



Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum

Write description in maximum of 500 words

S.No	Regulation	Relevant Issue	Course Code	Name of the Course	Page No
1	B.Tech AR-16	Environment and Sustainability	16OE2023	Renewable Energy Sources	3
2			16HS1003	Environmental Studies	
3			16CE2005	Environmental Engineering	
4			16CE4026	Environmental Engineering –II	
5			16OE3032	Environmental Impact Assessment	
6			16OE3042	Natural Disaster Management	
7			16OE4052	Geographical information systems	
8			16CS4034	Bio-Informatics	
9			16OE3032	Environmental Impact Assessment	
10			16OE3033	Energy Audit Conservation and Management	
11			16OE4052	Geographical Information Systems	
12			16OE4053	Power Quality Management	
13			16EC4040	Nano Technology	
1	B.Tech AR-16	Professional Ethics/Human Values	16HS4005	Managerial Economics & Management Science	8
2			16HS3202	Intellectual Property Rights and Patents	
3			16OE3041	Management Information Systems (MIS)	
4			16OE4051	Project Management	
5			16OE4058	Entrepreneurial Development	
6			16CS2201	Self Study Course-1	
7			16CS2202	Self Study Course – 2*	
8			16HS2201	Professional Ethics & Morals	
9			16HS3202	Intellectual Property Rights & Patents	
1	B.Tech AR-18	Environment and Sustainability	18MCT102	Environmental Science	12
2			18IET217	Fundamentals of Material Science	
3			18IET324	Renewable Energy Sources	
4			18IET332	Environmental Impact Assessment	
5			18IET444	Geographical Information Systems	
6			18IET324	Renewable Energy Sources	
7			18BST209	Biology	
8			18CET310	Environmental Engineering-I	
9			18CEL306	Environmental Engineering Lab	
10			18CET419	Environmental Engineering -II	





1	B.Tech AR-18	Professional Ethics/Human Values	18MCT203	Constitution of INDIA	16
2			18HST402	Human Values	
3			18IET331	HRD & Organizational behavior	
4			18HST404	Managerial Economics and Management Science	
5			18IET441	Project Management	
6			18IET443	Entrepreneurial Development	
7			18HSL406	Employability Skills	
1	B.Tech AR-20	Environment and Sustainability	20MCT102	Environmental Science	19
2			20IET217	Fundamentals of Material Science	
3			20IET323	Renewable Energy Sources	
4			20CET310	Environmental Engineering	
1	B.Tech AR-20	Professional Ethics/Human Values	20MCT203	Constitution of India	21
2			20MCS204	NCC/NSS	
3			20EEP301	Community Internship	
4			20MCT101	Induction Program	
5			20CSS201	Skill Oriented Course – I	
6			20CSS202	Skill Oriented Course – II	
1	M.Tech AR-19	Environment and Sustainability	19MAC1002	Disaster Management	24
2			19MOE1001	Industrial Safety	
3			19MOE1003	Composite Materials	
1	M.Tech AR-19	Professional Ethics/Human Values	19MCC1001	Research Methodology and IPR	26
2			19MAC1001	English for Research Paper Writing	
3			19MAC1003	Constitution of India	
4			19MAC1004	Personality Development through Life Enlightenment Skills.	
5			19MCS1019	Optimization Techniques	
6			19MOE1002	Operations Research	
7			19MOE1004	Waste to Energy	
1	M.Tech AR-22	Environment and Sustainability	22MOE1001	Industrial Safety	29
2			22MOE1003	Composite Materials	
3			22MOE1004	Waste to Energy	
4			22MAC1002	Disaster Management	
1	M.Tech AR-22	Professional Ethics/Human Values	22MCC1001	Research Methodology and IPR	SISTAM College of Engineering, Srikakulam
2			22MOE1002	Operations Research	
3			22MAC1001	English for Research Paper Writing	
4			22MAC1003	Constitution of India	
5			22MAC1004	Personality Development through Life Enlightenment Skills.	





Open Elective – II

S.No.	CODE	COURSE	Offered by Dept
1	16OE2023	Renewable Energy Sources	EEE
2	16OE2024	Principles of Mechanical Measurements	MECH
3	16OE2026	Introduction to Java	CSE
4	16OE2027	Introduction to PYTHON	IT
5	16OE2028	Complex Variables	BS&H
6	16OE202A	Remote sensing	CIVIL

I YEAR - II Semester

S. No.	Subject code	Theory / Labs	L	T	P	Marks		Credits
						Int	Ext	
1	16HS1002	English communication Practice	3	0	-	30	70	3.0
2	16BS1002	Engineering Mathematics – II	3	1	-	30	70	3.5
3	16HS1003	Environmental Studies	3	0	-	30	70	3.0
4	16BS1003	Engineering Physics	3	1	-	30	70	3.5
5	16ME1002	Engineering Mechanics	3	1	-	30	70	3.5
6	16EE1004	Basic Electrical & Electronics Engineering	3	1	-	30	70	3.5
7	16BS1101	Engineering Physics Lab	-	-	3	25	50	1.5
8	16ME1101	Engineering Workshop Lab	-	-	3	25	50	1.5
9	16EE1103	Electrical & Electronics Engg. Lab	-	-	3	25	50	1.5
Total Credits			18	4	9	255	570	24.5





II YEAR- I Semester

S. No.	Subject code	Theory / Labs	L	T	P	Marks		Credits
						Int	Ext	
1	16CE2002	Strength of Materials-I	3	1	-	30	70	3.5
2	16CE2003	Fluid mechanics	3	1	-	30	70	3.5
3	16CE2004	Surveying	3	1	-	30	70	3.5
4	16CE2005	Environmental Engineering-I	3	-	-	30	70	3.0
5	16CE2006	Engineering Geology	2	-	-	30	70	2.0
6	*****	Open Elective – I	2	-	-	30	70	2.0
7	16CE2101	Strength of Material Lab	-	-	3	25	50	1.5
8	16CE2102	Surveying Lab – I	-	-	3	25	50	1.5
9	16CE2103	Engineering Geology Lab	-	-	3	25	50	1.5
10	16HS2201	Professional Ethics & Morals	2	-	-			-
Total			18	3	9	255	570	22.0

