

Semester-I							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D42101	CMOS Analog IC Design	PC	3	0	0	3
2.	21D42102	CMOS Digital IC Design	PC	3	0	0	3
3.	21D42103a	Program Elective- 1	PE	3	0	0	3
	21D42103b	a. Microchip Fabrication Techniques					
	21D42103c	b. Advanced Digital System Design					
		c. CAD for VLSI					
4.	21D42104a	Program Elective- 2	PE	3	0	0	3
	21D42104b	a. Device Modelling					
	21D42104c	b. FPGA Architectures and Applications					
		c. ASIC Design/					
5.	21D42105	CMOS Analog IC Design Lab	PC	0	0	4	2
6.	21D42106	CMOS Digital IC Design Lab	PC	0	0	4	2
7.	21D11107	Research Methodology and IPR	MC	2	0	0	2
8.	21D11108a	Audit Course – I	AC	2	0	0	0
	21D11108b	1. English for Research Paper Writing					
	21D11108c	2. Value Education					
		3. Pedagogy Studies					
Total							18

Semester-II							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D42201	CMOS Mixed Signal IC Design	PC	3	0	0	3
2.	21D42202	Physical Design Automation	PC	3	0	0	3
3.	21D42203a	Program Elective – 3	PE	3	0	0	3
	21D42203b	a. SoC Architecture					
	21D42203c	b. Semiconductor Memory Design and Testing					
		c. Low Power VLSI Design					
4.	21D42204a	Program Elective – 4	PE	3	0	0	3
	21D42204b	a. Bi-CMOS Technology and Applications					
	21D42204c	b. System Verilog					
		c. VLSI Signal Processing					
5.	21D42205	CMOS Mixed Signal IC Design Lab	PC	0	0	4	2
6.	21D42206	Physical Design Automation Lab	PC	0	0	4	2
7.	21D42207	Technical Seminar	PR	0	0	4	2



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M.Tech. VLSI SYSTEM DESIGN (VLSI SD)

8.	21D11208a	Audit Course – II	AC	2	0	0	0
	21D11208b	1. Disaster Management					
	21D11208c	2. Constitution of India					
		3. Stress Management by					
Total							18

Semester-III							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D42301a	Program Elective – V	PE	3	0	0	3
	21D42301b	a. RFIC Design					
	21D42301c	b. Optimization Techniques and Applications in VLSI Design					
		c. SoC Testing and Verification					
2.	21D40301	Open Elective	OE	3	0	0	3
		Network Security and Cryptography					
3.	21D42303	Dissertation Phase – I	PR	0	0	20	10
4.	21D42304	Co-Curricular Activities	PR				02
Total							18

Semester-IV							
S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	21D42401	Dissertation Phase – II	PR	0	0	32	16
Total							16

Open Elective:

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Audit course I:

- English for Research Paper Writing
- Value Education
- Pedagogy Studies

Audit course II:

- Disaster Management
- Constitution of India
- Personality Development through Life Enlightenment Skills.