

M. Tech Computer Science and Engineering
COURSE STRUCTURE
I Semester

S.No	Course Code	Course Category	Course Title	L	T	P	Credits
1	20511T01	PC	Mathematical Foundations of Computer Science	3	0	0	3
2	20511T02	PC	Advanced Data Structures & Algorithms	3	0	0	3
3	20511T03/ 20511T04/ 20511T05	PE	Program Elective-1 1. Big Data Analytics 2. Digital Image Processing 3. Advanced Operating Systems	3	0	0	3
4	20511T06/ 20511T07/ 20511T08	PE	Program Elective-2 1. Advanced Computer Networks 2. Internet of Things 3. Object Oriented Software Engineering	3	0	0	3
5	20511T09	CC	Research Methodology and IPR	2	0	0	2
6	20511L10	PC	Advanced Data Structures & Algorithms Lab	0	0	4	2
7	20511L11	PC	Advanced Computing Lab	0	0	4	2
8	20511M12	MC	Audit Course 1*	2	0	0	0
Total Credits							18

II Semester

S.No	Course Code	Course Category	Course Title	L	T	P	Credits
1	20512T01	PC	Machine Learning	3	0	0	3
2	20512T02	PC	MEAN Stack Technologies	3	0	0	3
3	20512T03/ 20512T04/ 20512T05	PE	Program Elective-3 1. Advanced Databases and Mining 2. Adhoc & Sensor Networks 3. Soft Computing	3	0	0	3
4	20512T06/ 20512T07/ 20512T08	PE	Program Elective-4 1. Cloud Computing 2. Principles of Computer Security 3. High Performance Computing	3	0	0	3
5	20512L09	PC	Machine Learning with Python Lab	0	0	4	2
6	20512L10	PC	MEAN Stack Technologies Lab	0	0	4	2
7	20512P11	PROJ	Mini Project with Seminar	-	-	-	2
8	20512M12	MC	Audit Course 2*	2	0	0	0
Total Credits							18


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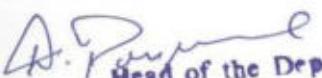
III SEMESTER

S.No	Course Code	Course Category	Course Title	L	T	P	Credits
1	20513T01/ 20513T02	PE	Program Elective-5 1. Deep Learning 2. Social Network Analysis 3. MOOC-1(NPTEL/SWAYAM) 12 Week program related to the program which is not listed in the course structure	3	0	0	3
4	20513T03/ 20513T04	OE	Open Elective 1. Human Resource Management 2. Digital Marketing 3. MOOC-2 (NPTEL/SWAYM) 12 Week program related to the program which is not listed in the course structure	3	0	0	3
5	20513P05	PROJ	Dissertation-1/ Industrial Project	-	-	-	10
Total Credits							16

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

IV SEMESTER

S.No	Course Code	Course Category	Course Title	L	T	P	Credits
1	20514P01	PROJ	Dissertation-II	-	-	-	16
Total Credits							16


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M.Tech: Power Electronics & Drives

Course Structure

I Year, Semester - I

S.N o	Course Code	Cours e Categ ory	Course Title	Hours per week			Total Conta ct Hours	Credi ts
				Lect ure	Tuto rial	Practi cal		
1	20211T01	PCC	Mathematical Modeling of Machines	3	-	-	3	3
2	20211T02	PCC	Analysis of power Electronic Converters	3	-	-	3	3
3	20211T03	PCC	Power Electronic Control of DC Drives	3	-	-	3	3
4	20211T04	PCC	Digital Signal processing	3	-	-	3	3
5	20211T05	HSM C	Research Methodology & IPR	3	-	-	3	3
6	20211L06	PCC	Simulation of Electrical Machines and Converters	-	-	6	6	3
Total number of credits								18

I Year, Semester - II

S.N o	Course Code	Cours e Categ ory	Course Title	Hours per week			Total Conta ct Hours	Credi ts
				Lect ure	Tuto rial	Practi cal		
1	20212T01	PCC	Power Electronic Control of AC Drives	3	-	-	3	3
2	20212T02	PCC	Advanced Power Electronic Converters	3	-	-	3	3
3	20212T03	PEC	RES/SEM/DCS	3	-	-	3	3
4	20212T04	PEC	SG/FACTS/Opt Tech	3	-	-	3	3
5	20212L05	PCC	Electric Drives Lab	-	-	6	6	3
6	20212P06	PROJ	Mini Project with Seminar	-	-	6	6	3
Total number of credits								18

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II Year, Semester - I

S.N o	Course Code	Cours e Categ ory	Course Title	Hours per week			Total Conta ct Hours	Credi ts
				Lect ure	Tuto rial	Practi cal		
1	20213T01	PCC	Digital Control of Drives	3	-	-	3	3
2	20213T02	PEC	ES/VLSI/IP	3	-	-	3	3
3	20213T03	PROJ	Phase - I Dissertation	-	-	-	20	10
Total number of credits								16

II Year, Semester - II

S.N o	Course Code	Cours e Categ ory	Course Title	Hours per week			Total Conta ct Hours	Credi ts
				Lect ure	Tuto rial	Practi cal		
1	20214P01	PROJ	Phase - II Dissertation	-	-	-	32	16
Total number of credits								16

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COURSE STRUCTURE-MIC20
M. Tech (Machine Design)
M. Tech I Semester

S.No	Course Code	Course Title	Hours Per Week			Total Contact Hours	Credits
			L	T	P		
1	20311T01	Advanced Stress Analysis	3	---	---	3	3
2	20311T02	Advanced Vibrations and Acoustics	3	---	---	3	3
3	20311T03	1. Advanced Machine Design	3	---	---	3	3
	20311T04	2. Design for Manufacturing and Assembly					
	20311T05	3. Mathematical Methods in Engineering					
4	20311T06	1. Advanced Engineering Materials	3	---	---	3	3
	20311T07	2. Mechanics of Composite Materials					
	20311T08	3. Analysis and Synthesis of Mechanisms					
5	20311L11	Machine dynamics lab	---	---	4	4	2
6	20311L12	Numerical Simulation lab	---	---	4	4	2
7	20311T09	Research Methodology and IPR	2	---	---	2	2
8	20311T10	Audit Course - 1	2	---	---	2	0
TOTAL			16	---	8	24	18

M. Tech II Semester

S.N o	Course Code	Course Title	Hours Per Week			Total Contact Hours	Credits
			L	T	P		
1	20312T01	Finite Element Method	3	---	---	3	3
2	20312T02	Computer Aided Design	3	---	---	3	3
3	20312T03	1. Tribology in Design	3	---	---	3	3
	20312T04	2. Robotics					
	20312T05	3. Fracture Mechanics					
4	20312T06	1. Multi-body Dynamics	3	---	---	3	3
	20312T07	2. Condition Based Monitoring					
	20312T08	3. Optimization Techniques in Design					
5	20312L11	Computer Aided Design lab	---	---	4	4	2
6	20312L12	Simulation lab	---	---	4	4	2
7	20312T09	Audit -2	2	---	---	2	0
8	20312P10	Mini-Project with Seminar	---	---	4	4	2
TOTAL			14	---	12	26	18





M. Tech III Semester

S.No	Course Code	Course Title	Hours Per Week			Total Contact Hours	Credits
			L	T	P		
1	20313T01	1. Advanced Finite Element Method	3	---	---	3	3
	20313T02	2. Advanced Metallurgy					
2	20313T03	1. Business Analytics	3	---	---	3	3
	20313T04	2. Industrial Safety					
	20313T05	3. Operations Research					
	20313T06	4. Cost Management of Engineering Projects					
	20313T07	5. Composite Materials					
	20313T08	6. Waste to Energy					
3	20313P08	Dissertation Phase – I	---	---	20	20	10
			TOTAL	6	---	20	26
							16

M.Tech IV Semester

S. No	Course Code	Course Title	Hours Per Week			Total Contact Hours	Credits
			L	T	P		
1	20314P01	Dissertation Phase – II	---	--	32	32	32
			TOTAL	---	--	32	32
							16

Audit course 1 & 2

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills.



ACADEMIC REGULATIONS (MIC20)

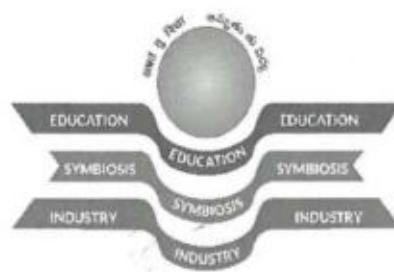
COURSE STRUCTURE & SYLLABUS

for

MASTER OF TECHNOLOGY
(M.Tech)

VLSI AND EMBEDDED SYSTEMS

(Applicable for students admitted into I Year from A.Y 2020-21 onwards)



DVR & Dr. HS
MIC College of Technology
(AUTONOMOUS)

(Approved by AICTE, Accredited by NAAC with 'A' grade, permanently Affiliated to JNTUK, Kakinada)
Kanchikacherla, Krishna Dt, A.P. 521180.

COURSE STRUCTURE
 M.Tech (VLSI and Embedded Systems)
 I Year I Semester

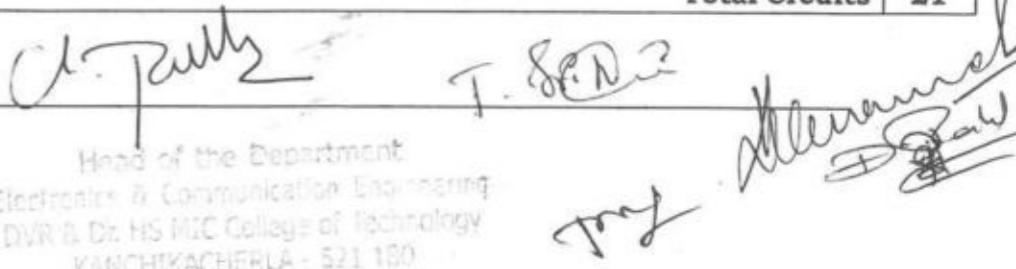
Sr. No.	Course Code	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	20411T01	Digital System Design	3	0	0	3	3
2	20411T02	Embedded system Design	3	0	0	3	3
3	20411T03	Analog VLSI Design	3	0	0	3	3
4	20411T04 20411T05 20411T06	<u>Programme Elective I</u> 1. VLSI Technology and Design 2. CMOS Digital IC Design 3. System on Chip Design	3	0	0	3	3
5	20411T07 20411T08 20411L09	<u>Programme Elective II</u> 1. Advanced Operating Systems 2. Soft Computing Techniques 3. Network Security and Cryptography	3	0	0	3	3
6	20411L10	VLSI System design Lab-I	0	0	4	2	2
7	20411L11	Digital System Design using Verilog and VHDL	0	0	4	2	2
8	20411T12	Research Methodology	2	0	0	2	2
Total Credits							21

I Year II Semester

Sr. No	Course Code	Course Title	L	T	P	Contact Hrs./Wk.	Credits
1	20412T01	Embedded Real Time Operating Systems	3	0	0	3	3
2	20412T02	Low Power VLSI Design	3	0	0	3	3
3	20412T03	CMOS Mixed Signal Circuit Design					
4	20412T04 20412T05 20412T06	<u>Programme Elective III</u> 1. VLSI Signal Processing 2. CPLD & FPGA Architectures and Applications. 3. Advanced Computer Architecture	3	0	0	3	3
5	20412T07 20412T08 20412L09	<u>Programme Elective IV</u> 1. Design of IOT 2. DSP Processors & Architectures 3. Semiconductor Memory Design and Testing.	3	0	0	3	3
6	20412L10	Embedded System Design lab	0	0	4	4	2
7	20412L11	VLSI System design Lab-II	0	0	4	4	2
8	20412T12	Intellectual Property Rights And Patents	2	0	0	2	2
Total Credits							21

M.Tech (VLSI & ES)

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II Year III Semester

r. o.	Course Code	Course Title	L	T	P	Contact Hrs./ Wk.	Credits
1	20413L01	Comprehensive Viva-Voce	4	0	0	4	4
2	20413L02	Seminar	2	0	0	2	2
3	20413L03	Project Work part-1	0	0	14	14	7
Total Credits							13

II Year IV Semester

r. o.	Course Code	Course Title	L	T	P	Contact Hrs./ Wk.	Credi ts
1	20414L01	Project Work Part -II	0	0	26	26	13
Total Credits							13

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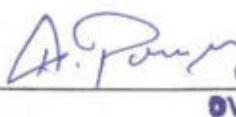
COURSE STRUCTURE

MCA I SEMESTER

S.No	Course Code	Course Category	Course Title	L	T	P	Credits
1	20MC1T01	BS&H	Business Communication	3	0	0	3
2	20MC1T02	BS&H	Mathematical and Statistical Foundations	3	0	0	3
3	20MC1T03	PC	Computer Organization	3	0	0	3
4	20MC1T04	PC	Data Structures Using C	3	0	0	3
5	20MC1T05	PC	Data Base Management Systems	3	0	0	3
6	20MC1L06	BS&H	Business Communication Lab	0	0	3	1.5
7	20MC1L07	PC	Data Structures Lab	0	0	3	1.5
8	20MC1L08	PC	Data Base Management Systems Lab	0	0	3	1.5
9	20MC1M09	MC	Project using Design Thinking	0	0	1	0.5
Total						10	20