IV YEAR- I Semester

S. No.	Subject code	Theory / Labs	L	T	P	Marks		Credits
						Int	Ext	
1	16CE4025	Remote Sensing and GIS	3	1	-	30	70	3.5
2	16CE4026	Environmental Engineering –II	3	0	-	30	70	3.0
3	16HS4004	Managerial Economics & Financial Analysis	2	1	-	30	70	2.5
4	16CE4027	Estimation and Quantity Surveying	2	1	-	30	70	2.5
5	*****	Elective II	3	-	-	30	70	3.0
6	*****	Open Elective - V	2	-	-	30	70	2.0
7	16CE4112	Environmental Engineering Lab	-	-	3	25	50	1.5
8	16CE4113	Software tools for Structural Engineering Lab	-	-	3	25	50	1.5
9	16CE4114	GIS Lab (Advanced Lab)	-	-	4	25	50	2.0
10	16HS4203	Employability Skills	-	3	-	75	-	1.5
Total Credits			15	6	10	330	570	23.0





<i>Open Elective - III</i>					
1	16OE3031	Fundamentals of Fuzzy logic	5	16OE3035	Introduction to Signal Processing
2	16OE3032	Environmental Impact Assessment	6	16OE3036	Social Networks
3	16OE3033	Energy audit conservation and management (Except EEE)	7	16OE3037	Fundamentals of Computer Graphics
4	16OE3034	Elements of Workshop Technology			

Open Elective – IV

CODE	COURSE
16OE3041	Management Information Systems (MIS)
16OE3042	Natural Disaster Management
16OE3043	Special Machines
16OE3044	Introduction to Automobile Engineering
16OE3046	Simulation and Modeling
16OE3048	Sensors and Transducers

Subject Code	Elective II
16ME4030	Industrial Automation
16ME4031	Statistical Quality Control
16ME4032	Design for Manufacturing and Assembly
16ME4033	Computational Fluid Dynamics
Subject Code	Open Elective - V
16OE4051	Project Management
16OE4052	Geographical Information Systems
16OE4053	Power Quality Management
16OE4055	Basic of Mobile Communications
16OE4056	Introduction to Cloud Computing
16OE4057	Introduction to DBMS
16OE4058	Entrepreneurial Development





Elective - III	
16CS4033	Software Product Design & Management
16CS4034	Bio-Informatics
16CS4035	Advanced Operating Systems
16CS4036	Mobile Adhoc & Sensor Networks

Subject Code	Open Elective - III
16OE3031	Fundamentals of Fuzzy Logic
16OE3032	Environmental Impact Assessment
16OE3033	Energy Audit Conservation and Management
16OE3035	Introduction to Signal Processing
16OE3036	Social Networks
16OE3037	Fundamentals of Computer Graphics

Subject Code	Elective II
16ME4030	Industrial Automation
16ME4031	Statistical Quality Control
16ME4032	Design for Manufacturing and Assembly
16ME4033	Computational Fluid Dynamics
Subject Code	Open Elective - V
16OE4051	Project Management
16OE4052	Geographical Information Systems
16OE4053	Power Quality Management
16OE4055	Basic of Mobile Communications
16OE4056	Introduction to Cloud Computing
16OE4057	Introduction to DBMS
16OE4058	Entrepreneurial Development





S.No	CODE	COURSE	L	T	P	Credits
1	16EC4035	Wireless Communications	3	-	-	3.0
2	16EC4036	Radar Engineering	3	-	-	3.0
		Elective – III				
3	16EC4037	Embedded and Real time Operating systems	3	-	-	3.0
	16EC4038	EMI & EMC				
	16EC4039	Optimization Techniques				
	16EC4040	Nano Technology				
4	16EC4203	Internship	-	-	-	1.0
5	16EC4204	Project Work	-	-	-	6.0
		Total Periods	9	0	-	16.0





IV YEAR II SEMESTER								
S.No	CODE	COURSE	L	T	P	Credits	Internal	External
1	16HS4005	Managerial Economics and Management Science	3	0	0	3.0	30	70
2	16CS4032	Human Computer Interaction	3	0	0	3.0	30	70
3	xxxxxx	Elective - III	3	0	0	3.0	30	70
4	16CS4203	Internship	0	0	0	1.0	25	50
5	16CS4204	Project Work	0	0	0	6.0	60	140
Total Periods			9	0	0	16.0	175	400

S. No.	Subject code	Theory / Labs	L	T	P	Marks		Credits
						Int	Ext	
1	16CE3016	Design and Drawing of Steel Structures	4	1	-	30	70	4.5
2	16CE3017	Water Resources Engineering	3	1	-	30	70	3.5
3	16CE3018	Geotechnical Engineering –II	3	1	-	30	70	4.0
4	16CE3019	Pre-Stressed Concrete	2	-	-	30	70	2.0
5	*****	Elective I	3	-	-	30	70	3.0
6	*****	Open Elective – IV	2	-	-	30	70	2.0
7	16CE3109	Hydraulic Machinery Lab	-	-	3	25	50	1.5
8	16CE3110	Computer Aided Engineering Drawing Practice Lab	-	-	3	25	50	1.5
9	16CE3111	Geotechnical Engineering Lab	-	-	4	25	50	2.0
10	16HS3202	Intellectual Property Rights and Patents	2	-	-			-
Total Credits			19	3	10	255	570	24.0





Code	Subject	Branch Offering
16OE3041	Management Information Systems (MIS)	MBA
16OE3043	Special Machines	EEE
16OE3044	Introduction to Automobile Engineering	MECH
16OE3045	Basics of VLSI	ECE
16OE3046	Simulation and Modeling	CSE
16OE3047	Soft Computing	IT

