

**Department of Electrical & Electronics Engineering** 

Bengaluru-560107

#### **COURSE OUTCOMES**

#### (2018-19)

DEPARTMENT	EEE	SEMESTER 1 COURSE 18ELE13 COURSE ID C103							
		BASIC ELECT							
	ENU								
C103.1		Analyze DC a	ind AC	circuits.					
C103.2		Identify DC	and A	C machines, d	omestic wir	ing and prote	ective devices		
		required for	particu	lar application.					
C103.3		Implement e	electric	al and electror	nagnetic law	is to solve pro	oblems on DC		
		and AC circu	its and	machines.					
C103.4	1	Explain the c	onstru	ctional and wor	king principl	e of DC and A	C machines.		
DEPARTMENT	EEE	SEMESTER	1	COURSE	18ELEL17	COURSE ID	C107		
			CODE						
COURSE TITLE		BASIC ELECT	RICAL	ENGINEERING I	ABORATOR	Y			
COURSE OUTCOM	E NO	COURSE OU	TCOM	<b>STATEMENTS</b>					
C107.1		Conduct experiments on DC and AC circuits.							
C107.2		Conduct experiments on safety aspects, wiring and consumption							
		electrical power.							
C107.3		Understand	the ba	sic concepts of	AC and DC	machines, fu	ses, MCB and		
		UPS							
C107.4		Demonstrate	e the u	sage of differen	t electrical n	neasuring instr	uments.		
DEPARTMENT	EEE	SEMESTER	3	COURSE	17MAT31	COURSE ID	C201		
				CODE					
		CODE							
COURSE TITLE		Engineering Mathematics-III							
COURSE TITLE COURSE OUTCOM	E NO	Engineering COURSE OU	Mathe TCOMI	matics-III STATEMENTS					
COURSE TITLE COURSE OUTCOM	E NO	Engineering COURSE OU Have the kn	Mathe TCOMI owled	matics-III STATEMENTS ge of Fourier s	eries, Fourie	er transforms,	Z-transforms,		
COURSE TITLE COURSE OUTCOM C201.1	ENO	Engineering COURSE OU Have the kn Calculus of v	Mathe TCOMI owled ariatio	matics-III STATEMENTS ge of Fourier s ns, Numerical a	eries, Fourie nd statistica	er transforms, I methods	Z-transforms,		
COURSE TITLE COURSE OUTCOM C201.1 C201.2	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine	Mathe TCOMI owled ariatio eering	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using	eries, Fourie nd statistica g Fourier sei	er transforms, I methods ries and Fouri	Z-transforms, er transforms		
COURSE TITLE COURSE OUTCOM C201.1 C201.2	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an	Mathe TCOMI owled ariatio eering nd stat	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods	eries, Fourie nd statistica g Fourier sei and Calculus	er transforms, I methods ries and Fouri s of Variation.	Z-transforms, er transforms		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat	Mathe TCOMI owled ariatio eering nd stat	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma	er transforms, I methods ries and Fouri s of Variation. athematics as	Z-transforms, er transforms tool.		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER	Mathe TCOMI aviatio eering nd stat e and 3	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma 17EE32	er transforms, I methods ries and Fouri s of Variation. athematics as COURSE ID	Z-transforms, er transforms tool. <b>C202</b>		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER	Mathe <b>FCOMI</b> owled ariatio eering nd stat ie and <b>3</b>	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE	eries, Fourie nd statistical g Fourier ser and Calculus cations of Ma 17EE32	er transforms, I methods ries and Fouri s of Variation. athematics as COURSE ID	Z-transforms, er transforms tool. <b>C202</b>		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu	Mathe TCOMI owled ariatio eering nd stat ie and 3 uit Ana	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma <b>17EE32</b>	er transforms, I methods ries and Fouri s of Variation. athematics as COURSE ID	Z-transforms, er transforms tool. <b>C202</b>		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO EEE E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU	Mathe TCOMI owled, ariatio eering nd stat ie and 3 Jit Ana TCOMI	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma <b>17EE32</b>	er transforms, I methods ries and Fouri s of Variation. athematics as COURSE ID	Z-transforms, er transforms tool. <b>C202</b>		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va	Mathe TCOMI owled ariatio eering nd stat ie and 3 uit Ana TCOMI rious c	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction	eries, Fourie nd statistical g Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques,	er transforms, I methods ries and Fouri of Variation. athematics as COURSE ID	Z-transforms, er transforms tool. C202 orems, Laplace		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform,	Mathe TCOMI owled ariatio eering nd stat ie and 3 iit Ana iit Ana rious c transie	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma 17EE32 techniques, of circuit o	er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b>	Z-transforms, er transforms tool. C202 orems, Laplace der switching		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions,	Mathe TCOMI owled; ariatio eering nd stat e and 3 Jit Ana TCOMI rious c transie and c	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction oncept of ser	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma <b>17EE32</b> techniques, of circuit o ies and pa	er transforms, I methods ries and Fouri s of Variation. athematics as COURSE ID network theo elements und rallel resonar	Z-transforms, er transforms tool. <b>C202</b> orems, Laplace der switching nce ,3 phase		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical at Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced	Mathe TCOMI owled ariatio eering nd stat ie and 3 iit Ana rious c transie and c system	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser , two port netw	eries, Fourie nd statistical Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit o ies and pa ork to a give	er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b> network theo elements uno rallel resonar en electrical ne	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork.		