MCA II SEMESTER

S.No	Course Code	Course Category	Course Title	L	T	P	Credits
1	20MC2T01	PC	Operating Systems	3	0	0	3
2	20MC2T02	PC	Computer Networks	3	0	0	3
3	20MC2T03	PC	Object Oriented Programming	3	0	0	3
4	20MC2T04	PC	Software Engineering	3	0	0	3
5	20MC2T05/ 20MC2T06/ 20MC2T07	PE	Elective-I No SQL Databases/ Design and Analysis of Algorithms/ Mobile Application Development	3	0	0	3
6	20MC2L08	PC	Operating Systems Lab	0	0	3	1.5
7	20MC2L09	PC	Computer Networks Lab	0	0	3	1.5
8	20MC2L10	PC	Java Programming Lab	0	0	3	1.5
9	20MC2M11	MC	Python Programming (to be taken through MOOCs)	0	0	0	0.5
Total				15	0	10	20

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MCA III SEMESTER

S.No	Course Code	Course Category	Course Title	L	T	P	Credits	
1	20MC3T01	PC	Machine Learning with Python	3	0	0	3	
2	20MC3T02	PC	Big Data Analytics	3	0	0	3	
3	20MC3T03	PC	Web Technologies	3	0	0	3	
4	20MC3T04	PC	Cryptography and Network Security	3	0	0	3	
5	20MC3T05/ 20MC3T06/ 20MC3T07/ 20MC3T08	PE	Elective-II Software Project Management Cloud Computing Cyber Security Advanced Data Bases	3	0	0	3	
6	20MC3L09	PC	Machine Learning with Python Lab	0	0	3	1.5	
7	20MC3L10	PC	Big Data Analytics Lab	0	0	3	1.5	
8	20MC3L11	PC	Web Technologies Lab	0	0	4	2	
9	20MC2P12	PR	Internship / Industry Oriented Mini Project/ Skill Development Course (Minimum 6-weeks)	0	0	0	2	
				Total	15	0	10	22

MCA IV SEMESTER

S.No	Course Code		Course Title	L	T	P	Credit s
1	20MC4T01/ 20MC4T02/ 20MC4T03	PE	Elective-III * Digital Marketing/ Human Resource Management/ Ad-hoc and Sensor Networks/ MOOCs-1(NPTEL/SWAYAM) Full Stack Technologies Any Recommended Course	3	0	0	3
2	20MC4T04/ 20MC4T05/ 20MC4T06 20MC4T07	PE	Elective-IV * Block Chain Technologies/ Software Testing Methodologies/ E Commerce MOOCs-2(NPTEL/SWAYAM) -Data Science -Any Recommended Course	3	0	0	3
3	20MC4P08	PR	Project Work/ Dissertation	0	0	0	12
				Total	6	0	18

*Students going for Industrial Project/Thesis will complete these courses through MOOCs (even in earlier semester)


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**COURSE STRUCTURE
MECHANICAL ENGINEERING
B. TECH I SEMESTER**

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
2	20ME1T02	BSC	Engineering Physics	3	-	-	3	3
3	20ME1T03	HSMC	English	3	-	-	3	3
4	20ME1T04	ESC	Basic Electrical & Electronics Engineering	3	-	-	3	3
5	20ME1T05	ESC	Engineering Graphics	1	-	4	5	3
6	20ME1L06	HSMC	English Communication Skills Lab	-	-	3	3	1.5
7	20ME1L07	BSC	Engineering Physics Lab	-	-	3	3	1.5
8	20ME1L08	ESC	Basic Electrical & Electronics Engineering Lab	-	-	3	3	1.5
Total number of credits								19.5

B. TECH II SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME2T01	BSC	Transform Techniques	3	-	-	3	3
2	20ME2T02	BSC	Engineering Chemistry	3	-	-	3	3
3	20ME2T03	ESC	Engineering Mechanics	3	-	-	3	3
4	20ME2T04	ESC	Thermodynamics	3	-	-	3	3
5	20ME2T05	ESC	Problem Solving Through C	3	-	-	3	3
6	20ME2L06	BSC	Engineering Chemistry Lab	-	-	3	3	1.5
7	20ME2L07	ESC	Engineering & IT Workshop	-	-	3	3	1.5
8	20ME2L08	ESC	Problem Solving through C Lab	-	-	3	3	1.5
9	20ME2M09	MC	Environmental Science	2	-	-	2	-
Total number of credits								19.5



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Kanchikacherla, Krishna Dt.

B.Tech in Mechanical Engineering Andhra Pradesh, India-Pin 521180

B. TECH III SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week*			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME3T01	BSC	Numerical Methods and Vector Calculus	3	-	-	3	3
2	20ME3T02	PCC	Material Science & Metallurgy	3	-	-	3	3
3	20ME3T03	PCC	Production Technology	3	-	-	3	3
4	20ME3T04	PCC	Mechanics of Solids	3	-	-	3	3
5	20ME3T05	PCC	Fluid Mechanics and Hydraulic Machines	3	-	-	3	3
6	20ME3L06	PCC	Production Technology Lab	-	-	3	3	1.5
7	20ME3L07	PCC	Fluid Mechanics and Hydraulic Machines Lab	-	-	3	3	1.5
8	20ME3L08	PCC	Mechanics of Solids & Metallurgy Lab	-	-	3	3	1.5
9	20ME3S09	SC	Computer aided drafting and modeling Lab	0	-	4	4	2
Total number of credits								21.5

B. TECH IV SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week*			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME4T01	BSC	Complex Variables and Statistical Methods	3	-	-	3	3
2	20ME4T02	PCC	Design of Machine Elements	3	-	-	3	3
3	20ME4T03	PCC	Internal Combustion Engines & Air Compressors	3	-	-	3	3
4	20ME4T04	PCC	Kinematics of Machinery	3	-	-	3	3
5	20ME4T05	HSMC	Managerial Economics & Financial Analysis	3	-	-	3	3
6	20ME4L06	PCC	Proficiency Through Reading & Writing Lab	-	-	3	3	1.5
7	20ME4L07	PCC	Computer Aided Machine Drawing Lab	-	-	3	3	1.5
8	20ME4L08	PCC	Thermal Engineering Lab	-	-	3	3	1.5
9	20ME4S09	SC	Programming through MATLAB	0	-	4	4	2
10	20ME3M10	MC	Constitution of India	2	-	-	2	-
Total number of credits								21.5
Honors/Minor courses				4	0	0	-	4

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B.TECH V SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME5T01	PCC	Dynamics of Machines	3	-	-	3	3
2	20ME5T02	PCC	Turbo machines	3	-	-	3	3
3	20ME5T03	PCC	Metal Cutting &Machine Tools	3	-	-	3	3
4		OEC	Open Elective-I	3	-	-	3	3
	Professional Elective -I							
5	20ME5T06	PEC	Experimental Stress Analysis	3	-	-	3	3
	20ME5T07		Design for Manufacturing					
	20ME5T08		Refrigeration & Air Conditioning					
6	20ME5L09	PCC	Theory of Machines Lab	-	-	3	3	1.5
7	20ME5L10	PCC	Machine Tools & Computer Aided Manufacturing Lab	-	-	3	3	1.5
8	20ME5S11	SC	Simulation of Mechanical Systems Lab	-	-	4	4	2
9	20ME5M12	MC	Essence of Indian Traditional knowledge	2	-	-	2	-
10	20ME5I13	I	Summer Internship	-	-	-	-	1.5
Total number of credits								21.5
Honors/Minor courses				4	-	-	4	4

B. TECH VI SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME6T01	PCC	Design of Transmission Elements	3	-	-	3	3
2	20ME6T02	PCC	Heat Transfer	3	-	-	3	3
3	20ME6T03	PCC	Metrology and Measurements	3	-	-	3	3
	Professional Elective -II							
4	20ME6T04	PEC	Finite Element Methods	3	-	-	3	3
	20ME6T05		Computational Fluid Dynamics					
	20ME6T06		Production Planning & Control					
5		OEC	Open Elective-II	3	-	-	3	3
6	20ME6L09	PCC	Metrology & Instrumentation Lab	-	-	3	3	1.5
7	20ME6L10	PCC	Heat Transfer Lab	-	-	3	3	1.5
8	20ME6L11	PCC	CAE & CFD Lab	-	-	3	3	1.5
9	20ME6S12	SC	Soft skills	-	-	4	4	2
10	20ME6M13	MC	Disaster Management	2	-	-	2	-
Total number of credits								21.5
Honors/Minor courses				4	-	-	4	4

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B. TECH VII SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
Professional Elective -III/ MOOCS								
1	20ME7T01	PEC	Advanced Materials	3	-	-	3	3
	20ME7T02		Power Plant Engineering					
	20ME7T03		Advanced Optimization Techniques					
	Professional Elective -IV/ MOOCS							
2	20ME7T04	PEC	Management Science	3	-	-	3	3
	20ME7T05		Additive Manufacturing					
	20ME7T06		Advanced Machining Processes					
Professional Elective -V / MOOCS								
3	20ME7T07	PEC	Mechanical Vibrations	3	-	-	3	3
	20ME7T08		Automobile Engineering					
	20ME7T09		Non Destructive Evaluation					
4	OEC	Open Elective-III		3	-	-	3	3
5		Open Elective-IV		3	-	-	3	3
6	20ME7T14	HSMC	Universal Human Values 2: Understanding Harmony	3	-	-	3	3
7	20ME7S15	SC	Python Programming Lab	1	-	2	3	2
8	20ME7I16	I	Industrial/Research Internship	-	-	-	-	3
Total number of credits								23
Honors/Minor courses				4	-	-	4	4

B. TECH VIII SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ME8P01	P	Project (Project work/internship)	-	-	-	-	12
INTERNSHIP (6 MONTHS)								
Total number of credits								12


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Dept. of Mechanical Engg
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Kanchikacherla, Krishnagiri
Andhra Pradesh, India-521100

OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EE5T04	Basics of Control Systems	3	0	0	3	EEE
4	20EE5T05	Special Electrical Machines	3	0	0	3	EEE
5	20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20ME5T05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating System	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T01	Quantitative Aptitude and Reasoning	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	3D printing	3	0	0	3	ME


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7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE
8	20EC6T08	Principles of Communications	3	0	0	3	ECE
9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T01	Operations Research	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy sets	3	0	0	3	BED

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B.Tech in Mechanical Engineering
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16	20MB7T01	Digital Media management	3	0	0	3	DMS
17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS
18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS
19	20AM7T10	NOSQL Databases	3	0	0	3	AIML

OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML


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 Andhra Pradesh, India-Pin 521180

HONORS/MINOR COURSES OFFERED BY THE DEPARTMENT

Honors/ Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by ME Department (except for ME Students).
- Honors engineering subjects are offered to ME Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

HONORS COURSES

S.No.	Course code	Course Name	L	T	P	C
<u>Pool-1</u>						
1	20MEHN01	Advanced Mechanics of Solids	4	0	0	4
2	20MEHN02	Fracture Mechanics	4	0	0	4
3	20MEHN03	Advanced Machine Design	4	0	0	4
4	20MEHN04	Tribology	4	0	0	4
<u>Pool-2</u>						
5	20MEHN05	Measurements in Heat Transfer	4	0	0	4
6	20MEHN06	Advanced Mechanics of Fluids	4	0	0	4
7	20MEHN07	Energy Storage Systems	4	0	0	4
8	20MEHN08	Advanced Thermodynamics	4	0	0	4
<u>Pool-3</u>						
9	20MEHN09	Metrology and Computer Aided Inspection	4	0	0	4
10	20MEHN10	Lean Manufacturing	4	0	0	4
11	20MEHN11	Flexible Manufacturing Systems	4	0	0	4
12	20MEHN12	Robotics & Control	4	0	0	4
<u>Pool-4</u>						
13	20MEHN13	Quality Engineering in Manufacturing	4	0	0	4
14	20MEHN14	Precision Engineering	4	0	0	4
15	20MEHN15	Automation in Manufacturing	4	0	0	4
16	20MEHN16	Materials Characterization Techniques	4	0	0	4

MINOR COURSES

S.N o.	Course code	Course Name	L	T	P	C	Offered by
1	20MEMN01	Engineering Mechanics	3	1	0	4	MECH
2	20MEMN02	Thermal Engineering	3	1	0	4	MECH
3	20MEMN03	Production Technology	3	1	0	4	MECH
4	20MEMN04	Fundamentals of Engineering Design	3	1	0	4	MECH
5	20MEMN05	Production Planning and control	3	1	0	4	MECH
6	20MEMN06	Materials Technology	3	1	0	4	MECH
7	20MEMN07	Basics of Mechanical Engineering	3	1	0	4	MECH
8	20MEMN08	Automobile Engineering	3	1	0	4	MECH

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Dept. of Mechanical Engg

DVR & Dr. HS MIC College of Tech

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B.Tech in Mechanical Engineering, India-Pin

ACADEMIC REGULATIONS (MIC20)

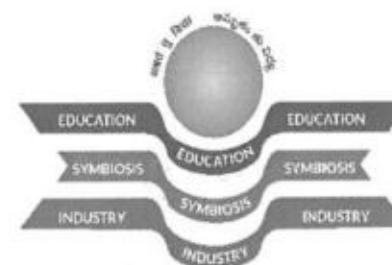
COURSE STRUCTURE & SYLLABUS

for

BACHELOR OF TECHNOLOGY
(B.Tech)

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

(Applicable for students admitted into I Year from the A.Y 2021-22 onwards & for the students admitted into II Year through Lateral Entry Scheme from the A.Y 2022-23 onwards)



DVR & Dr. HS
MIC College of Technology
(AUTONOMOUS)

(Approved by AICTE, Accredited by NAAC with 'A' grade, permanently Affiliated to JNTUK, Kakinada)
Kanchikacherla, Krishna Dt, A.P. 521180.