Code	Subject	Branch Offering
16OE4051	Project Management	MBA
16OE4053	Power Quality Management	EEE
16OE4054	Fundamentals of Robotics	MECH
16OE4055	Basics of Mobile Communications	ECE
16OE4056	Introduction to Cloud Computing	CSE
16OE4057	Introduction to DBMS	IT
16OE4058	Entrepreneurial Development	MBA

Code	Subject	Branch Offering
16OE4051	Project Management	MBA
16OE4053	Power Quality Management	EEE
16OE4054	Fundamentals of Robotics	MECH
16OE4055	Basics of Mobile Communications	ECE
16OE4056	Introduction to Cloud Computing	CSE
16OE4057	Introduction to DBMS	IT
16OE4058	Entrepreneurial Development	MBA





S.No	CODE	COURSE	L	T	P	Credits	Internal	External
1	16CS2006	Computer Organization and Architecture	3	0	0	3.0	30	70
2	16CS2007	Formal Languages & Automata Theory	3	1	0	3.5	30	70
3	16CS2008	Database Management Systems	3	1	0	3.5	30	70
4	16CS2009	Operating Systems	3	0	0	3.0	30	70
5	16CS2010	Principles of Programming Languages	2	1	0	2.5	30	70
6	xxxxxxx	Open Elective – II	2	0	0	2.0	30	70
7	16CS2106	Operating Systems Lab	0	0	3	1.5	25	50
8	16CS2107	Database Management Systems Lab	0	0	3	1.5	25	50
9	16HS2102	Advanced English Communication Skills Lab	0	0	3	1.5	25	50
10	16CS2201	Self Study Course-1*	0	2	0	1.0	75	-
Total Periods			16	5	9	23.0	330	570

S.No	CODE	COURSE	L	T	P	Credits	Internal	External
1	16CS3011	UNIX Internals	3	0	0	3.0	30	70
2	16CS3012	Computer Networks	3	0	0	3.0	30	70
3	16CS3013	Software Engineering	3	1	0	3.5	30	70
4	16CS3014	Design and Analysis of Algorithms	3	1	0	3.5	30	70
5	16CS3015	Java Programming	2	1	0	2.5	30	70
6	xxxxxxx	Open Elective – III	2	0	0	2.0	30	70
7	16CS3108	UNIX Internals Lab	0	0	3	1.5	25	50
8	16CS3109	Computer Networks Lab	0	0	3	1.5	25	50
9	16CS3110	Java Programming Lab	0	0	3	1.5	25	50
10	16CS2202	Self Study Course – 2*	0	2	0	1.0	75	-
Total Periods			16	5	9	23.0	330	570





S. No.	Subject code	Theory / Labs	L	T	P	Marks		Credits
						Int	Ext	
1	16CE2002	Strength of Materials-I	3	1	-	30	70	3.5
2	16CE2003	Fluid mechanics	3	1	-	30	70	3.5
3	16CE2004	Surveying	3	1	-	30	70	3.5
4	16CE2005	Environmental Engineering-I	3	-	-	30	70	3.0
5	16CE2006	Engineering Geology	2	-	-	30	70	2.0
6	*****	Open Elective – I	2	-	-	30	70	2.0
7	16CE2101	Strength of Material Lab	-	-	3	25	50	1.5
8	16CE2102	Surveying Lab – I	-	-	3	25	50	1.5
9	16CE2103	Engineering Geology Lab	-	-	3	25	50	1.5
10	16HS2201	Professional Ethics & Morals	2	-	-			-
Total			18	3	9	255	570	22.0

S. No.	Subject code	Theory / Labs	L	T	P	Marks		Credits
						Int	Ext	
1	16CE3016	Design and Drawing of Steel Structures	4	1		30	70	4.5
2	16CE3017	Water Resources Engineering	3	1	-	30	70	3.5
3	16CE3018	Geotechnical Engineering –II	3	1	-	30	70	4.0
4	16CE3019	Pre-Stressed Concrete	2	-	-	30	70	2.0
5	*****	Elective I	3	-	-	30	70	3.0
6	*****	Open Elective – IV	2	-	-	30	70	2.0
7	16CE3109	Hydraulic Machinery Lab	-	-	3	25	50	1.5
8	16CE3110	Computer Aided Engineering Drawing Practice Lab	-	-	3	25	50	1.5
9	16CE3111	Geotechnical Engineering Lab	-	-	4	25	50	2.0
10	16HS3202	Intellectual Property Rights and Patents	2	-	-			-
Total Credits			19	3	10	255	570	24.0





S. No	Subject Code	SUBJECT	L	T	P	Credits
01	18MCT102	Environmental Science	3	0	0	0
02	18HST101	English	2	0	0	2.0
03	18BST108	Chemistry	3	1	0	4.0
04	18BST102	Differential Equations and Transform Theory	3	1	0	4.0
05	18ECT102	Network Theory	3	0	0	3.0
06	18ECT103	Electronic Circuits	2	0	0	2.0
07	18BSL102	Chemistry Lab	0	0	3	1.5
08	18HSL101	Language Proficiency Lab	0	0	3	1.5
09	18ECL101	Electronic Devices & Circuits Lab	0	0	3	1.5
10	18ESL104	Engineering Graphics & Design	0	0	4	2
TOTAL PERIODS / TOTAL CREDITS			31			21.5

***Interdisciplinary Elective – I**

Subject Code	Offered by Dept.	Interdisciplinary Elective I	Offered for Dept.
18IET211	BS&H	Transform Theory	EEE/MECH/CIVIL
18IET212	BS&H	Numerical Methods	ECE
18IET213	BS&H	Introduction to Number Theory	CSE/IT
18IET214	CIVIL	Water Shed Management	MECH
18IET215	CIVIL	Computer Aided Engineering Drawing	ECE/EEE/ CSE/IT
18IET216	EEE	Introduction to Mathematical Simulation and Modeling	All (Except EEE)
18IET217	MECH	Fundamentals of Material Science	All (Except MECH)
18IET218	MECH	Engineering Optimization Techniques	CSE/IT
18IET219	ECE	Introduction to Electronic Measurements	All (Except ECE)
18IET21A	CSE	UNIX Utilities	All (Except CSE)
18IET21B	IT	IT systems Management	All (Except IT)