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced a Interpret th	Mathe TCOMI ariatio eering nd stat ie and 3 iit Ana rious c transie and c system e beh	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser , two port netw avior of series	eries, Fourie nd statistica Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit of ies and pa ork to a give and paralle	er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b> network theo elements uno rallel resonar en electrical ne el resonant c	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced and Interpret th elements un	Mathe TCOMI owled, ariatio eering nd stat e and 3 Lit Ana FCOMI rious c transie and c system e beh der sw	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser , two port netw avior of series itching conditio	eries, Fourie nd statistical Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit of ies and paralle and paralle ns, different	er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b> network theo elements uno rallel resonant en electrical ne el resonant c i network theo	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit rems and two		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced Interpret th elements un port networl	Mathe TCOMI owled, ariatio eering nd stat ie and sand transie and c system e beh der sw <s, lap<="" th=""><th>matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser , two port netwo avior of series itching condition lace transform f</th><th>eries, Fourie nd statistical Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit of ies and pa ork to a give and paralle ns, different for various ti</th><th>er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b> network theo elements und rallel resonar en electrical ne el resonant c network theo me functions</th><th>Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit irems and two</th></s,>	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser , two port netwo avior of series itching condition lace transform f	eries, Fourie nd statistical Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit of ies and pa ork to a give and paralle ns, different for various ti	er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b> network theo elements und rallel resonar en electrical ne el resonant c network theo me functions	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit irems and two		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2	E NO	Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical ai Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced a Interpret th elements un port network	Mathe TCOMI ariatio eering nd stat ie and 3 iit Ana rious c transie and c system e beh der sw (s, Lap sourc	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction oncept of ser , two port networ avior of series itching condition lace transform for es and networ	eries, Fourie nd statistica g Fourier ser and Calculus cations of Ma <b>17EE32</b> techniques, of circuit of ies and paralle ns, different for various ti ks, State di	er transforms, methods ries and Fouri of Variation. athematics as <b>COURSE ID</b> network theo elements und rallel resonant en electrical ne el resonant c network theo me functions fferent network	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit orems and two		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2 C202.2		Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced and Interpret th elements un port network Identify the Define Lapla	Mathe TCOMI ariatio eering nd stat e and 3 uit Ana rious c transie and c system e beh der sw (s, Lap sourc ace tra	states-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applie COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser itching condition lace transform for sta	eries, Fourie nd statistical Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit of ies and paralle ns, different for various ti ks, State di ndard test	er transforms, I methods ries and Fouri s of Variation. athematics as <b>COURSE ID</b> course ID course ID cour	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit rems and two ork theorems, and reactive		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2 C202.3		Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced s Interpret th elements un port networl Identify the Define Lapla power and th	Mathe TCOMI owled, ariatio eering nd stat ie and 3 iit Ana rious c transie and c system e beh der sw (s, Lap sourc ace tra wo por	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction ent behavior oncept of ser itching condition ace transform for stat t network para	eries, Fourie nd statistical Fourier ser and Calculus ations of Ma <b>17EE32</b> techniques, of circuit of ies and paralle ns, different for various ti ks, State di ndard test meters.	er transforms, methods ries and Fouri of Variation. athematics as <b>COURSE ID</b> network theo elements und rallel resonant en electrical ne el resonant c network theo me functions fferent netwo inputs, active	Z-transforms, er transforms tool. <b>C202</b> orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit rems and two ork theorems, and reactive		
COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C202.1 C202.2 C202.2 C202.3		Engineering COURSE OU Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform, conditions, unbalanced s Interpret th elements un port network Identify the Define Lapla power and the	Mathe TCOMI owled ariatio cering nd stat ie and iit Ana rious c transie and c system e beh der sw (s, Lap sourc ace tra wo por 3	matics-III STATEMENTS ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE lysis STATEMENTS ircuit reduction oncept of ser itching condition lace transform for stat t network paran COURSE	eries, Fourie nd statistical g Fourier ser and Calculus cations of Ma <b>17EE32</b> techniques, of circuit of ies and pa ork to a give and paralle ns, different for various ti ks, State di ndard test meters. <b>17EE33</b>	er transforms, methods ries and Fouri of Variation. athematics as <b>COURSE ID</b> network theo elements und rallel resonant en electrical ne el resonant c network theo me functions ifferent netwo inputs, active	Z-transforms, er transforms tool. C202 orems, Laplace der switching nce ,3 phase twork. ircuits, circuit ircuits, circuit rems and two ork theorems, and reactive C203		