ARTIFICIAL INTELLIGENCE & DATA SCIENCE
COURSE STRUCTURE
B. TECH I SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
9-10	1 20AD1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
11-13	2 20AD1T02	BSC	Applied Chemistry	3	-	-	3	3
14-15	3 20AD1T03	HSMC	English	3	-	-	3	3
16-19	4 20AD1L04	ESC	Computer Engineering Workshop	1	-	4	3	3
20-21	5 20AD1T05	ESC	Problem Solving through C	3	-	-	3	3
22	6 20AD1L06	HSMC	English Communication Skills Lab	-	-	3	3	1.5
23-24	7 20AD1L07	BSC	Applied Chemistry Lab	-	-	3	3	1.5
25-27	8 20AD1L08	ESC	Problem Solving through C Lab	-	-	3	3	1.5
28-29	9 20AD1M09	MC	Environmental Science	2	-	-	2	-
Total Number of Credits								19.5

B. TECH II SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
30-31	1 20AD2T01	BSC	Transform Techniques	3	-	-	3	3
32-34	2 20AD2T02	BSC	Applied Physics	3	-	-	3	3
35-36	3 20AD2T03	ESC	Computer Organization	3	-	-	3	3
37-38	4 20AD2T04	ESC	Data Structures	3	-	-	3	3
39-40	5 20AD2T05	ESC	Python Programming	3	-	-	3	3
41-42	6 20AD2L06	BSC	Applied Physics Lab	-	-	3	3	1.5
43-44	7 20AD2L07	ESC	Data Structures Lab	-	-	3	3	1.5
45-46	8 20AD2L08	ESC	Python Programming Lab	-	-	3	3	1.5
Total Number of Credits								19.5

B. TECH III SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
47-48	1 20AD3T01	BSC	Numerical Methods & Vector Calculus	3	-	-	3	3
49-50	2 20AD3T02	PCC	Introduction to Artificial Intelligence	3	-	-	3	3
51-52	3 20AD3T03	PCC	Object Oriented Programming through Java	3	-	-	3	3
53-54	4 20AD3T04	PCC	Data Base Management Systems	3	-	-	3	3
55-56	5 20AD3T05	PCC	Operating Systems	3	-	-	3	3
57-58	6 20AD3L06	PCC	Object Oriented Programming through Java Lab	-	-	3		1.5
59-60	7 20AD3L07	PCC	Data Base Management Systems Lab	-	-	3		1.5
61-62	8 20AD3L08	PCC	UNIX and Shell programming Lab	-	-	3		1.5
63-64	9 20AD3S09	SC	Data Analysis and visualization with Python	-	-	4		2
65-66	10 20AD3M10	MC	Constitution of India	2	-	-		-
Total Number of Credits								21.5

B. TECH IV SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
70-71	1 20AD4T01	BSC	Probability and Statistics	3	-	-	3	3
72-73	2 20AD4T02	ESC	Discrete Mathematical Structures	3	-	-	3	3
74-75	3 20AD4T03	PCC	Design and Analysis of Algorithms	3	-	-	3	3
76-77	4 20AD4T04	PCC	Foundations of Data science	3	-	-	3	3
78-79	5 20AD4T05	HSMC	Managerial Economics and Financial Analysis	3	-	-	3	3
80-81	6 20AD4L06	ESC	R Programming Lab	-	-	3	3	1.5
82-83	7 20AD4L07	PCC	Data Science lab	-	-	3	3	1.5
84-	8 20AD4L08	PCC	Design and Analysis of Algorithms Lab	-	-	3	3	1.5
	9 20AD4S09	SC	Basic Web programming	-	-	4	4	2
Total number of credits								21.5

Internship 2 Months (Mandatory) during summer vacation

Honors/Minor courses

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Digital Artificial Intelligence & Data Science

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Pin : 52210

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B.TECH V SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits	
				Lecture	Tutorial	Practical			
85-86	1	20AD5T01	PCC	Theory of Automata	3	0	0	3	3
87-88	2	20AD5T02	PCC	Data Warehousing & Mining	3	0	0	3	3
89-90	3	20AD5T03	PCC	Machine Learning	3	0	0	3	3
Program Elective-I				PE-I	3	0	3	3	
91-92	4	20AD5T04	PE-I	Advanced Data Structures					
93-94	5	20AD5T05		E-Commerce					
95-96	6	20AD5T06		Software Engineering					
97-98	7	Open Elective-I			3	0	0	3	3
99-100	8	20AD5L08	PCC	Machine Learning Lab	0	0	3	3	1.5
101-102	9	20AD5L09	PCC	Data Warehousing and Mining Lab	0	0	3	3	1.5
103-104	10	20AD5S10	SC	Testing Tools Lab	0	0	4	4	2
105-106	11	20AD5M11	MC	Disaster Management	2	0	0	2	-
107-108	12	20AD5I12	I	Summer Internship	0	0	0	1.5	1.5
Total number of credits								21.5	
Honors/Minor courses					4	0	0	-	4

B.TECH VI SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits	
				Lecture	Tutorial	Practical			
105-106	1	20AD6T01	PCC	NoSQL Databases	3	0	0	3	3
107-108	2	20AD6T02	PCC	Computer Networks	3	0	0	3	3
109-110	3	20AD6T03	PCC	Big Data Analytics	3	0	0	3	3
Program Elective-II				PE-II	3	0	3	3	
111-112	4	20AD6T04	PE-II	MEAN Stack Technologies					
113-114	5	20AD6T05		Compiler Design					
115-116	6	20AD6T06		Software Architecture and Design patterns					
117-118	7	Open Elective-II			3	0	0	3	3
119-120	8	20AD6L08	PCC	NoSQL Lab	0	0	3	3	1.5
121-122	9	20AD6L09	PCC	Computer Networks Lab	0	0	3	3	1.5
123-124	10	20AD6L10	PCC	BDA Lab	0	0	3	3	1.5
125-126	11	20AD6S11	SC	Soft Skills	0	0	4	4	2
127-128	12	20AD6M12	MC	Essence of Indian traditional knowledge	2	0	0	2	-
129-130	13	20AD6P13	P	Community Service Project	-	-	-	-	4
Total number of credits								25.5	
Honors/Minor courses					4	0	0	-	4

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B.TECH VII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits	
				Lecture	Tutorial	Practical			
Program Elective-III									
1	20AD7T01	PE-III	Cloud computing	3	0	0	3	3	
2	20AD7T02		Natural Language Processing						
3	20AD7T03		Software Project Management						
Program Elective-IV									
4	20AD7T04	PE-IV	Neural Networks and Deep Learning	3	0	0	3	3	
5	20AD7T05		Information Security						
6	20AD7T06		Business Intelligence						
Program Elective-V									
7	20AD7T07	PE-V	Soft Computing	3	0	0	3	3	
8	20AD7T08		Computer Vision						
9	20AD7T09		Internet of Things						
10	Open Elective-III			3	0	0	3	3	
11	Open Elective-IV			3	0	0	3	3	
12	20AD5L12	HSMC	Universal Human Values 2: Understanding Harmony	0	0	3	3	3	
13	20AD5S13	SC	Data Visualization using Tableau	0	0	4	4	2	
14	20AD5I14	I	Industrial Internship	-	-	-	-	3	
Total number of credits								23	
Honors/Minor courses				4	0	0	-	4	

B.TECH VIII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20AD8P01	P	Project	0	0	0	12	8
Total number of credits							8	


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OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
146-47	1 20CE5T04	Architecture and Town Planning	3	0	0	3	CE
148-49	2 20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
150-51	3 20EE5T04	Basics of Control Systems	3	0	0	3	EEE
152-53	4 20EE5T05	Special Electrical Machines	3	0	0	3	EEE
154-55	5 20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
156-57	6 20ME5T05	Nanotechnology	3	0	0	3	ME
158-59	7 20EC5T04	Linear System Analysis	3	0	0	3	ECE
160-61	8 20EC5T05	Digital Logic Design	3	0	0	3	ECE
162-63	9 20EC5T06	Solid State Devices	3	0	0	3	ECE
164-65	10 20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
166-67	11 20CS5T08	Operating System	3	0	0	3	CSE
68-69	12 20CS5T09	Software Engineering	3	0	0	3	CSE
170-71	13 20IT5T07	Computer Networks	3	0	0	3	IT
172-73	14 20IT5T08	Computer Graphics	3	0	0	3	IT
174-75	15 20HS5T02	Operations Research	3	0	0	3	BED
176-77	16 20MB5T01	Principles of Management	3	0	0	3	DMS
178-79	17 20MB5T02	Technology Management	3	0	0	3	DMS
180-81	18 20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
182-83	19 20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
184-85	1 20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
186-87	2 20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
188-89	3 20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
190-91	4 20EE6T09	Energy Auditing Conservation and Management	3	0	0	3	EEE
192-94	5 20ME6T07	Industrial Robotics	3	0	0	3	ME
195-96	6 20ME6T08	Additive manufacturing	3	0	0	3	ME
197-98	7 20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE

199-200	8	20EC6T08	Principles of Communications	3	0	0	3	ECE
201-202	9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
203-204	10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
205-206	11	20CS6T08	Information Security	3	0	0	3	CSE
207-208	12	20CS6T09	Agile Technologies	3	0	0	3	CSE
209-210	13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
211-212	14	20IT6T08	Database Management Systems	3	0	0	3	IT
213	15	20HS6T02	Quantitative Aptitude & Reasoning	3	0	0	3	BED
214-215	16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
216-217	17	20MB6T02	Project Management	3	0	0	3	DMS
218-219	18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
220-221	19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by	
222-223	1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
224-225	2	20CE7T14	Green Buildings	3	0	0	3	CE
226-227	3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
228-229	4	20EE7T14	Instrumentation	3	0	0	3	EEE
230-231	5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
232-233	6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
234-235	7	20EC7T10	Data Communications	3	0	0	3	ECE
236-237	8	20EC7T11	Mechatronics	3	0	0	3	ECE
238-239	9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
240-241	10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
242-243	11	20CS7T11	Cyber Security	3	0	0	3	CSE
244-245	12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
246-247	13	20IT7T10	Internet of Things	3	0	0	3	IT
248-249	14	20IT7T11	Computer Vision	3	0	0	3	IT
250-251	15	20HS7T01	Fuzzy sets	3	0	0	3	BED
252-253	16	20MB7T01	Digital Media management	3	0	0	3	DMS
254-255	17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS

256-57	18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS
258-59	19	20AM7T10	NOSQL Databases	3	0	0	3	AIML

OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML

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Dept. of Artificial Intelligence & Data Sciences
DVR & Dr. HS MIC College of Technology
Kanchikacherla, Krishna Dt.
Andhra Pradesh, India - Pin : 521180.

MINOR COURSES OFFERED BY THE DEPARTMENT

Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by AIDS Department (except for AIDS Students).
- Honors engineering subjects are offered to AIDS Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

MINOR COURSES

S.No	Course code	Course Name	L	T	P	C	Offered by
1	20ADMN01	Introduction to Data Science	3	1	0	4	AIDS
2	20ADMN02	Introduction to Machine Learning	3	1	0	4	AIDS
3	20ADMN03	Advanced Data Structures	3	1	0	4	AIDS
4	20ADMN04	Social Network Analysis	3	1	0	4	AIDS
5	20ADMN05	Natural Language Processing	3	1	0	4	AIDS
6	20ADMN06	Robotic Process Automation	3	1	0	4	AIDS
7	20ADMN07	MOOC1	-	-	-	2	AIDS
8	20ADMN08	MOOC2	-	-	-	2	AIDS

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ACADEMIC REGULATIONS (MIC20)

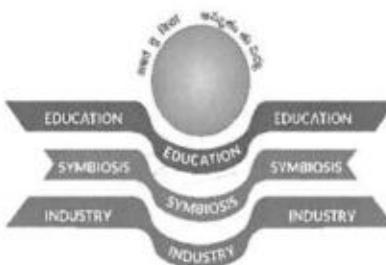
COURSE STRUCTURE & SYLLABUS

for

BACHELOR OF TECHNOLOGY
(B.Tech)

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

(Applicable for students admitted into I Year from the A.Y 2021-22 onwards & for the students admitted into II Year through Lateral Entry Scheme from the A.Y 2022-23 onwards)



DVR & Dr. HS
MIC College of Technology
(AUTONOMOUS)

(Approved by AICTE, Accredited by NAAC with 'A' grade, permanently Affiliated to JNTUK, Kakinada)

Kanchikacherla, Krishna Dt, A.P. 521180.



ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
COURSE STRUCTURE
B. TECH I SEMESTER

S.N o.	Course Code	Course Categor y	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20AM1T01	BSC	Linear Algebra and Differential Equations	3	-	1	3	3
2	20AM1T02	BSC	Applied Chemistry	3	-	1	3	3
3	20AM1T03	HSMC	English (14-15)	3	-	1	3	3
4	20AM1L04	ESC	Computer Engineering Workshop	1	-	4	3	3
5	20AM1T05	ESC	Problem Solving through C	3	-	1	3	3
6	20AM1L06	HSMC	English Communication Skills Lab (21)	-	-	3	3	1.5
7	20AM1L07	BSC	Applied Chemistry Lab	-	-	3	3	1.5
8	20AM1L08	ESC	Problem Solving through C Lab	-	-	3	3	1.
9	20AM1M09	MC	Environmental Science	2	-	1	2	-
Total number of credits								19.5

B. TECH II SEMESTER

S.No.	Course Code	Course Categor y	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20AM2T01	BSC	Transform Techniques	3	-	1	3	3
2	20AM2T02	BSC	Applied Physics	3	-	1	3	3
3	20AM2T03	ESC	Computer organization	3	-	1	3	3
4	20AM2T04	ESC	Data Structures	3	-	1	3	3
5	20AM2T05	ESC	Python Programming	3	-	1	3	3
6	20AM2L06	BSC	Applied Physics Lab	-	-	3	3	1.5
7	20AM2L07	ESC	Data Structures Lab	-	-	3	3	1.5
8	20AM2L08	ESC	Python Programming Lab	-	-	3	3	1.5
Total number of credits								19.5

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Andhra Pradesh, India – Pin : 521180.



B. TECH III SEMESTER

S.No.	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20AM3T01	BSC	Numerical Methods & Vector Calculus	3	-	-	3	3
2	20AM3T02	PCC	Introduction to Artificial Intelligence	3	-	-	3	3
3	20AM3T03	PCC	Object Oriented Programming through Java	3	-	-	3	3
4	20AM3T04	PCC	Data Base Management Systems	3	-	-	3	3
5	20AM3T05	PCC	Operating Systems	3	-	-	3	3
6	20AM3L06	PCC	Object Oriented Programming through Java Lab	-	-	3	3	1.5
7	20AM3L07	PCC	Data Base Management Systems Lab	-	-	3	3	1.5
8	20AM3L08	PCC	UNIX and Shell programming Lab	-	-	3	3	1.5
9	20AM3S09	SC	Data analysis and visualization with python	-	-	4	4	2
10	20AM3M10	MC	Constitution of India	2	-	-	2	-
Total number of credits								21.5

B. TECH IV SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20AM4T01	BSC	Probability and Statistics	3	-	-		3
2	20AM4T02	ESC	Discrete Mathematical Structures	3	-	-		3
3	20AM4T03	PCC	Design and Analysis of Algorithms	3	-	-		3
4	20AM4T04	PCC	Machine Learning	3	-	-		3
5	20AM4T05	HSMC	Managerial Economics and Financial Analysis	3	-	-		3
6	20AM4L06	ESC	R Programming Lab	-	-	3		1.5
7	20AM4L07	PCC	Machine Learning Using Python Lab	-	-	3		1.5
8	20AM4L08	PCC	Design and analysis of Algorithms Lab	-	-	3		1.5
9	20AM4S09	SC	Basic Web programming	-	-	4		2
Total number of credits								21.5

Internship 2 Months (Mandatory) during summer vacation

Honors/Minor courses	Dept. of CSE	Chairman	0	-	4
	DVR & Dr. HS MIC College of Technology Kanchikacherla, Krishna Andhra Pradesh, India - 521112				

B.TECH V SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credi ts
				Lecture	Tutorial	Practical		
1	20AM5T01	PCC	Theory of Automata	3	0	0	3	3
2	20AM5T02	PCC	Data Warehousing & Mining	3	0	0	3	3
3	20AM5T03	PCC	Software Engineering	3	0	0	3	3
Program Elective-I								
4	20AM5T04	PE-I	Computer Graphics	3	0	0	3	3
5	20AM5T05		E-Commerce					
6	20AM5T06		Data Science and Visualization					
7	Open Elective-I			3	0	0	3	3
8	20AM5L08	PCC	CASE Tools Lab	0	0	3	3	1.5
9	20AM5L09	PCC	Data Warehousing and Mining Lab	0	0	3	3	1.5
10	20AM5S10	SC	Testing Tools Lab	0	0	4	4	2
11	20AM5M11	MC	Disaster Management	2	0	0	2	-
12	20AM5I12	I	Summer Internship	0	0	0	1.5	1.5
Total number of credits								21.5
Honors/Minor courses				4	0	0	-	4

B.TECH VI SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credit s
				Lecture	Tutorial	Practical		
1	20AM6T01	PCC	Deep Learning	3	0	0	3	3
2	20AM6T02	PCC	Computer Networks	3	0	0	3	3
3	20AM6T03	PCC	Big Data Analytics	3	0	0	3	3
Program Elective-II								
4	20AM6T04	PE-II	MEAN Stack Technologies	3	0	0	3	3
5	20AM6T05		Compiler Design					
6	20AM6T06		Software Architecture and Design patterns					
7	Open Elective-II			3	0	0	3	3
8	20AM6L08	PCC	Deep Learning Lab	0	0	3	3	1.5
9	20AM6L09	PCC	Computer Networks Lab	0	0	3	3	1.5
10	20AM6L10	PCC	BDA Lab	0	0	3	3	1.5
11	20AM6S11	SC	Soft Skills	0	0	4	4	2
12	20AM6M12	MC	Essence of Indian traditional knowledge	2	0	0	2	-
13	20AM6P13	P	Community Service Project	-	-	-	-	4
Total number of credits								25.5
Honors/Minor courses				4	0	0	-	4

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Andhra Pradesh, India - Pin : 521180.

B.TECH VII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits	
				Lecture	Tutorial	Practical			
Program Elective-III									
1	20AM7T01	PE-III	Cloud Computing	3	0	0	3	3	
2	20AM7T02		Natural Language Processing						
3	20AM7T03		Software Project Management						
Program Elective-IV									
4	20AM7T04	PE-IV	Software Testing Methodologies	3	0	0	3	3	
5	20AM7T05		Information Security						
6	20AM7T06		Business Intelligence						
Program Elective-V									
7	20AM7T07	PE-V	Soft Computing	3	0	0	3	3	
8	20AM7T08		Robotics and its Applications						
9	20AM7T09		Internet of Things						
10	Open Elective-III			3	0	0	3	3	
11	Open Elective-IV			3	0	0	3	3	
12	20AM5L12	HSMC	Universal Human Values Understanding Harmony	0	0	3	3	3	
13	20AM5S13	SC	Data Visualization using Tableau	0	0	4	4	2	
14	20AM5I14	I	Industrial Internship	-	-	-	-	3	
Total number of credits								23	
Honors/Minor courses				4	0	0	-	4	

B.TECH VIII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
2	20AM8P01	P	Project	0	0	0	-	8
Total number of credits								


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 Andhra Pradesh, India – Pin : 521100.

OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EE5T04	Basics of Control Systems	3	0	0	3	EEE
4	20EE5T05	Special Electrical Machines	3	0	0	3	EEE
5	20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20ME5T05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating Systems	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T02	Operations Research	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	Additive manufacturing	3	0	0	3	ME
7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE
8	20EC6T08	Principles of Communications	3	0	0	3	ECE



9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T02	Quantitative Aptitude and Reasoning	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy sets	3	0	0	3	BED
16	20MB7T01	Digital Media management	3	0	0	3	DMS
17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS
18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS

19	20AM7T10	NoSQL Databases	3	0	0	3	AIML
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OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML

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 Dept. of Artificial Intelligence & Machine Learning
 DVR & Dr. HS MIC College of Technology
 Kanchi Pherla, Krishnayya
 Andhra Pradesh, India - Pin : 522202.

MINOR COURSES OFFERED BY THE DEPARTMENT

Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by AIML Department (except for AIML Students).
- Honors engineering subjects are offered to AIML Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

MINOR COURSES

S.No.	Course code	Course Name	L	T	P	C	Offered by
1	20AMMN01	Introduction to Data Science	3	1	0	4	AIML
2	20AMMN02	Introduction to AI	3	1	0	4	AIML
3	20AMMN03	NOSQL Databases	3	1	0	4	AIML
4	20AMMN04	Social Network Analysis	3	1	0	4	AIML
5	20AMMN05	Natural Language Processing	3	1	0	4	AIML
6	20AMMN06	Robotic Process Automation	3	1	0	4	AIML
7	20AMMN07	MOOC1	-	-	-	2	AIML
8	20AMMN08	MOOC2	-	-	-	2	AIML

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Artificial Intelligence & Machine Learning
DVR & Dr. HS MIC College of Technology
Achikacherla, Andhra Pradesh, India - 511180*

ACADEMIC REGULATIONS (MIC20)

COURSE STRUCTURE

&

SYLLABUS

for

**BACHELOR OF TECHNOLOGY
(B.Tech)**

CIVIL ENGINEERING

(Applicable for students admitted into I Year from A.Y 2020-21 onwards & for the students admitted into II year through Lateral Entry Scheme from the A.Y 2021-22 onwards)



DVR & Dr. HS

MIC College of Technology
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Kanchikacherla, Krishna Dt, A.P. 521180.



CIVIL ENGINEERING
COURSE STRUCTURE
B. TECH I SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CE1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
2	20CE1T02	BSC	Engineering Physics	3	-	-	3	3
3	20CE1T03	HSMC	English	3	-	-	3	3
4	20CE1T04	ESC	Building Materials & Construction	3	-	-	3	3
5	20CE1T05	ESC	Engineering Graphics	1	-	4	5	3
6	20CE1L06	HSMC LAB	English Communication Skills Lab	-	-	3	3	1.5
7	20CE1L07	BSC LAB	Engineering Physics Lab	-	-	3	3	1.5
8	20CE1L08	ESC LAB	Civil Engineering Workshop	-	-	3	3	1.5
Total number of credits								19.5

B. TECH II SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CE2T01	BSC	Transform Techniques	3	-	-	3	3
2	20CE2T02	BSC	Engineering Chemistry	3	-	-	3	3
3	20CE2T03	ESC	Engineering Mechanics	3	-	-	3	3
4	20CE2T04	ESC	Building Planning and Drawing	3	-	-	3	3
5	20CE2T05	ESC	Problem Solving Through C	3	-	-	3	3
6	20CE2L06	BSC LAB	Engineering Chemistry Lab	-	-	3	3	1.5
7	20CE2L07	ESC LAB	Computer Aided Building Drawing Lab	-	-	3	3	1.5
8	20CE2L08	ESC LAB	Problem Solving Through C Lab	-	-	3	3	1.5
9	20CE2M09	MC	Environmental Science	2	-	-	2	-
Total number of credits								19.5

[Signature]
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Board of Studies

Dept. of Civil Engg.

DVR & Dr. HS MIC College of Technology

Kanchikacherla, Krishna Dt.

Andhra Pradesh, India – Pin: 521180.