Subject Code	Offered by Dept.	Interdisciplinary Elective II	Offered for Dept.
18IET321	BS&H	Fundamentals of Fuzzy Logic	All
18IET322	CIVIL	Fundamentals of Building Planning	MECH
18IET323	CIVIL	Remote Sensing	ECE/EEE/CSE/IT
18IET324	EEE	Renewable Energy Sources	All (Except EEE)
18IET325	MECH	Principles of Mechanical Measurements	ECE/EEE/CIVIL
18IET326	MECH	Linear Programming and its Applications	CSE/IT





Subject Code	Offered by Dept.	Interdisciplinary Elective III	Offered for Dept.
18IET331	MBA	HRD & Organizational behavior	All
18IET332	CIVIL	Environmental Impact Assessment	ECE/EEE/MECH
18IET333	CIVIL	GPS & Survey Methods	CSE/IT
18IET334	EEE	Energy audit Conservation and Management	All (Except EEE)
18IET335	MECH	Elements of Workshop Technology	All (Except MECH)
18IET336	ECE	Introduction to Signal Processing	EEE/MECH/CIVIL
18IET337	ECE	Fundamentals of Signals & Systems	CSE/IT
18IET338	CSE	Simulation and Modeling	All (Except CSE)
18IET339	IT	Fundamentals of Image Processing	All (Except IT)
18IET33A	TPC	Advanced Coding-II	CSE/IT
18IET33B	TPC	Competitive Programming-II	ECE/EEE/MECH/CIVIL

Subject Code	Offered by Dept.	Interdisciplinary Elective IV	Offered for Dept.
18IET441	MBA	Project Management	All (Except MECH)
18IET442	MBA	Industrial Engineering and Management	MECH
18IET443	MBA	Entrepreneurial Development	All
18IET444	CIVIL	Geographical Information Systems	All (Except CIVIL)
18IET445	EEE	Power Quality Management	All (Except EEE)
18IET446	MECH	Fundamentals of ROBOTICS	All (Except MECH)
18IET447	ECE	Basics of Mobile Cellular Communications	EEE/MECH/CIVIL
18IET448	ECE	Introduction to Wireless Networks	CSE/IT
18IET449	CSE	Introduction to Cloud Computing	All (Except CSE)
18IET44A	IT	Introduction to DBMS	All (Except CSE & IT)
18IET44B	IT	Embedded Systems	CSE





Subject Code	Offered by Dept.	Interdisciplinary Elective II	Offered for Dept.
18IET321	BS&H	Fundamentals of Fuzzy Logic	All
18IET322	CIVIL	Fundamentals of Building Planning	MECH
18IET323	CIVIL	Remote Sensing	ECE/EEE/CSE/IT
18IET324	EEE	Renewable Energy Sources	All (Except EEE)
18IET325	MECH	Principles of Mechanical Measurements	ECE/EEE/CIVIL
18IET326	MECH	Linear Programming and its Applications	CSE/IT
18IET327	ECE	Principles of Communications	All (Except ECE)
18IET328	CSE	JAVA Programming	All (Except CSE & IT)
18IET329	IT	PYTHON Programming	All (Except IT)
18IET32A	TPC	Advanced Coding-I	CSE/IT
18IET32B	TPC	Competitive Programming-I	ECE/EEE/MECH/ CIVIL

II YEAR I SEMESTER						
S.No.	CODE	COURSE	L	T	P	Credits
1	18CST202	Discrete Mathematics	3	1	0	4.0
2	18CST203	Object Oriented Programming	3	0	0	3.0
3	18CST204	Free Open Source Software	2	0	0	2.0
4	18EST206	Digital Logic Design	3	0	0	3.0
5	18BST209	Biology	3	0	0	3.0
6	18CSL202	Object Oriented Programming Through Java Lab	0	0	3	1.5
7	18CSL203	Free Open Source Software Lab	0	0	3	1.5
8	18ESL205	Digital Logic Design Lab	0	0	3	1.5
9	18MCT202	Environmental Sciences	3	0	0	0.0
Total			17	1	9	19.5

III YEAR - I Semester

Year/Sem.	Course Code	Category	Theory/Lab	L	T	P	C
III B. Tech. (1 st Sem)	18CET310	PC	Environmental Engineering-I	2	1	0	3.0
	18CET311	PC	Geotechnical Engineering-I	3	0	0	3.0
	18CET312	PC	Water Resources Engineering	3	0	0	3.0
	18CET313	PC	Structural Analysis-II	3	0	0	3.0
	18CET314	PC	Basic Reinforced Concrete Design	3	0	0	3.0
	XXXX	IE-2	Interdisciplinary Elective - 2	2	0	0	2.0
	18CEL306	PCL	Environmental Engineering Lab	0	0	3	1.5
	18CEL307	PCL	GTE LAB	0	0	3	1.5
	18HSL302	HSMC	Professional communication Skills Lab	0	0	3	1.5
Total				16	1	9	21.5





IV YEAR - I Semester

Year/Sem.	Course Code	Category	Theory/Lab	L	T	P	C
IV B. Tech. (1 st Sem)	18CET418	PC	Estimation , Costing and Quantity Surveying	2	1	0	3.0
	18CEE421	PE-2	Transportation Engineering-II (Railway, Airport and Docks and Harbors	3	0	0	3.0
	18CEE422		Pavement Analysis and Design				
	18CEE423		Design and drawing of irrigation structures				
	18CEE424		Pre stressed concrete structures				
	18CEE431	PE-3	Remote Sensing and GIS	3	0	0	3.0
	18CEE432		Earthquake Resistant Design of Structures				
	18CEE433		Watershed Management				
	18CEE434		Environmental Impact Assessment and Management				
	18CET419	PC	Environmental Engineering - II	3	0	0	3.0
	XXXX	IE - 4	Interdisciplinary Elective - 4	2	0	0	2.0
	18HSL406	Project	Employability Skills	0	0	3	1.5
	18CEL410	PCL	Geographical Information System and Computer Aided Design lab	0	0	3	1.5
18CEL411	Project	Minor Project - 2	0	0	6	3.0	
Total				13	1	12	20.0