## **Department of Electrical & Electronics Engineering**

COURSE TITLE		Transformer	s and	Generators					
COURSE OUTCOM	E NO	COURSE OU	гсомі	E STATEMENTS					
C203.1		Explain the transformers	cons s and s	truction, operation o The second operation of the second operation operat	ation of si nerators.	ingle phase,	three phase		
C203.2		Describe and	select	t various transfo	ormer conne	ctions			
C203.3		Compute th	e circu	it parameters o	f transforme	r. synchronou	s machine		
C203.4		Analyse the	nerfo	rmance of the	transforme	rs DC genera	tors and Syn		
	1	Generators	perio		transforme				
DEPARTMENT	EEE	SEMESTER	3	COURSE CODE	17EE34	COURSE ID	C204		
COURSE TITLE		Analog Elect	ronic (	Circuits					
COURSE OUTCOM	E NO	COURSE OU	гсомі	E STATEMENTS					
C204.1		Describe the	worki	ng of clippers, c	lampers, am	plifiers and os	cillators		
C204.2		Distinguish v	arious	clippers, clamp	ers, amplifie	rs and oscillat	ors for a given		
		application.							
C204.3		Design, ana	lyze a	nd solve diod	e circuits,	transistors, a	mplifiers and		
		oscillators.	,		· - · - <b>/</b>	,			
DEPARTMENT	FFF	SEMESTER	3	COURSE	17FF35		C205		
		SEMESTER	5	CODE	1/2200	COUNSEID	2205		
		Digital Syste	m Doc	ign					
		Digital System Design							
COURSE OUTCOIN						un alashua (	Se un la incetti e un el		
C205.1		Understand	the r	basic principles	of Boolea	in algebra, C	complinational,		
		Sequential c	rcuits	and Hardware L	escription L	anguage (HDL			
C205.2		Apply the di	fferent	t techniques (Be	oolean algeb	ora, K-Maps a	nd Quine –Mc		
		Clusky Meth	nods a	and MEV/VEM)	to minimi	ze the Comb	inational and		
		Sequential ci	rcuits.				-		
C205.3		Analyze ar Combinatior	nd ev nal and	aluate differe Sequential circo	ent technic uits.	ques to re	alize various		
C205.4		Design and	devel	op Combinatio	nal and Sec	quential circu	its by use of		
		conventiona	l meth	, ods and Hardwa	are Descripti	on Language (	, HDL) module.		
DEPARTMENT	EEE	SEMESTER	3	COURSE	17EE36		C206		
			-	CODE					
		Electrical an	d Flect	ronic Measurer	nents				
					incinto				
				loctrical and o	octronic ins	trumonts usor	to mossuro		
C206.1		display and r	acord t	he different elec	trical and ma	gnetic narame	to measure,		
C206.2		Compare the		ront electrical	and oloctro		t display and		
C200.2		recording ins	trumor	ats used in electric	ical and election	tronics	s, uispiay anu		
C206 2		Solvo numori	caliny	alvod in moasure	mont of rosr	activo oloctric	al paramotors		
C200.3		Applyze the				te and ence	ify respective		
C206.4		minimization	techni	ques.	i instrumer	its and spec	ily respective		
DEPARTMENT	EEE	SEMESTER	3	COURSE CODE	17EEL37	COURSE ID	C207		
COURSE TITLE		Electrical Ma	achine	s Laboratory -1			<b>I</b>		
COURSE OUTCOM	F NO	COURSE OUT	ГСОМ	E STATEMENTS					
	•	Evaluate the	nerfor	mance of trans	formers from	n the test data	obtained		
C207.1			μετισι						
C207.2		Connect and	opera	te two single ph	ase transfor	mers of differ	ent KVA rating		
		in parallel.							