B. TECH III SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CE3T01	BSC	Numerical Methods and Vector calculus	3	-	-	3	3
2	20CE3T02	PCC	Strength of Materials	3	-	-	3	3
3	20CE3T03	PCC	Fluid Mechanics	3	-	-	3	3
4	20CE3T04	PCC	Concrete Technology	3	-	-	3	3
5	20CE3T05	PCC	Surveying	3	-	-	3	3
6	20CE3L06	PCC LAB	Strength of Materials Lab	-	-	3	3	1.5
7	20CE3L07	PCC LAB	Surveying Field Work	-	-	3	3	1.5
8	20CE3L08	PCC LAB	Concrete Technology Lab	-	-	3	3	1.5
9	20CE3S09	SC	AUTO CAD 2D&3D	-	-	4	4	2
Total number of credits								21.5

B. TECH IV SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CE4T01	BSC	Complex Variables and Statistical Methods	3	-	-	3	3
2	20CE4T02	ESC	Engineering Geology	3	-	-	3	3
3	20CE4T03	PCC	Hydraulics and Hydraulic Machinery	3	-	-	3	3
4	20CE4T04	PCC	Structural Analysis-1	3	-	-	3	3
5	20CE4T05	HSMC	Managerial Economics and Financial Analysis	3	-	-	3	3
6	20CE4L06	PCC LAB	Engineering Geology Lab	-	-	3	3	1.5
7	20CE4L07	PCC LAB	Fluid Mechanics and Hydraulic Machinery Lab	-	-	3	3	1.5
8	20CE4L08	PCC LAB	Advanced Surveying Lab	-	-	3	3	1.5
9	20CE4S09	SC	Revit Architecture	-	-	4	4	2
10	20CE4M10	MC	Constitution of India	2	-	-	-	-
Total number of credits								21.5
Internship 2 Months (Mandatory) during summer vacation								
Honors/ Minor Course				4	0	0	4	4

Subba Rao
CHAIRMAN

B. TECH V SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CE5T01	PCC	Geotechnical Engineering-1	3	-	-	3	3
2	20CE5T02	PCC	Transportation Engineering -1	3	-	-	3	3
3	20CE5T03	PCC	Design and Drawing of Reinforced Concrete Structures	3	-	-	3	3
4	Open Elective-I			3	-	-	3	3
5	Professional Elective-I			3	-	-	3	3
	20CE5T06	PEC	Structural Analysis - 2					
	20CE5T07		Rural Water Supply and Environmental Sanitation					
	20CE5T08		Geo synthetics					
	20CE5T09		Interior Designs and Decorations					
6	20CE5L10	PCC LAB	Geotechnical Engineering Lab	-	-	3	3	1.5
7	20CE5L11	PCC LAB	Transportation Engineering Lab	-	-	3	3	1.5
8	20CE5S12	SC	STAAD PRO LAB	-	-	4	4	2
9	20CE5M13	MC	Essence of Indian Traditional Knowledge	2	-	-	2	-
10	20CE5I14	I	Summer Internship	-	-	-	-	1.5
Total number of credits								21.5
Honors/ Minor Course				4	0	0	4	4

B. TECH VI SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CE6T01	PCC	Design and Drawing of Steel Structures	3	-	-	3	3
2	20CE6T02	PCC	Water Resources Engineering-1	3	-	-	3	3
3	20CE6T03	PCC	Environmental Engineering	3	-	-	3	3
4	Professional Elective-II			3	-	-	3	3
	20CE6T04	PEC	Geotechnical Engineering -2					
	20CE6T05		Air pollution and Control					
	20CE6T06		Urban Transportation Planning					
	20CE6T07		Ground water development and Management.					
5	Open Elective-II			3	-	-	3	3
6	20CE6L10	PCC LAB	Environmental Engineering Lab	-	-	3	3	1.5
7	20CE6L11	PCC LAB	Design and Drawing of Irrigation Structures	-	-	3	3	1.5
8	20CE6L12	PCC LAB	Geographical Information Systems Lab	-	-	3	3	1.5
9	20CE6S13	SC	Soft Skills	-	-	4	4	2
10	20CE6M14	MC	Disaster Management	2	-	-	-	-
Total number of credits								21.5
Internship 2 Months (Mandatory) during summer vacation								
Honors/ Minor Course				4	0	0	4	4

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Board of Studies

Dept. of Civil Engg.

DVR & Dr. HS MIC College of Technology

Kanchikachherla, Krishna Dt.

Andhra Pradesh, India – Pin : 521180.



B. TECH VII SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	
				Lecture	Tutorial	Practical		
1	Professional Elective-III			3	1	-	3	
	20CE7T01	PEC	Transportation Engineering-2					
	20CE7T02		Solid and Hazardous Management					
	20CE7T03		Bridge Engineering					
	20CE7T04		Ground Improvement Techniques.					
Professional Elective-IV				3	-	-	3	
2	20CE7T05	PEC	Water Resources Engineering-2					
	20CE7T06		Finite Element Methods					
	20CE7T07		Pavement Design					
	20CE7T08		Port and Harbour Structures					
Professional Elective-V				3	-	-	3	
3	20CE7T09	PEC	Estimation, Specification and Contracts					
	20CE7T10		Pre stressed Concrete					
	20CE7T11		Geo environmental Engineering					
	20CE7T12		Water Harvesting and Conservation.					
4	Open Elective-III			3	-	-	3	
5	Open Elective-IV			3	-	-	3	
6	20CE7T17	HSMC	Universal Human Values 2 Understanding Harmony	-	-	3	3	
7	20CE7S18	SC	ETABS	1	-	2	3	
8	20CE7I19	I	Industrial/ Research Internship					
Total number of credits								
Honors/ Minor Course				4	0	0	4	

B. TECH VIII SEMESTER

S. No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours
				Lecture	Tutorial	Practical	
1	20CE8P01	PROJ	Project	-	-	-	
Total number of credits							

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Board of Studies

Dept. of Civil Engg.

DVR & Dr. HS MIC College of Technology
Kanchikachala - Krishna Dt.



OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EE5T04	Basics of Control Systems	3	0	0	3	EEE
4	20EE5T05	Special Electrical Machines	3	0	0	3	EEE
5	20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20ME5T05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating System	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T01	Quantitative Aptitude and Reasoning	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	3D printing	3	0	0	3	ME
7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE

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8	20EC6T08	Principles of Communications	3	0	0	3	ECE
9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T01	Operations Research	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy sets	3	0	0	3	BED
16	20MB7T01	Digital Media management	3	0	0	3	DMS
17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS
18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS

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Board of Studies

Dept. of Civil Engg.

DVR & Dr. HS MIC College of Technology

Kanchikacherla, Krishna Dt.



19	20AM7T10	NoSQL Databases	3	0	0	3	AIML
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OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML

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Dept. of Civil Engg.

B. Tech in Civil Engineering

DVR & Dr. HS MIC College of Technology

Kenchikacherla, Krishna Dt.

Andhra Pradesh, India – Pin : 521180.

HONORS/MINOR COURSES OFFERED BY THE DEPARTMENT

Honors/ Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by CE Department (except for CE Students).
- Honors engineering subjects are offered to CE Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

HONORS COURSES

S. No.	Course code	Course Name	L	T	P	C
Pool-1 (Structural Engineering)						
1	20CEHN01	Pre- Stressed Concrete	4	0	0	4
2	20CEHN02	Theory of Elasticity	4	0	0	4
3	20CEHN03	Earthquake Resistant Design of Structures	4	0	0	4
4	20CEHN04	Precast and Prefabricated Structures	4	0	0	4
Pool-2 (Geo-technical Engineering)						
5	20CEHN05	Rock Mechanics	4	0	0	4
6	20CEHN06	Earth and Rock fill Dams	4	0	0	4
7	20CEHN07	Reinforced Soil Structures	4	0	0	4
8	20CEHN08	Advanced Foundation Engineering	4	0	0	4
Pool-3 (Transportation Engineering)						
9	20CEHN09	Pavement Construction and Evaluation	4	0	0	4
10	20CEHN10	Urban Transportation Planning	4	0	0	4
11	20CEHN11	Traffic Analysis	4	0	0	4
12	20CEHN12	Intelligent Transportation System	4	0	0	4
Pool-4 (Hydraulics and Water Resources Engineering)						
13	20CEHN13	River Management	4	0	0	4
14	20CEHN14	Hydraulic Structures	4	0	0	4
15	20CEHN15	Advanced Hydrology	4	0	0	4
16	20CEHN16	Environmental Impact Assessment for Water Resource Projects	4	0	0	4

MINOR COURSES

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CEMN01	Building Materials & Construction	3	1	0	4	CE
2	20CEMN02	Concrete Technology	3	1	0	4	CE
3	20CEMN03	Surveying	3	1	0	4	CE
4	20CEMN04	Traffic Engineering	3	1	0	4	CE


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Dept. of Civil Engg.

DVR & Dr. HS MIC College of Technology

Kanchikere, Mysore - 570 014

Andhra Pradesh, India. Pin : 521180.

COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE

B. TECH I SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CS1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
2	20CS1T02	BSC	Applied Chemistry	3	-	-	3	3
3	20CS1T03	HSMC	English	3	-	-	3	3
4	20CS1L04	ESC	Computer Engineering Workshop	1	-	4	3	3
5	20CS1T05	ESC	Problem Solving through C	3	-	-	3	3
6	20CS1L06	HSMC	English Communication Skills Lab	-	-	3	3	1.5
7	20CS1L07	BSC	Applied Chemistry Lab	-	-	3	3	1.5
8	20CS1L08	ESC	Problem Solving through C Lab	-	-	3	3	1.5
9	20CS1M09	MC	Environmental Science	2	-	-	2	-
								Total Credits 19.5

B. TECH II SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CS2T01	BSC	Transform Techniques	3	-	-	3	3
2	20CS2T02	BSC	Applied Physics	3	-	-	3	3
3	20CS2T03	ESC	Digital Logic Design	3	-	-	3	3
4	20CS2T04	ESC	Data Structures	3	-	-	3	3
5	20CS2T05	ESC	Python Programming	3	-	-	3	3
6	20CS2L06	BSC	Applied Physics Lab	-	-	3	3	1.5
7	20CS2L07	ESC	Data Structures Lab	-	-	3	3	1.5
8	20CS2L08	ESC	Python Programming Lab	-	-	3	3	1.5
								Total Credits 19.5


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B. TECH III SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CS3T01	BSC	Numerical Methods and Vector Calculus	3	0	0	3	3
2	20CS3T02	PCC	Object Oriented Programming through Java	3	0	0	3	3
3	20CS3T03	PCC	Data Base Management Systems	3	0	0	3	3
4	20CS3T04	PCC	Software Engineering	3	0	0	3	3
5	20CS3T05	PCC	Computer Organization	3	0	0	3	3
6	20CS3L06	PCC	Object Oriented Programming through Java Lab	0	0	3	3	1.5
7	20CS3L07	PCC	Data Base Management Systems Lab	0	0	3	3	1.5
8	20CS3L08	PCC	Software Engineering Lab	0	0	3	3	1.5
9	20CS3S09	SC	Python NumPy & Pandas	0	0	4	4	2
11	20CS3M10	MC	Constitution of India	2	0	0	2	-
Total number of credits								21.5

B. TECH IV SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CS4T01	BSC	Probability and Statistics	3	0	0	3	3
2	20CS4T02	ESC	Discrete Mathematical Structures	3	0	0	3	3
3	20CS4T03	PCC	Operating Systems	3	0	0	3	3
4	20CS4T04	PCC	Advanced Data Structures	3	0	0	3	3
5	20CS4T05	HSMC	Managerial Economics and Financial Analysis	3	0	0	3	3
7	20CS4L06	ESC	R Programming Lab	0	0	3	3	1.5
6	20CS4L07	PCC	Operating Systems Lab	0	0	3	3	1.5
8	20CS4L08	PCC	Advanced Data Structures Lab	0	0	3	3	1.5
9	20CS4S09	SC	Basic Web Programming	0	0	4	4	2
Total number of credits								21.5
Honors/Minor courses				4	0	0	-	4

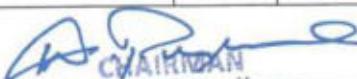

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B.TECH V SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CS5T01	PCC	Formal Languages & Automata Theory	3	0	0	3	3
2	20CS5T02	PCC	Data Warehousing & Data Mining	3	0	0	3	3
3	20CS5T03	PCC	Design and Analysis of Algorithms	3	0	0	3	3
Professional Elective-I				3	0	0	3	3
4	20CS5T04	PEC-I	Object Oriented Analysis and Design					
5	20CS5T05		Advanced Computer Architecture					
6	20CS5T06		Artificial Intelligence					
7	Open Elective-I			3	0	0	3	3
8	20CS5L10	PCC	Data Warehousing and Mining Lab Through Python	0	0	3	3	1.5
9	20CS5L11	PCC	Design and Analysis of Algorithms Lab	0	0	3	3	1.5
10	20CS5S12	SC	Mobile Application Development	0	0	4	4	2
11	20CS5M13	MC	Disaster Management	2	0	0	2	-
12	20CS5I14	I	Summer Internship	0	0	3	1.5	1.5
Total number of credits								21.5
Honors/Minor courses				4	0	0	-	4

B.TECH VI SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20CS6T01	PCC	Machine Learning	3	0	0	3	3
2	20CS6T02	PCC	Computer Networks	3	0	0	3	3
3	20CS6T03	PCC	Big Data Analytics	3	0	0	3	3
Professional Elective-II				3	0	0	3	3
4	20CS6T04	PEC-II	Software Testing Methodologies					
5	20CS6T05		Mean Stack Technologies					
6	20CS6T06		Compiler Design					
7	Open Elective-II			3	0	0	3	3
8	20CS6L10	PCC	Machine Learning Lab	0	0	3	3	1.5
9	20CS6L11	PCC	Computer Networks Lab	0	0	3	3	1.5
10	20CS6L12	PCC	Big Data Analytics Lab	0	0	3	3	1.5
11	20CS6S13	SC	Soft Skills	0	0	4	4	2
12	20CS6M14	MC	Essence of Indian traditional knowledge	2	0	0	2	-
Total number of credits								21.5
Honors/Minor courses				4	0	0	-	4


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B.TECH VII SEMESTER

S.N o	Course Code	Course Catego ry	Course Title	Hours per week			Conta ct Hours	Credi ts	
				Lectu re	Tutori al	Practi cal			
Professional Elective-III									
1	20CS7T01	PEC-III	Software Project Management	3	0	0	3	3	
2	20CS7T02		Cloud Computing						
3	20CS7T03		Cryptography & Network Security						
Professional Elective-IV									
4	20CS7T04	PEC-IV	Human Computer Interaction	3	0	0	3	3	
5	20CS7T05		Mobile Computing						
6	20CS7T06		High-Performance Computing						
Professional Elective-V									
7	20CS7T07	PEC-V	Software Architecture and Design Patterns	3	0	0	3	3	
8	20CS7T08		Adhoc & Sensor Networks						
9	20CS7T09		Social Network Analysis						
10	Open Elective-III			3	0	0	3	3	
11	Open Elective-IV			3	0	0	3	3	
8	20CS5L16	HSMC	Universal Human Values 2: Understanding Harmony	0	0	3	3	3	
10	20CS5S17	SC	Data Visualization using Tableau	0	0	4	4	2	
11	20CS5I18	I	Industrial Internship	-	-	-	-	3	
Total number of credits									
Honors/Minor courses				4	0	0	-	4	
Total number of credits									
23	23								

B.TECH VIII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
2	20CS8P01	P	Project	0	0	24	24	12
Total number of credits								
12								


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 DVR & Dr. HS MIC College of Technology
 Kanchikacherla, Krishna Dist.
 Andhra Pradesh, India - Pin: 521101

OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EE5T04	Basics of Control Systems	3	0	0	3	EEE
4	20EE5T05	Special Electrical Machines	3	0	0	3	EEE
5	20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20ME5T05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating System	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T02	Operations Research	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	3D printing	3	0	0	3	ME
7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE


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8	20EC6T08	Principles of Communications	3	0	0	3	ECE
9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T02	Quantitative Aptitude and Reasoning	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy sets	3	0	0	3	BED
16	20MB7T01	Digital Media management	3	0	0	3	DMS


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17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS
18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS
19	20AM7T10	NOSQL Databases	3	0	0	3	AIML

OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML


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 DVR & Dr. HS MIC College of Technology
 Kanchikacherla, Krishna Dt.
 Andhra Pradesh, India – Pin : 521180.