S. No.	Subject Code	SUBJECT	L	T	P	Credits
01	18MCT203	Constitution of INDIA	3	0	0	0
02	18BST204	Complex Variables and Statistical Methods	3	0	0	3.0
03	18EST202	Programming for problem solving	3	0	0	3.0
04	18EST203	Engineering Mechanics	3	1	0	4.0
05	18ECT204	Signals & Systems	3	0	0	3.0
06	18ECT205	Electronic Circuits Analysis	3	0	0	3.0
07	18ECT206	Probability and Stochastic Processes	3	0	0	3.0
08	18ESL202	Programming for problem solving Lab	0	0	3	1.5
09	18ECL202	Electronic Circuits analysis Lab	0	0	3	1.5
TOTAL PERIODS / TOTAL CREDITS			28			22

S.No	Subject Code	Theory/Lab	L	T	P	C
1	18HST402	Human Values	2	0	0	2
2	18HST404	Managerial Economics & Management Science	3	0	0	3
3	xxxxxx	Professional elective – III	3	0	0	3
4	xxxxxx	Professional elective – IV	3	0	0	3
5	18EET417	Electrical Distribution Systems	3	0	0	3
6	xxxxxx	Interdisciplinary Elective – IV	2	0	0	2
7	18HSL406	Employability Skills	0	0	3	1.5
8	18EEL410	Professional Lab – 10 (Electrical Simulation Lab)	0	0	3	1.5
9	18EEL411	Professional Lab – 11 (Power Systems Lab)	0	0	3	1.5
Total			16	0	9	20.5

Subject Code	Offered by Dept.	Interdisciplinary Elective III	Offered for Dept.
18IET331	MBA	HRD & Organizational Behavior	All
18IET332	CIVIL	Environmental impact Assessment	ECE/EEE/MECH
18IET333	CIVIL	GPS & Survey Methods	CSE/IT
18IET334	EEE	Energy audit management and conservation	ECE/MECH/CIVIL/CSE/IT
18IET335	MECH	Elements of workshop Technology	ECE/EEE/CIVIL/CSE/IT
18IET336	ECE	Introduction to Signal Processing	EEE/MECH/CIVIL
18IET337	ECE	Fundamentals of Signals & Systems	CSE/IT
18IET338	CSE	Simulation and Modeling	ECE/EEE/MECH/CIVIL/IT
18IET339	IT	Fundamentals of Image Processing	ECE/EEE/MECH/CIVIL/CSE





S.No	Subject Code	Theory/Lab	L	T	P	C
1	18HST402	Human Values	2	0	0	2
2	18HST404	Managerial Economics & Management Science	3	0	0	3
3	xxxxxx	Professional elective – III	3	0	0	3
4	xxxxxx	Professional elective – IV	3	0	0	3
5	18EET417	Electrical Distribution Systems	3	0	0	3
6	xxxxxx	Interdisciplinary Elective – IV	2	0	0	2
7	18HSL406	Employability Skills	0	0	3	1.5
8	18EEL410	Professional Lab – 10 (Electrical Simulation Lab)	0	0	3	1.5
9	18EEL411	Professional Lab – 11 (Power Systems Lab)	0	0	3	1.5
Total			16	0	9	20.5

Subject Code	Offered by Dept.	Interdisciplinary Elective IV	Offered for Dept.
18IET441	MBA	Project Management	ECE/EEE/CIVIL/CSE/IT
18IET442	MBA	Industrial Engineering and Management	MECH
18IET443	MBA	Entrepreneurial Development	ECE/EEE/MECH/ CIVIL/CSE/IT
18IET444	CIVIL	Geographical Information Systems	ECE/EEE/MECH/ CSE/IT
18IET445	EEE	Power quality monitoring	ECE/MECH/ CIVIL/CSE/IT
18IET446	MECH	Fundamentals of ROBOTICS	ECE/EEE/ CIVIL/CSE/IT
18IET447	ECE	Basics of Mobile Cellular Communications	EEE/MECH/ CIVIL
18IET448	ECE	Introduction to Wireless Networks	CSE/IT
18IET449	CSE	Introduction to Cloud Computing	ECE/EEE/MECH/ CIVIL/IT
18IET44A	IT	Introduction to DBMS	ECE/EEE/MECH/ CIVIL
18IET44B	IT	Embedded Systems	CSE





Subject Code	Offered by Dept.	Interdisciplinary Elective IV	Offered for Dept.
18IET441	MBA	Project Management	ECE/EEE/CIVIL/CSE/IT
18IET442	MBA	Industrial Engineering and Management	MECH
18IET443	MBA	Entrepreneurial Development	ECE/EEE/MECH/ CIVIL/CSE/IT
18IET444	CIVIL	Geographical Information Systems	ECE/EEE/MECH/ CSE/IT
18IET445	EEE	Power quality monitoring	ECE/MECH/ CIVIL/CSE/IT
18IET446	MECH	Fundamentals of ROBOTICS	ECE/EEE/ CIVIL/CSE/IT
18IET447	ECE	Basics of Mobile Cellular Communications	EEE/MECH/ CIVIL
18IET448	ECE	Introduction to Wireless Networks	CSE/IT
18IET449	CSE	Introduction to Cloud Computing	ECE/EEE/MECH/ CIVIL/IT
18IET44A	IT	Introduction to DBMS	ECE/EEE/MECH/ CIVIL
18IET44B	IT	Embedded Systems	CSE

S.No	Subject Code	Theory/Lab	L	T	P	C
1	18HST402	Human Values	2	0	0	2
2	18HST404	Managerial Economics & Management Science	3	0	0	3
3	xxxxxx	Professional elective – III	3	0	0	3
4	xxxxxx	Professional elective – IV	3	0	0	3
5	18EET417	Electrical Distribution Systems	3	0	0	3
6	xxxxxx	Interdisciplinary Elective – IV	2	0	0	2
7	18HSL406	Employability Skills	0	0	3	1.5
8	18EEL410	Professional Lab – 10 (Electrical Simulation Lab)	0	0	3	1.5
9	18EEL411	Professional Lab – 11 (Power Systems Lab)	0	0	3	1.5
Total			16	0	9	20.5