# **Department of Electrical & Electronics Engineering**

C207.3		Connect sing	le pha	se transformers	for three pl	nase operatior	and phase			
		conversion.								
C207.4		Compute the	e volta	ge regulation of	synchronou	s generator us	sing the test			
		data obtaine	d in th	e laboratory.						
DEPARTMENT	EEE	SEMESTER3COURSE CODE17EEL38COURSE IDC208								
COURSE TITLE		Electronics Laboratory								
COURSE OUTCOM	E NO	COURSE OU	гсомі	E STATEMENTS						
C208.1		Design and t	est dif	ferent diode cire	cuits.					
C208.2		Design and t	est am	plifier and oscil	lator circuits	and analyze t	heir performand			
C208.3		Use universa	gates	and ICs for cod	le conversion	n and arithmet	tic operations.			
C208.4		Apply the kn	owled	ge of counters a	and sequence	e generators				
DEPARTMENT	EEE	SEMESTER	SEMESTER     5     COURSE CODE     15EE51     COURSE       Management and Entrepreneurship				C301			
COURSE TITLE		Management and Entrepreneurship								
COURSE OUTCOM	E NO	SEMESTER5COURSE CODE15EE51COURSE ID COURSE IDC30Management and EntrepreneurshipCOURSE OUTCOME STATEMENTSKnowledgeonfundamentalconceptsofManagementEntrepreneurshipUnderstanding the functions of Managers, EntrepreneursUnderstanding the functions of Managers, EntrepreneursSEMESTER5COURSE CODECOURSE IDC30MicrocontrollerCOURSE OUTCOME STATEMENTSDescribethe internal organization instruction set data to								
		CODE       CODE         Management and Entrepreneurship          COURSE OUTCOME STATEMENTS          Knowledge       on       fundamental       concepts       of       Manage         Entrepreneurship          of       Manage         Understanding the functions of Managers, Entrepreneurs an responsibilities, Compare various types of Entrepreneurs        SEMESTER       5       COURSE       COURSE ID         SEMESTER       5       COURSE       15EE52       COURSE ID         Microcontroller       CODE            Describe       the internal organization instruction set       data					gement and			
C301.1		Entrepreneu	rship				, ,			
C301.2		Understanding the functions of Managers, Entrepreneurs and th responsibilities, Compare various types of Entrepreneurs								
		responsibilit	responsibilities, Compare various types of Entrepreneurs							
DEPARTMENT	EEE	SEMESTER	5	COURSE	15EE52	COURSE ID	C302			
				CODE						
COURSE TITLE		Microcontro	ller							
COURSE OUTCOM	E NO	COURSE OU	гсомі	E STATEMENTS						
C302.1		Describe th addressing n	e inte nodes (	ernal organizat of 8051.	ion, instruc	tion set, dat	ta types and			
C302.2		Develop asse Microcontro	embly a llers.	and embedded	C programs f	for application	s of 8051			
C302.3		Analyze and	design	circuitry to inte	erface periph	nerals devices	with 8051.			
C302.4		, Work as an	rk as an individual or as a team —member to design and implement							
		projects on r	eal tim	ne embedded sy	stem applica	ations using m	icrocontroller			
DEPARTMENT	EEE	SEMESTER	5	COURSE CODE	15EE53	COURSE ID	C303			
COURSE TITLE		Power Elect	ronics							
COURSE OUTCOM	E NO	COURSE OU	гсомі	E STATEMENTS						
C202.1		Describe th	e Pov	ver devices, I	Power elect	tronics circuit	ts with their			
C303.1		characteristi	cs and	effects.						
C303.2		Compute the	e perfo	ormance param	eters of diff	erent power c	onverters and			
		power devic	es for g	given data.						
C303.3		Analyze the	behavi	or of power de	vices and po	wer converter	s for different			
		load condition	on.							
C303.4		Design the devices	trigger	ing and protec	tion circuits	for power C	onverters and			
DEPARTMENT	EEE	SEMESTER	5	COURSE CODE	15EE54	COURSE ID	C304			
COURSE TITLE	•	Signals and S	System	IS						
COURSE OUTCOM	E NO	COURSE OU	ТСОМІ	<b>STATEMENTS</b>						
6204.1		Apply the k	nowle	dge of mathen	natics and e	engineering to	analyse and			
C304.1		obtain the re	espons	e of continuous	and discrete	e system.	-			