HONORS/MINOR COURSES OFFERED BY THE DEPARTMENT

Honors/ Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by CSE Department (except for CSE Students).
- Honors engineering subjects are offered to CSE Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

HONORS COURSES

S.No.	Course code	Course Name	L	T	P	C
1	20CSHN01	Unix and Shell Programming	3	1	0	4
2	20CSHN02	NOSQL databases	3	1	0	4
3	20CSHN03	Artificial Neural Networks	3	1	0	4
4	20CSHN04	Cyber Security	3	1	0	4
5		MOOC-1				2
6		MOOC-2				2

*MOOC Courses shall be identified by the departmental committee.

MINOR COURSES

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CSMN01	Database Management Systems	3	1	0	4	CSE
2	20CSMN02	Software Engineering	3	1	0	4	CSE
3	20CSMN03	Data Mining	3	1	0	4	CSE
4	20CSMN04	Artificial Intelligence	3	1	0	4	CSE
5		MOOC-1					
6		MOOC-2					

*MOOC Courses shall be identified by the departmental committee.



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ACADEMIC REGULATIONS (MIC20)

COURSE STRUCTURE

&

SYLLABUS

for

BACHELOR OF TECHNOLOGY

(B.Tech)

ELECTRONICS & COMMUNICATION ENGINEERING

(Applicable for students admitted into I Year from A.Y 2020-21 onwards & for the students admitted into II year through Lateral Entry Scheme from the A.Y 2021-22 onwards)



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Kanchikacherla, Krishna Dt, A.P. 521180.

ELECTRONICS & COMMUNICATION ENGINEERING
COURSE STRUCTURE
B.TECH I SEMESTER

S. N o.	Course Code	Course Category	Course Title	Hours per week			Contra ct Hours	Credi ts
				Lecture	Tutorial	Practical		
1	20EC1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
2	20EC1T02	BSC	Applied Physics	3	-	-	3	3
3	20EC1T03	HSMC	English	3	-	-	3	3
4	20EC1T04	ESC	Electronic Devices	2	-		2	2
5	20EC1T05	ESC	Problem solving through C	3	-	-	3	3
6	20EC1L06	HSMC	English Communication Skills Lab	-	-	3	3	1.5
7	20EC1L07	BSC	Applied Physics Lab	-	-	3	3	1.5
8	20EC1L08	ESC	Problem solving through C Lab	-	-	3	3	1.5
9	20EC1L09	ESC	Electronic Devices Lab	-	-	2	2	1
Total number of Credits				19.5				

B.TECH II SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Contra ct Hours	Credi ts
				Lecture	Tutorial	Practical		
1	20EC2T01	BSC	Transform Techniques	3	-	-	3	3
2	20EC2T02	BSC	Applied Chemistry	3	-	-	3	3
3	20EC2T03	ESC	Network Theory	3	-	-	3	3
4	20EC2T04	ESC	Basic Electrical Technology	3	-	-	3	3
5	20EC2T05	ESC	Engineering Drawing	1	-	4	5	3
6	20EC2L06	BSC	Applied Chemistry Lab	-	-	3	3	1.5
7	20EC2L07	ESC	Engineering & IT Workshop	-	-	3	3	1.5
8	20EC2L08	ESC	Basic Electrical Technology Lab	-	-	3	3	1.5
9	20EC2M09	MC	Environmental Science	3	-	-	3	0
Total number of Credits				19.5				

B.TECH III SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EC3T01	BSC	Complex Variables	3	0	0	3	3
2	20EC3T02	PCC	Probability Theory and Stochastic Processes	3	0	0	3	3
3	20EC3T03	PCC	Digital Electronics	3	0	0	3	3
4	20EC3T04	PCC	Signals & Systems	3	0	0	3	3
5	20EC3T05	PCC	Electronic Circuits Analysis	3	0	0	3	3
6	20EC3L06	PCC	Electronics Circuits Analysis Lab	0	0	3	3	1.5
7	20EC3L07	PCC	Signals & Systems Lab	0	0	3	3	1.5
8	20EC3L08	PCC	Digital Electronics Lab	0	0	3	3	1.5
9	20EC3S09	SC	Data Structures through C	0	0	4	4	2
Total number of credits							21.5	

B.TECH IV SEMESTER

S.N o.	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EC4T01	BSC	Numerical Methods and Vector Calculus	3	0	0	3	3
2	20EC4T02	ESC	Control Systems	2	0	0	2	2
3	20EC4T03	PCC	Analog Integrated Circuits	3	0	0	3	3
4	20EC4T04	PCC	Electromagnetic Waves and Transmission lines	3	0	0	3	3
5	20EC4T05	HSMC	Managerial Economics and Financial Analysis	3	0	0	3	3
6	20EC4T06	PCC	Analog and Digital Communications	3	0	0	3	3
7	20EC4L07	PCC	Analog Integrated Circuits lab	0	0	2	2	1
8	20EC4L08	PCC	Analog and Digital Communications Lab	0	0	3	3	1.5
9	20EC4S09	SC	Python Programming	0	0	4	4	2
10	20EC4M10	MC	Constitution of India	2	0	0	2	0
Total number of credits							21.5	
Honors/Minor courses							4	4

B. Tech V SEMESTER

S. N o	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credit s
				Lecture	Tutorial	Practical		
1	20EC5T01	PCC	Microprocessors and Micro-controllers	3	-	-	3	3
2	20EC5T02	PCC	Antennas and Wave Propagation	3	-	-	3	3
3	20EC5T03	ESC	Digital system Design using VHDL & Verilog	3	-	-	3	3
4			Open Elective-I	3	-	-	3	
			Professional Elective-I					
5	20EC5T07	PEC-I	Computer Architecture & Organization	3	-	-	3	3
	20EC5T08		Telematics					
	20EC5T09		Cellular and Mobile Communications					
6	20EC5L10	PCC	Microprocessors and Micro-controllers Lab	-	-	3	3	1.5
7	20EC5L11	PCC	Digital system Design using VHDL & Verilog Lab	-	-	3	3	1.5
8	20EC5S12	SC	JAVA Programming	-	-	4	4	2
9	20EC5M13	MC	Essence of Indian Traditional knowledge	2	-	-	2	-
10	20EC5I14	I	Summer internship	-	-	-	-	1.5
			Total number of credits	4	0	0	-	21.5
			Honors/Minor courses	4	0	0	-	4

B. Tech VI SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EC6T01	PCC	VLSI Design	3	-	-	3	3
2	20EC6T02	PCC	Digital Signal Processing	3	-	-	3	3
3	20EC6T03	PCC	Microwave Engineering	3	-	-	3	
			Professional Elective-II					
4	20EC6T04	PEC-II	Embedded systems	3	-	-	3	3
	20EC6T05		Electronics Measurements and Instrumentation					
	20EC6T06		Digital Modulation Techniques					
5			Open Elective-II	3	-	-	3	
6	20EC6L10	PCC LAB	Microwave Engineering and optical communications Lab	-	-	3	3	1.5
7	20EC6L11	PCC LAB	VLSI Design lab	-	-	3	3	1.5
8	20EC6L12	PCC LAB	Digital Signal Processing Lab	-	-	4	4	2
9	20EC6S13	SC	Soft Skills	2	-	-	2	-
10	20EC6M14	MC	Disaster Management					21.5
			Total number of credits	4	-	-	-	4
			Honors/Minor courses	4	0	0	-	4

B. Tech VII SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits						
				Lecture	Tutorial	Practical								
Professional Elective-III														
1	20EC7T01	PEC-III	CMOS Analog IC Design	3	0	0	3	3						
	20EC7T02		Data Communications And Networks											
	20EC7T03		Information theory and Coding											
Professional Elective-IV														
2	20EC7T04	PEC-IV	Digital Image processing	3	0	0	3	3						
	20EC7T05		Low power VLSI Design											
	20EC7T06		Optical Communications											
Professional Elective-V														
3	20EC7T07	PEC-V	Radar Engineering	3	0	0	3	3						
	20EC7T08		Embedded real time Operating Systems											
	20EC7T09		Satellite Communications											
Open Elective-III														
Open Elective-IV														
6	20EC7T16	HSMC	Universal Human values 2 Understanding Harmony	-	-	-	-	-						
7	20EC7S17	SC	Internet of things applications with Latest Boards	-	-	-	-	-						
8	20EC7I18	I	Industrial Internship	-	-	-	-	-						
Total number of credits														
Honors/Minor courses														

B. Tech VIII SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EC8P01	PROJ	Project work	-	-	-	-	12

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OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EEST04	Basics of Control Systems	3	0	0	3	EEE
4	20EEST05	Special Electrical Machines	3	0	0	3	EEE
5	20MEST04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20MEST05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating System	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T01	Quantitative Aptitude and Reasoning	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	3D printing	3	0	0	3	ME
7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE
8	20EC6T08	Principles of Communications	3	0	0	3	ECE
9	20EC6T09	Microcontrollers and its Applications	3	0	0	3	ECE

10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T01	Operations Research	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electrical Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy set	3	0	0	3	BED
16	20MB7T01	Digital Media management	3	0	0	3	DMS
17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS
18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS
19	20AM7T10	NoSQL Databases	3	0	0	3	AIML

OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20METT12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T13	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T13	Deep Learning	3	0	0	3	AIML

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Dept. of Electronics & Communications Engg.
DVR & Dr. HS MIC College of Technology
Kanchikacherla, Krishna Dt.
Andhra Pradesh, India - Pin : 521180.

HONORS/ MINOR COURSES OFFERED BY THE DEPARTMENT

Honors/ Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by ECE Department (except for ECE Students).
- Honors engineering subjects are offered to ECE Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

HONORS COURSES

S.No.	Course code	Course Name	L	T	P	C
Pool-1						
1	20ECHN01	Micro Electronic Devices				4 0 0 4
2	20ECHN02	Wireless sensor Networks				4 0 0 4
3	20ECHN03	CMOS Digital IC Applications				4 0 0 4
4	20ECHN04	Image and Video Processing				4 0 0 4
Pool-2						
5	20ECHN05	Analog VLSI Design				4 0 0 4
6	20ECHN06	Spread spectrum Communications				4 0 0 4
7	20ECHN07	Advanced Digital Signal processing				4 0 0 4
8	20ECHN08	Optical Networks				4 0 0 4
Pool-3						
9	20ECHN09	VLSI Signal Processing				4 0 0 4
10	20ECHN10	Wireless Communications				4 0 0 4
11	20ECHN11	Adaptive Signal Processing				4 0 0 4
12	20ECHN12	Software Design Radio				4 0 0 4
Pool-4						
13	20ECHN13	FPGA Design				4 0 0 4
14	20ECHN14	DSP Processors & Architecture				4 0 0 4
15	20ECHN15	Soft Computing Techniques				4 0 0 4
16	20ECHN16	RF and Mixed signals Circuits				4 0 0 4

MINOR COURSES

S.N. o.	Course code	Course Name	L	T	P	C	Offered by
1	20ECMN01	Systems and Signal Processing	4	0	0	4	ECE
2	20ECMN02	Networks and Transmission Lines	4	0	0	4	ECE
3	20ECMN03	Modulation Techniques	4	0	0	4	ECE
4	20ECMN04	Analog Electronics	4	0	0	4	ECE
5	20ECMN05	Sensors and Actuators	4	0	0	4	ECE
6	20ECMN06	Antenna Theory	4	0	0	4	ECE
7	20ECMN07	Digital Electronics	4	0	0	4	ECE
8	20ECMN08	Mobile Communications	4	0	0	4	ECE
9	20ECMN09	Advanced Microcontrollers	4	0	0	4	ECE
10	20ECMN10	Statistical Signal Processing	4	0	0	4	ECE
11	20ECMN11	Mixed System Design	4	0	0	4	ECE
12	20ECMN12	Nano Technology	4	0	0	4	ECE

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ACADEMIC REGULATIONS (MIC20)

COURSE STRUCTURE

&

SYLLABUS

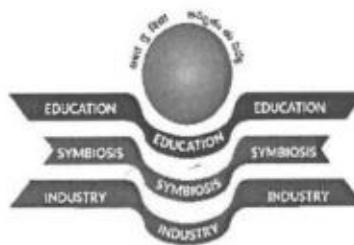
for

BACHELOR OF TECHNOLOGY

(B.Tech)

ELECTRICAL & ELECTRONICS ENGINEERING

(Applicable for students admitted into I Year from A.Y 2020-21 onwards & for the students admitted into II year through Lateral Entry Scheme from the A.Y 2021-22 onwards)



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Kanchikacherla, Krishna Dt, A.P. 521180.