Category	Code	Theory/Lab	L	T	P	C
MC	20MCT102	Environmental Science	2	0	0	0
HS	20HST101	English	3	0	0	3
BS	20BST102	Differential Equations	2	1	0	3
BS	20BST107	Chemistry	3	0	0	3
ES	20ESI102	Programming for Problem Solving	3	0	3	4.5
ES	20ESL103	Engineering Graphics & Design	1	0	4	3
HS	20HSL101	Language Proficiency Lab	0	0	3	1.5
BS	20BSL102	Chemistry Lab	0	0	3	1.5

Subject Code	Offered by Dept.	Interdisciplinary Elective – I	Offered for Dept.
20IET211	BS&H	Transform Theory	MECH/CIVIL
20IET212	BS&H	Numerical Methods	ECE/EEE
20IET213	BS&H	Introduction to Number Theory	CSE/IT
20IET214	CIVIL	Elements of building planning	MECH
20IET215	CIVIL	Remote Sensing	ECE/EEE/CSE/IT
20IET216	EEE	Mathematical Modeling and Simulation	ECE/MECH/CIVIL/CSE/IT
20IET217	MECH	Fundamentals of Material Science	ECE/EEE/CIVIL/CSE/IT
20IET218	ECE	Introduction to Electronic Measurements	EEE/MECH/CIVIL/CSE/IT
20IET219	CSE	UNIX Utilities	ECE/EEE/MECH/CIVIL
20IET21A	IT	Fundamentals of Data Structures	ECE/EEE/MECH/CIVIL
20IET21B	TPC	Advanced Coding – I	CSE/IT
20IET21C	TPC	Competitive Programming – I	ECE/EEE/MECH/CIVIL





Subject Code	Offered by Dept.	Interdisciplinary Elective –II	Offered for Dept.
20IET321	BS&H	Fundamentals of Fuzzy Logic	All
20IET322	CIVIL	Geographical Information System	ECE/EEE/MECH/CSE/IT
20IET323	EEE	Renewable energy sources	ECE/MECH/CIVIL/CSE/IT
20IET324	MECH	Fundamentals of ROBOTICS	ECE/EEE/CIVIL/CSE/IT
20IET325	ECE	Principles of communications	EEE/MECH/CIVIL/CSE/IT
20IET326	CSE	JAVA Programming	ECE/EEE/MECH/CIVIL
20IET327	IT	Introduction to DBMS	ECE/EEE/MECH/CIVIL
20IET328	TPC	Advanced Coding–II	CSE/IT
20IET329	TPC	Competitive Programming–II	ECE/EEE/MECH/CIVIL

Aditya Institute of Technology and Management, Tekkali
R20 – COURSE STRUCTURE (3rd . B.Tech.)

Civil Engineering

Year/Sem.	Category	Code	Theory/Lab	L	T	P	C
III B. Tech. (1 st Sem)	MC	20MCT305	Human Values	2	0	0	0
	PC	20CET308	Design of concrete Structures	3	0	0	3
	PC	20CET309	Transportation Engineering	3	0	0	3
	PC	20CET310	Environmental Engineering	3	0	0	3
	PE	20CEE31X	Professional Elective– I	3	0	0	3
	OE	20IET31X	Interdisciplinary Elective – II	3	0	0	3
	PC	20CEL307	Environmental Engineering Lab	0	0	3	1.5
	PC	20CEL308	Transportation Engineering Lab	0	0	3	1.5
	SC	20CES303	Skill Advanced Course – I	1	0	2	2
I/P	20CEP301	Community Internship	0	0	0	1.5	
Total				18	0	8	21.5





Category	Code	Theory/Lab	L	T	P	C
MC	20MCT203	Constitution of India	2	0	0	0
BS	20BST203	Complex Variables and Statistical Methods	3	0	0	3
PC	20EET202	D.C Machines & Transformers	2	1	0	3
PC	20EET203	Electric Circuit Theory	3	0	0	3
PC	20EET204	Electrical Measurements	3	0	0	3
PC	20EET205	Electrical Power Generation & Distribution	3	0	0	3
PC	20EEL202	D.C Machines Lab	0	0	3	1.5
PC	20EEL203	Electrical Circuits Lab	0	0	3	1.5
PC	20EEL204	Electrical Measurements Lab	0	0	3	1.5
SC	20EES201	Skill Oriented Course – I	1	0	2	2

Category	Code	Theory/Lab	L	T	P	C
MC	20MCS204	NCC/NSS	2	0	0	0
ES	20ESI204	Python Programming	3	0	3	4.5
ES	20EST203	Engineering Mechanics	3	0	0	3
PC	20EET206	A.C Machines	2	1	0	3
PC	20EET207	Control Systems	3	0	0	3
OE	20IET21X	Interdisciplinary Elective – I	3	0	0	3
PC	20EEL205	A.C Machines Lab	0	0	3	1.5
PC	20EEL206	Control Systems Lab	0	0	3	1.5
SC	20EES202	Skill Oriented Course – II	1	0	2	2
Total			15	1	11	21.5

Category	Code	Theory/Lab	L	T	P	C
MC	20MCT305	Human Values	2	0	0	0
PC	20EET308	Electro Magnetic Field Theory	3	0	0	3
PC	20EET309	Electric Power Transmission	3	0	0	3
PC	20EET310	Power Electronics	3	0	0	3
PE	20EEE31X	Professional Elective – I	3	0	0	3
OE	20IET32X	Interdisciplinary Elective – II	3	0	0	3
HS	20HSL302	Professional Communication Skills Lab	0	0	3	1.5
PC	20EEL307	Power Electronics Lab	0	0	3	1.5
SC	20EES303	Skill Advanced Course – I	1	0	2	2
I/P	20EEP301	Community Internship	0	0	0	1.5