# **Department of Electrical & Electronics Engineering**

C304.2		Analyze LTI s	system	and their prope	erties using i	mpulse respon	ise		
C304.3		Apply vario	, ous tra	ansformation	techniques	to solve di	fference and		
		differential e	quatio	ons and sketch t	, he block dia	gram			
C304.4		Analyze con	tinuou	s time and dis	crete signals	s and systems	in frequency		
		domain using Fourier analysis tools like CTFS,CTFT,DTFS and DTFT							
C304.5		Analyze disc	rete tir	, ne svstems usin	g Z-transfor	ms			
DEPARTMENT	EEE	SEMESTER	5	COURSE	15EE553	COURSE ID	C305		
		CODE							
COURSE TITLE		Estimation and costing (Professional Elective)							
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS							
		Able to exp	lain tl	he general prir	nciples invo	lved in estim	ation costing,		
C305.1		market surve	ey, pur	chase system ar	nd general id	lea about IE ru	les and act.		
C305.2		Able to calcu	late th	e load requiren	nent and size	e of the cables	for single and		
		multi-circuits	s used	in buildings witl	h protective	devices.	C		
C305.3		Able to exp	olain t	he concept of	service con	nnection and	estimate the		
		materials red	quired	for electrical ins	stallation of	power circuits.			
C305.4		Able to est	imate	the materials	required for	or electrical i	nstallation of		
		overhead tra	ansmiss	sion & dist	ribution line	s and substatio	ons.		
C305.5		Design the optimized lighting system for residential, commercial, indust applications in order to save electrical energy					cial, industrial		
		applications in order to save electrical energy							
DEPARTMENT	EEE	SEMESTER	SEMESTER5COURSE15EE562COURSE IDC306						
				CODE					
COURSE TITLE		Programmal	ole Log	ic Controllers (	Open Electiv	ve)			
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS					
C306.1		Understand	the im	portance of PLC	2, its archited	cture and the o	convections to		
		be followed.							
C306.2		Able to analy	/ze the	instructions an	d rules used	to build the p	rogram.		
C306.3		Able to Iden	tify ap	propriate opera	itors, delay o	counter instruc	ctions and use		
C20C 4		the function	DIOCK	ulagrams			tion		
	L C C C								
DEPARTIVIENT		SEIVIESTER	5	CODE	196509	COOKSEID	C307		
		Renewable I	Energy	Sources (Open	Flective)				
	F NO		TCOM	Sources (Open	Licetivej				
		Describe the	- chall	enges involved	in identific	ration of Con	ventional and		
C307.1		Non-Conven	tional	energy sources	and discuss	the issues rela	ated to energy		
		scarcity and	its solu	ution.					
C307.2		Explain the v	workin	g principle of N	on-Conventi	onal methods	of generating		
		electricity an	nd its st	torage.			0 0		
C307.3		Calculate th	ne per	formance para	meters of	various renev	wable energy		
		systems and	discus	s its application	s.				
C307.4		Asses variou	s field	applications of I	Non-Conven	tional Energy s	sources		
DEPARTMENT	EEE	SEMESTER	5	COURSE	15EEL57	COURSE ID	C308		
				CODE					
COURSE TITLE		Microcontro	ller lat	ooratory					
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS					
C308.1		Write, simul	ate an	d debug 8051 p	rograms usi	ng assembly a	nd Embedded		
		C languages.							
C308.2		Demonstrate	e the co	ontrol of ancilla	ry devices us	sing 8051 Micr	ocontroller.		