ELECTRICAL & ELECTRONICS ENGINEERING
COURSE STRUCTURE
B. TECH I SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EE1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
2	20EE1T02	BSC	Applied Physics	3	-	-	3	3
3	20EE1T03	HSMC	English	3	-	-	3	3
4	20EE1T04	ESC	Basic Mechanical Engineering	3	-	-	3	3
5	20EE1T05	ESC	Engineering Graphics	1	-	4	5	3
6	20EE1L06	HSMC	English Communication Skills Lab	-	-	3	3	1.5
7	20EE1L07	BSC	Applied Physics Lab	-	-	3	3	1.5
8	20EE1L08	ESC	Electrical Engineering Workshop	-	-	3	3	1.5
Total number of credits								19.5

B. TECH II SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EE2T01	BSC	Transform Techniques	3	-	-	3	3
2	20EE2T02	BSC	Applied Chemistry	3	-	-	3	3
3	20EE2T03	ESC	Electrical Circuit Analysis – I	3	-	-	3	3
4	20EE2T04	ESC	Power Systems-I	3	-	-	3	3
5	20EE2T05	ESC	Problem Solving Through C	3	-	-	3	3
6	20EE2L06	BSC	Applied Chemistry Lab	-	-	3	3	1.5
7	20EE2L07	ESC	Engineering & IT Workshop	-	-	3	3	1.5
8	20EE2L08	ESC	Problem Solving Through C Lab	-	-	3	3	1.5
9	20EE2M09	MC	Environmental Science	2	-	-	2	-
Total number of credits								19.5



B. Tech III SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EE3T01	BSC	Numerical Methods and Vector Calculus	3	-	-	3	3
2	20EE3T02	PCC	Electrical Circuit Analysis - II	3	-	-	3	3
3	20EE3T03	PCC	Analog Electronics-I	3	-	-	3	3
4	20EE3T04	PCC	Electrical Machines -I	3	-	-	3	3
5	20EE3T05	PCC	Electromagnetic Fields	3	-	-	3	3
6	20EE3L06	PCC	Electrical Circuits Lab	-	-	3	3	1.5
7	20EE3L07	PCC	Electrical Machines Lab- I	-	-	3	3	1.5
8	20EE3L08	PCC	Analog Electronics Lab	-	-	3	3	1.5
9	20EE3S09	SC	Python Programming	-	-	4	4	2
Total number of credits								21.5

B. Tech IV SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EE4T01	BSC	Complex Variables and Statistical Methods	3	-	-	3	3
2	20EE4T02	PCC	Electrical Machines - II	3	-	-	3	3
3	20EE4T03	PCC	Electrical Measurements	3	-	-	3	3
4	20EE4T04	PCC	Power Systems -II	3	-	-	3	3
5	20EE4T05	HSMC	Managerial Economics and Financial Analysis	3	-	-	3	3
6	20EE4L06	PCC	Electrical Machines Lab-II	-	-	3	3	1.5
7	20EE4L07	PCC	Electrical Measurements Lab	-	-	3	3	1.5
8	20EE4L08	ESC	Data structures through C Lab	-	-	3	3	1.5
9	20EE4S09	SC	Introduction to MATLAB	-	-	4	4	2
10	20EE4M10	MC	Constitution of India	2	-	-	2	-
Total number of credits								21.5

Internship 2 Months (Mandatory) during summer vacation

Honors/Minor courses	4	0	0	-	4
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B. Tech V SEMESTER

S.N o	Course Code	Course Catego ry	Course Title	Hours per week			Total Contac t Hours	Credit s
				Lecture	Tutorial	Practical		
1	20EE5T01	PCC	Control Systems	3	-	-	3	3
2	20EE5T02	PCC	Switchgear and Protection	3	-	-	3	3
3	20EE5T03	ESC	Analog Electronics - II	3	-	-	3	3
4			Open Elective - I	3	-	-	3	3
			Professional Elective -I					
5	20EE5T06	PEC-I	AI Techniques in Electrical Engineering	3	-	-	3	3
	20EE5T07		Digital Electronics					
	20EE5T08		Programmable Logic Controllers and Applications					
	20EE5T09		VLSI Design					
6	20EE5L10	PCC LAB	Control Systems Lab	-	-	3	3	1.5
7	20EE5L11	PCC LAB	Electrical Simulation Lab	-	-	3	3	1.5
8	20EE5S12	SC	JAVA Programming	-	-	4	4	2
9	20EE5M13	MC	Essence of Indian Traditional knowledge	2	-	-	2	-
	20EE5I14	I	Summer Internship	-	-	-	-	1.5
Total number of credits								21.5
Honors/Minor courses				4	0	0	-	4

B. Tech VI SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20EE6T01	PCC	Microprocessors and Micro controllers	3	-	-	3	3
2	20EE6T02	PCC	Power system Operation and Control	3	-	-	3	3
3	20EE6T03	PCC	Power Electronics	3	-	-	3	3
			Professional Elective-II					
4	20EE6T04	PEC-II	Digital control systems	3	-	-	3	3
	20EE6T05		Power quality					
	20EE6T06		Renewable and Distributed Energy Technologies					
	20EE6T07		Utilisation of Electrical Energy					
5			Open Elective - II	3	-	-	3	3
6	20EE6L10	PCC LAB	Microprocessors and Micro Controllers Lab	-	-	3	3	1.5
7	20EE6L11	PCC LAB	Power Systems Lab	-	-	3	3	1.5
8	20EE6L12	PCC LAB	Power Electronics Lab	-	-	3	3	1.5
9	20EE6S13	SC	Soft Skills	-	-	4	4	2
10	20EE6M14	MC	Disaster Management	2	-	-	2	-
Total number of credits								21.5
Honors/Minor courses				4	-	-	-	4



B. Tech VII SEMESTER

S.N o	Course Code	Course Catego ry	Course Title	Hours per week			Conta ct Hours	Credi ts	
				Lectu re	Tutori al	Practi cal			
Professional Elective-III									
1	20EE7T01	PEC-III	Power Electronic Control of Electric Drives	3	0	0	3	3	
	20EE7T02		High Voltage Engineering						
	20EE7T03		Smart Grid Technologies						
	20EE7T04		Advanced control systems						
Professional Elective -IV									
2	20EE7T05	PEC-IV	Digital Signal Processing	3	0	0	3	3	
	20EE7T06		Special electrical machines						
	20EE7T07		HVDC & FACTS						
	20EE7T08		Evolutionary Algorithms and Applications						
Professional Elective -V									
3	20EE7T09	PEC-V	IoT Applications in Electrical Engineering	3	0	0	3	3	
	20EE7T10		Switch Mode Power Conversion						
	20EE7T11		Electric Vehicles						
	20EE7T12		Electrical Distribution Systems						
4	Open Elective-III			3	0	0	3	3	
5	Open Elective-IV			3	0	0	3	3	
6	20EE7T17	HSMC	Universal Human Values 2: Understanding Harmony	0	0	3	3	3	
7	20EE7S18	SC	Electrical CAD	0	0	4	4	2	
8	20EE7I19	I	Industrial Internship	-	-	-	-	3	
Total number of credits								23	
Honors/Minor courses				4	0	0	-	4	

B. Tech VIII SEMESTER

S.N o	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credit s
				Lecture	Tutorial	Practical		
1	20EE8P01	PROJ	Project work	-	-	-	-	12
Total number of credits							12	


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OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EE5T04	Basics of Control Systems	3	0	0	3	EEE
4	20EE5T05	Special Electrical Machines	3	0	0	3	EEE
5	20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20ME5T05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating System	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T01	Quantitative Aptitude and Reasoning	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	3D printing	3	0	0	3	ME
7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE



8	20EC6T08	Principles of Communications	3	0	0	3	ECE
9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T01	Operations Research	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy sets	3	0	0	3	BED
16	20MB7T01	Digital Media management	3	0	0	3	DMS
17	20MB7T02	Entrepreneurship Development	3	0	0	3	DMS



18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS
19	20AM7T10	NOSQL Databases	3	0	0	3	AIML

OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML

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Dept. of Electrical & Electronics Engg.
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Andhra Pradesh, India – Pin : 521180.



HONORS/MINOR COURSES OFFERED BY THE DEPARTMENT

Honors/ Minor Course Fulfillments:

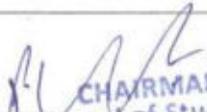
- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by CSE Department (except for CSE Students).
- Honors engineering subjects are offered to CSE Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

HONORS COURSES

S.No.	Course code	Course Name	L	T	P	C
Pool-1(Power Systems)						
1	20EEHN01	Distribution System Planning & Automation	4	0	0	4
2	20EEHN02	Substation Automation	4	0	0	4
3	20EEHN03	Advanced Power Systems	4	0	0	4
4	20EEHN04	Economic operation of Power system	4	0	0	4
Pool-2(Energy Systems)						
5	20EEHN05	Wind and Solar Energy Systems	4	0	0	4
6	20EEHN06	Grid Integration of Renewable Energy Systems	4	0	0	4
7	20EEHN07	SCADA and Energy Management Systems	4	0	0	4
8	20EEHN08	Energy Storage Systems	4	0	0	4
Pool-3(Control Systems)						
9	20EEHN09	Control Systems Design	4	0	0	4
10	20EEHN10	Modern Control Systems	4	0	0	4
11	20EEHN11	Advanced Control Systems	4	0	0	4
12	20EEHN12	Industrial Process Control	4	0	0	4
Pool-4(Power Electronics)						
13	20EEHN13	Advanced Power Converters	4	0	0	4
14	20EEHN14	Modelling and Analysis of Electrical Machines	4	0	0	4
15	20EEHN15	Custom Power Devices	4	0	0	4
16	20EEHN16	Automotive Power Electronics	4	0	0	4

MINOR COURSES

S.N o.	Course code	Course Name	L	T	P	C	Offered by
1	20EEMN01	Basics of Power Systems	4	0	0	4	EEE
2	20EEMN02	Basics of Power Electronics	4	0	0	4	EEE
3	20EEMN03	Fundamentals of Electrical and Electronic Measurements	4	0	0	4	EEE
4	20EEMN04	Basics of Electrical Machines(Except ECE & ME)	4	0	0	4	EEE
5	20EEMN05	Fundamentals of Electrical Circuits(Except ECE)	4	0	0	4	EEE
6	20EEMN06	Electrical Safety	4	0	0	4	EEE


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DVR & Dr. HS MIC College of Technology

Kanchikacherla, Krishna Dt.