Category	Code	Theory/Lab	L	T	P	C
MC	20MCT101	Induction Program	3 weeks			0
BS	20BST101	Linear Algebra and Calculus	2	1	0	3
BS	20BST105	Applied Physics	3	0	0	3
PC	20EET101	Electronic Devices and Circuits	3	0	0	3
ES	20EST101	Basic Electrical Engineering	3	0	0	3
ES	20ESL102	Workshop and Manufacturing practice	1	0	4	3
BS	20BSL101	Physics Lab	0	0	3	1.5
ES	20ESL101	Basic Electrical Engineering Lab	0	0	3	1.5
PC	20EEL101	Electronic Devices and Circuits Lab	0	0	3	1.5

Code	Theory/Lab	L	T	P	C
20MCT202	Environmental Science	2	0	0	0
20ESI204	Python Programming	3	0	3	4.5
20EST205	Digital Logic Design	3	0	0	3
20CST202	Discrete Mathematics	2	1	0	3
20CST203	Computer Organization & Architecture	3	0	0	3
20CST204	Object Oriented Programming	3	0	0	3
20ESL205	Digital Logic Design Lab	0	0	3	1.5
20CSL202	Object Oriented Programming through Java Lab	0	0	3	1.5
20CSS201	Skill Oriented Course - I	1	0	2	2





Code	Theory/Lab	L	T	P	C
20MCS204	NCC/NSS	2	0	0	0
20MCT205	Human Values	2	0	0	0
20BST204	Probability & Statistics with R	3	0	0	3
20CST205	Design and Analysis of Algorithms	2	1	0	3
20CST206	Database Management Systems	3	0	0	3
20CST207	Operating Systems	3	0	0	3
20IET21X	Interdisciplinary Elective – I	3	0	0	3
20BSL203	Probability & Statistics with R Programming Lab	0	0	3	1.5
20CSL203	Database Management Systems Lab	0	0	3	1.5
20CSL204	Operating Systems Lab	0	0	3	1.5
20CSS202	Skill Oriented Course – II	1	0	2	2





Subject Code	Theory/Lab	L	T	P	C
19MPE1001	Power electronic control of DC drives	3	0	0	3
19MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
19MCC1001	Research Methodology and IPR	2	0	0	2
19MAC1001 19MAC1002 19MAC1003 19MAC1004	Audit Course: 1) English for Research Paper Writing 2) Disaster Management 3) Constitution of India 4) Personality Development through Life Enlightenment Skills	2	0	0	0
19MPE1101	Electrical Drives Laboratory	0	0	4	2
19MPE1102	Power electronics systems simulation lab	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
19MPE1009	Power electronic control of AC drives	3	0	0	3
19MPE1010	Switched mode power converters	3	0	0	3
XXXXXX	Program Elective – III	3	0	0	3
XXXXXX	Program Elective – IV	3	0	0	3
XXXXXX	Program Elective – V	3	0	0	3
19MOE1001 19MOE1002 19MOE1003 19MOE1004	Open Elective: 1) Industrial Safety 2) Operations Research 3) Composite Materials 4) Waste to Energy	3	0	0	3
19MPE1103	Digital Signal Processing Lab	0	0	4	2
19MPE1201	Minor Project	0	0	4	2





Subject Code	Theory/Lab	L	T	P	C
19MPE1009	Power electronic control of AC drives	3	0	0	3
19MPE1010	Switched mode power converters	3	0	0	3
XXXXXX	Program Elective – III	3	0	0	3
XXXXXX	Program Elective – IV	3	0	0	3
XXXXXX	Program Elective – V	3	0	0	3
	Open Elective:	3	0	0	3
19MOE1001	1) Industrial Safety				
19MOE1002	2) Operations Research				
19MOE1003	3) Composite Materials				
19MOE1004	4) Waste to Energy				
19MPE1103	Digital Signal Processing Lab	0	0	4	2
19MPE1201	Minor Project	0	0	4	2





Subject Code	Theory/Lab	L	T	P	C
19MPE1001	Power electronic control of DC drives	3	0	0	3
19MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
19MCC1001	Research Methodology and IPR	2	0	0	2
19MAC1001 19MAC1002 19MAC1003 19MAC1004	Audit Course: 1) English for Research Paper Writing 2) Disaster Management 3) Constitution of India 4) Personality Development through Life Enlightenment Skills	2	0	0	0
19MPE1101	Electrical Drives Laboratory	0	0	4	2
19MPE1102	Power electronics systems simulation lab	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
19MPE1001	Power electronic control of DC drives	3	0	0	3
19MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
19MCC1001	Research Methodology and IPR	2	0	0	2
19MAC1001 19MAC1002 19MAC1003 19MAC1004	Audit Course: 1) English for Research Paper Writing 2) Disaster Management 3) Constitution of India 4) Personality Development through Life Enlightenment Skills	2	0	0	0
19MPE1101	Electrical Drives Laboratory	0	0	4	2
19MPE1102	Power electronics systems simulation lab	0	0	4	2





Subject Code	Theory/Lab	L	T	P	C
19MPE1001	Power electronic control of DC drives	3	0	0	3
19MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
19MCC1001	Research Methodology and IPR	2	0	0	2
19MAC1001 19MAC1002 19MAC1003 19MAC1004	Audit Course: 1) English for Research Paper Writing 2) Disaster Management 3) Constitution of India 4) Personality Development through Life Enlightenment Skills	2	0	0	0
19MPE1101	Electrical Drives Laboratory	0	0	4	2
19MPE1102	Power electronics systems simulation lab	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
19MPE1001	Power electronic control of DC drives	3	0	0	3
19MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
19MCC1001	Research Methodology and IPR	2	0	0	2
19MAC1001 19MAC1002 19MAC1003 19MAC1004	Audit Course: 1) English for Research Paper Writing 2) Disaster Management 3) Constitution of India 4) Personality Development through Life Enlightenment Skills	2	0	0	0
19MPE1101	Electrical Drives Laboratory	0	0	4	2
19MPE1102	Power electronics systems simulation lab	0	0	4	2