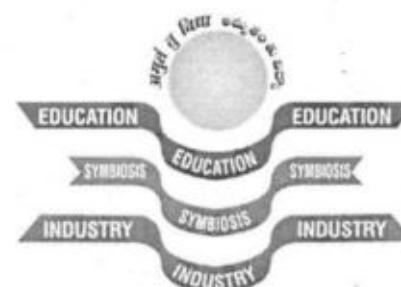
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ACADEMIC REGULATIONS COURSE STRUCTURE AND DETAILED SYLLABUS

INFORMATION TECHNOLOGY

B.Tech Four Year Degree Course

(Applicable for the batches admitted from 2020-21)



DEVINENI VENKATA RAMANA & Dr. HIMASEKHAR

MIC COLLEGE OF TECHNOLOGY

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)

Kanchikacherla, Krishna District, AP-521180

**INFORMATION TECHNOLOGY
COURSE STRUCTURE
B. TECH I SEMESTER**

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20IT1T01	BSC	Linear Algebra and Differential Equations	3	-	-	3	3
2	20IT1T02	BSC	Applied Chemistry	3	-	-	3	3
3	20IT1T03	HSMC	English	3	-	-	3	3
4	20IT1L04	ESC	Computer Engineering Workshop	1	-	4	3	3
5	20IT1T05	ESC	Problem Solving through C	3	-	-	3	3
6	20IT1L06	HSMC	English Communication Skills Lab	-	-	3	3	1.5
7	20IT1L07	BSC	Applied Chemistry Lab	-	-	3	3	1.5
8	20IT1L08	ESC	Problem Solving through C Lab	-	-	3	3	1.5
9	20IT1M09	MC	Environmental Science	2	-	-	2	-
Total Number of Credits				19.5				

B. TECH II SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20IT2T01	BSC	Transform Techniques	3	-	-	3	3
2	20IT2T02	BSC	Applied Physics	3	-	-	3	3
3	20IT2T03	ESC	Digital Logic Design	3	-	-	3	3
4	20IT2T04	ESC	Data Structures	3	-	-	3	3
5	20IT2T05	ESC	Python Programming	3	-	-	3	3
6	20IT2L06	BSC	Applied Physics Lab	-	-	3	3	1.5
7	20IT2L07	ESC	Data Structures Lab	-	-	3	3	1.5
8	20IT2L08	ESC	Python Programming Lab	-	-	3	3	1.5
Total Number of Credits				19.5				

B. TECH III SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20IT3T01	BSC	Numerical Methods and Vector Calculus	3	0	0	3	3
2	20IT3T02	PCC	Object Oriented Programming through Java	3	0	0	3	3
3	20IT3T03	PCC	Data Base Management Systems	3	0	0	3	3
4	20IT3T04	PCC	Software Engineering	3	0	0	3	3
5	20IT3T05	PCC	Computer Organization	3	0	0	3	3
6	20IT3L06	PCC	Object Oriented Programming through Java Lab	0	0	3	3	1.5
7	20IT3L07	PCC	Data Base Management Systems Lab	0	0	3	3	1.5
8	20IT3L08	PCC	Software Engineering Lab	0	0	3	3	1.5
9	20IT3S09	SC	Basic Web Programming	0	0	4	4	2
10	20IT3M10	MC	Constitution of India	2	-	-	2	-
Total number of credits							21.5	

B. TECH IV SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20IT4T01	BSC	Probability and Statistics	3	0	0	3	3
2	20IT4T02	ESC	Discrete Mathematical Structures	3	0	0	3	3
3	20IT4T03	PCC	Operating Systems	3	0	0	3	3
4	20IT4T04	PCC	Advanced Data Structures	3	0	0	3	3
5	20IT4T05	HSMC	Managerial Economics and Financial Analysis	3	0	0	3	3
6	20IT4L06	ESC	R Programming Lab	0	0	3	3	1.5
7	20IT4L07	PCC	Operating Systems Lab	0	0	3	3	1.5
8	20IT4L08	PCC	Advanced Data Structures Lab	0	0	3	3	1.5
9	20IT4S09	SC	Mobile Application Development	0	0	4	4	2
Total number of credits							21.5	

Honors/Minor courses

4 0 0 - 4

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B.TECH V SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20ITST01	PCC	Formal Languages & Automata Theory	3	0	0	3	3
2	20ITST02	PCC	Data Warehousing & Data Mining	3	0	0	3	3
3	20ITST03	PCC	Computer Networks	3	0	0	3	3
Professional Elective-I				3	0	0	3	3
4	20ITST04	PEC-I	Computer Graphics					
5	20ITST05		E-Commerce					
6	20ITST06		Software Testing Methodologies					
Open Elective-I				3	0	0	3	3
7	20IT5L09	PCC	Computer Networks Lab	0	0	3	3	1.5
8	20IT5L10	PCC	Data Warehousing and Mining Lab Through Python	0	0	3	3	1.5
9	20ITSS11	SC	Testing Tools	0	0	4	4	2
10	20IT5M12	MC	Disaster Management	2	0	0	2	-
11	20IT5I13	I	Internship	0	0	0	1.5	1.5
Total number of credits							21.5	
Honors/Minor course				4	0	0	-	4

B.TECH VI SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20IT6T01	PCC	Machine Learning	3	0	0	3	3
2	20IT6T02	PCC	Cloud Computing	3	0	0	3	3
3	20IT6T03	PCC	Big Data Analytics	3	0	0	3	3
Professional Elective-II				3	0	0	3	3
4	20IT6T04	PEC-II	MEAN Stack Technologies					
5	20IT6T05		Compiler Design					
6	20IT6T06		Software Architecture and Design patterns					
Open Elective-II				3	0	0	3	3
7	20IT6L09	PCC	Machine Learning Lab	0	0	3	3	1.5
8	20IT6L10	PCC	Cloud Computing Lab	0	0	3	3	1.5
9	20IT6L11	PCC	Hadoop Lab	0	0	3	3	1.5
10	20IT6S12	SC	Soft Skills	0	0	4	4	2
11	20IT6M13	MC	Essence of Indian traditional knowledge	2	0	0	2	-
Total number of credits							21.5	
Honors/Minor courses				4	0	0	-	4

B.TECH VII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Contact Hours	Credits
				Lecture	Tutorial	Practical		
Professional Elective-III								
1	20IT7T01	PEC-III	Intelligent Agents	3	0	0	3	3
2	20IT7T02		Mobile Computing					
3	20IT7T03		Software Project Management					
Professional Elective-IV								
4	20IT7T04	PEC-IV	Neural Networks and Deep Learning	3	0	0	3	3
5	20IT7T05		Information Security					
6	20IT7T06		Business Intelligence					
Professional Elective-V								
7	20IT7T07	PEC-V	Ethical Hacking	3	0	0	3	3
8	20IT7T08		Information Retrieval Systems					
9	20IT7T09		Internet of Things					
Open Elective-III								
10				3	0	0	3	3
Open Elective-IV								
11				3	0	0	3	3
12	20IT7T14	HSMC	Universal Human Values 2: Understanding Harmony	0	0	3	3	3
13	20IT7S15	SC	Data Visualization using Tableau	0	0	4	4	2
14	20IT7I16	I	Industrial Internship	-	-	-	-	3
Total number of credits							23	
Honors/Minor courses							4	0

B.TECH VIII SEMESTER

S.No	Course Code	Course Category	Course Title	Hours per week			Total Contact Hours	Credits
				Lecture	Tutorial	Practical		
1	20IT8P01	P	Project	0	0	0	10	12
Total number of credits								

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Board of Studies
Dept. of Information Technology
DVR & Dr. HS MIC College of Technology
Kanchikacherla, Krishna Dt.
Andhra Pradesh, India – Pin : 521180.

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OPEN ELECTIVE -I:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE5T04	Architecture and Town Planning	3	0	0	3	CE
2	20CE5T05	Elements of Civil Engineering	3	0	0	3	CE
3	20EE5T04	Basics of Control Systems	3	0	0	3	EEE
4	20EE5T05	Special Electrical Machines	3	0	0	3	EEE
5	20ME5T04	Design Thinking & Product Innovation	3	0	0	3	ME
6	20ME5T05	Nanotechnology	3	0	0	3	ME
7	20EC5T04	Linear System Analysis	3	0	0	3	ECE
8	20EC5T05	Digital Logic Design	3	0	0	3	ECE
9	20EC5T06	Solid State Devices	3	0	0	3	ECE
10	20CS5T07	Introduction to Artificial Intelligence	3	0	0	3	CSE
11	20CS5T08	Operating System	3	0	0	3	CSE
12	20CS5T09	Software Engineering	3	0	0	3	CSE
13	20IT5T07	Computer Networks	3	0	0	3	IT
14	20IT5T08	Computer Graphics	3	0	0	3	IT
15	20HS5T02	Operations Research	3	0	0	3	BED
16	20MB5T01	Principles of Management	3	0	0	3	DMS
17	20MB5T02	Technology Management	3	0	0	3	DMS
18	20AD5T07	Foundations of Data Science	3	0	0	3	AIDS
19	20AM5T07	Introduction to Machine Learning	3	0	0	3	AIML

OPEN ELECTIVE -II:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE6T08	Remote Sensing and GIS	3	0	0	3	CE
2	20CE6T09	Environmental Impact Assessment	3	0	0	3	CE
3	20EE6T08	Renewable Energy Sources	3	0	0	3	EEE
4	20EE6T09	Energy Audit, Conservation and Management	3	0	0	3	EEE
5	20ME6T07	Industrial Robotics	3	0	0	3	ME
6	20ME6T08	3D printing	3	0	0	3	ME
7	20EC6T07	Electronic Circuits and Networks	3	0	0	3	ECE

8	20EC6T08	Principles of Communications	3	0	0	3	ECE
9	20EC6T09	Microcontrollers & its Applications	3	0	0	3	ECE
10	20CS6T07	Introduction to Machine Learning	3	0	0	3	CSE
11	20CS6T08	Information Security	3	0	0	3	CSE
12	20CS6T09	Agile Technologies	3	0	0	3	CSE
13	20IT6T07	Fundamentals of Machine Learning	3	0	0	3	IT
14	20IT6T08	Database Management Systems	3	0	0	3	IT
15	20HS6T02	Quantitative Aptitude & Reasoning	3	0	0	3	BED
16	20MB6T01	Organizational Behaviour	3	0	0	3	DMS
17	20MB6T02	Project Management	3	0	0	3	DMS
18	20AD6T07	Visual Analytics	3	0	0	3	AIDS
19	20AM6T07	Big data Analytics	3	0	0	3	AIML

OPEN ELECTIVE -III:

S. No.	Course code	Course Name	L	T	P	C	Offered by
1	20CE7T13	Construction Technology and Management	3	0	0	3	CE
2	20CE7T14	Green Buildings	3	0	0	3	CE
3	20EE7T13	Concept of Power System Engineering	3	0	0	3	EEE
4	20EE7T14	Instrumentation	3	0	0	3	EEE
5	20ME7T10	Green Engineering Systems	3	0	0	3	ME
6	20ME7T11	Hybrid Electric Vehicles	3	0	0	3	ME
7	20EC7T10	Data Communications	3	0	0	3	ECE
8	20EC7T11	Mechatronics	3	0	0	3	ECE
9	20EC7T12	Bio Medical Instrumentation	3	0	0	3	ECE
10	20CS7T10	Artificial Neural Networks	3	0	0	3	CSE
11	20CS7T11	Cyber Security	3	0	0	3	CSE
12	20CS7T12	Software Testing Methodologies	3	0	0	3	CSE
13	20IT7T10	Internet of Things	3	0	0	3	IT
14	20IT7T11	Computer Vision	3	0	0	3	IT
15	20HS7T01	Fuzzy sets	3	0	0	3	BED
16	20MB7T01	Digital Media management	3	0	0	3	DMS
	20EC7T12	Entrepreneurship Development	3	0	0	3	DMS

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18	20AD7T10	Data Analysis and Visualization with Python	3	0	0	3	AIDS
19	20AM7T10	NOSQL Databases	3	0	0	3	AIML

OPEN ELECTIVE -IV:

S. No.	Course Code	Course Name	L	T	P	C	Offered by
1	20CE7T15	Waste water treatment	3	0	0	3	CE
2	20CE7T16	Repair and Rehabilitation of Concrete Structures	3	0	0	3	CE
3	20EE7T15	Power Quality	3	0	0	3	EEE
4	20EE7T16	Electric Vehicles	3	0	0	3	EEE
5	20ME7T12	Micro-Electro- Mechanical Systems	3	0	0	3	ME
6	20ME7T13	Solar Energy Systems	3	0	0	3	ME
7	20EC7T13	Introduction to Embedded Systems	3	0	0	3	ECE
8	20EC7T14	Internet of Things	3	0	0	3	ECE
9	20EC7T15	Analog and Digital IC applications	3	0	0	3	ECE
10	20CS7T13	Data Analytics	3	0	0	3	CSE
11	20CS7T14	Block Chain Technology	3	0	0	3	CSE
12	20CS7T15	Software Project Management	3	0	0	3	CSE
13	20IT7T13	Cloud Computing	3	0	0	3	IT
14	20IT7T14	Business Intelligence	3	0	0	3	IT
15	20HS7T02	Polymer Chemistry	3	0	0	3	BED
16	20MB7T03	Total Engineering Quality Management	3	0	0	3	DMS
17	20MB7T04	Stress Management	3	0	0	3	DMS
18	20AD7T11	Natural Language Processing	3	0	0	3	AIDS
19	20AM7T11	Deep Learning	3	0	0	3	AIML

HONORS/MINOR COURSES OFFERED BY THE DEPARTMENT

Honors/ Minor Course Fulfillments:

- The 20 additional credits need to be acquired, 16 credits can be earned by undergoing specified courses, with each carrying 4 credits.
- The remaining 4 credits must be acquired through two online MOOCs (SWAYAM /NPTEL), which shall be domain specific, each with 2 credits and with a minimum duration of 8/12 weeks as recommended by the Board of Studies.
- Minor Engineering subjects are offered to other branches by IT Department (except for IT Students).
- Honors engineering subjects are offered to IT Students.
- The head of the department will float the list of allowed MOOC electives in each academic year, based on the list floated by MOOCs (SWAYAM/NPTEL).

MINOR COURSES

S.No.	Course code	Course Name	L	T	P	C	Offered by
1	20ITMN01	Computer Organization	3	1	0	4	IT
2	20ITMN02	Operating Systems	3	1	0	4	IT
3	20ITMN03	Database Management Systems	3	1	0	4	IT
4	20ITMN04	Internet of Things	3	1	0	4	IT
5	20ITMN05	E-Commerce	3	1	0	4	IT
6	20ITMN06	Web Technologies	3	1	0	4	IT

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