<i>Program Elective – III, IV and V (Any Three Courses can be chosen from the pool)</i>	
CODE	COURSE
19MCS1011	Cloud Computing
19MCS1012	Sensor Networks and Internet of Things
19MCS1013	Computer Vision and Image Processing
19MCS1014	Human Computer Interaction
19MCS1015	GPU Computing
19MCS1016	Digital Forensics
19MCS1017	Big Data Analytics
19MCS1018	Software Testing Methodologies
19MCS1019	Optimization Techniques



*Open Elective*

CODE	COURSE
19MOE1001	Industrial Safety
19MOE1002	Operations Research
19MOE1003	Composite Materials
19MOE1004	Waste to Energy

Open Elective

CODE	COURSE
19MOE1001	Industrial Safety
19MOE1002	Operations Research
19MOE1003	Composite Materials
19MOE1004	Waste to Energy





Subject Code	Theory/Lab	L	T	P	C
22MPE1009	Power electronic control of AC drives	3	0	0	3
22MPE1010	Switched mode power converters	3	0	0	3
XXXXXX	Program Elective – III	3	0	0	3
XXXXXX	Program Elective – IV	3	0	0	3
XXXXXX	Program Elective – V	3	0	0	3
	Open Elective:	3	0	0	3
22MOE1001	Industrial Safety				
22MOE1002	Operations Research				
22MOE1003	Composite Materials				
22MOE1004	Waste to Energy				
22MPE1103	Digital Signal Processing Lab	0	0	4	2
22MPE1201	Minor Project	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
22MPE1009	Power electronic control of AC drives	3	0	0	3
22MPE1010	Switched mode power converters	3	0	0	3
XXXXXX	Program Elective – III	3	0	0	3
XXXXXX	Program Elective – IV	3	0	0	3
XXXXXX	Program Elective – V	3	0	0	3
	Open Elective:	3	0	0	3
22MOE1001	Industrial Safety				
22MOE1002	Operations Research				
22MOE1003	Composite Materials				
22MOE1004	Waste to Energy				
22MPE1103	Digital Signal Processing Lab	0	0	4	2
22MPE1201	Minor Project	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
22MPE1009	Power electronic control of AC drives	3	0	0	3
22MPE1010	Switched mode power converters	3	0	0	3
XXXXXX	Program Elective – III	3	0	0	3
XXXXXX	Program Elective – IV	3	0	0	3
XXXXXX	Program Elective – V	3	0	0	3
	Open Elective:	3	0	0	3
22MOE1001	Industrial Safety				
22MOE1002	Operations Research				
22MOE1003	Composite Materials				
22MOE1004	Waste to Energy				
22MPE1103	Digital Signal Processing Lab	0	0	4	2
22MPE1201	Minor Project	0	0	4	2





Subject Code	Theory/Lab	L	T	P	C
22MPE1001	Power electronic control of DC drives	3	0	0	3
22MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
22MCC1001	Research Methodology and IPR	2	0	0	2
22MAC1001	Audit Course: English for Research Paper Writing				
22MAC1002	Disaster Management				
22MAC1003	Constitution of India	2	0	0	0
22MAC1004	Personality Development through Life Enlightenment Skills				
22MPE1101	Electrical Drives Laboratory	0	0	4	2
22MPE1102	Power electronics systems simulation lab	0	0	4	2





Subject Code	Theory/Lab	L	T	P	C
22MPE1001	Power electronic control of DC drives	3	0	0	3
22MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
22MCC1001	Research Methodology and IPR	2	0	0	2
22MAC1001	Audit Course: English for Research Paper Writing	2	0	0	0
22MAC1002	Disaster Management				
22MAC1003	Constitution of India				
22MAC1004	Personality Development through Life Enlightenment Skills				
22MPE1101	Electrical Drives Laboratory	0	0	4	2
22MPE1102	Power electronics systems simulation lab	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
22MPE1009	Power electronic control of AC drives	3	0	0	3
22MPE1010	Switched mode power converters	3	0	0	3
XXXXXX	Program Elective – III	3	0	0	3
XXXXXX	Program Elective – IV	3	0	0	3
XXXXXX	Program Elective – V	3	0	0	3
22MOE1001	Open Elective: Industrial Safety	3	0	0	3
22MOE1002	Operations Research				
22MOE1003	Composite Materials				
22MOE1004	Waste to Energy				
22MPE1103	Digital Signal Processing Lab	0	0	4	2
22MPE1201	Minor Project	0	0	4	2





Subject Code	Theory/Lab	L	T	P	C
22MPE1001	Power electronic control of DC drives	3	0	0	3
22MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
22MCC1001	Research Methodology and IPR	2	0	0	2
22MAC1001	Audit Course: English for Research Paper Writing	2	0	0	0
22MAC1002	Disaster Management				
22MAC1003	Constitution of India				
22MAC1004	Personality Development through Life Enlightenment Skills				
22MPE1101	Electrical Drives Laboratory	0	0	4	2
22MPE1102	Power electronics systems simulation lab	0	0	4	2

Subject Code	Theory/Lab	L	T	P	C
22MPE1001	Power electronic control of DC drives	3	0	0	3
22MPE1002	Modeling and Analysis of Electrical Machines	3	0	0	3
XXXXXX	Program Elective – I	3	0	0	3
XXXXXX	Program Elective – II	3	0	0	3
22MCC1001	Research Methodology and IPR	2	0	0	2
22MAC1001	Audit Course: English for Research Paper Writing	2	0	0	0
22MAC1002	Disaster Management				
22MAC1003	Constitution of India				
22MAC1004	Personality Development through Life Enlightenment Skills				
22MPE1101	Electrical Drives Laboratory	0	0	4	2
22MPE1102	Power electronics systems simulation lab	0	0	4	2




PRINCIPAL
PRINCIPAL
Aditya Institute of Technology
& Management
TEKKALI - 532 201