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		(speed of a stepper motor, dc motor and the interface ADC, DAC, LCD and								
		Keypad inter	facing	with 8051)						
C308.3		Design and	imple	ment real time	embedded	l system appl	ications using			
		8051 microc	ontroll	er.		1	1			
DEPARTMENT	EEE	SEMESTER	5	COURSE CODE	15EEL58	COURSE ID	C309			
COURSE TITLE		Power electronics laboratory								
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
C309.1		List and deso and its appli	cribe v cations	arious power se 5.	emiconducto	or devices, pov	ver converters			
C309.2		Explain the o	charact	teristics of powe	er semicond	uctor devices	and operation			
C200 2				t of power ele	stropic con	vortors to cor	atral different			
C309.5		loads and co	mpute	their performa	nce paramet	ters				
DEPARTMENT	EEE	SEMESTER     7     COURSE CODE     15EE71     COURSE ID     C401       Power System Analysis-II     COURSE OUTCOME STATEMENTS     EVALUATE     EVALUATE     EVALUATE								
COURSE TITLE		Power Syste	m Ana	lysis-II		•				
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS Identify network matrices and models for solving load flow problems and perform steady state power flow analysis of power systems usin								
		Identify network matrices and models for solving load flow problems and perform stoady state, power flow analysis of power systems using								
C401.1		perform steady state power flow analysis of power systems u numerical iterative techniques.								
C401.2		Explain opti	mal o	peration of ge	enerators or	n a bus bar,	optimal unit			
		commitment	t, optir	nal scheduling f	or hydro-the	ermal system,	power system			
		security and	reliabi	lity.						
C401.3		Illustrate th	e use	of various nu	imerical tec	hniques appli	led to power			
		systems and	a num	ierical solution	of swing e	equation for	multi-machine			
C401.4		Analyze limi	t viola	tion in load flo	w. optimal	scheduling of	hvdrothermal			
		, system and s	short c	ircuit faults in p	ower system	ı.	,			
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EE72	COURSE ID	C402			
				CODE						
COURSE TITLE		Power Syste	m Pro	tection						
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
C402.1		Identify and condition in	l list power	various protec system networ	tive compo k.	nents based	on the fault			
C402.2		Understand	the c	onstruction, w	orking princ	ciple and cha	racteristics of			
		different typ	oes of	relays, circuit b	preakers and	d discuss prot	ection against			
		over voltage	s.							
C402.3		Classify and	compa	re various types	s of relays, ci	rcuit breakers	and fuses.			
C402.4		Apply conve	entiona	al and numeric	al relays to	the protectio	on of rotating			
		machines, c	ous ba	rs, transforme	rs, transmis	sion lines an	d distribution			
DEPARTMENT	FFF	SEMESTEP	7	COURSE	15FF72		C403			
		JENILJIEN	<b>,</b>	CODE	1322/3					
COURSE TITLE		High Voltage	e Engin	eering			1			
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS						
	-	Evaluation o	of diele	ectric performar	nce of high	voltage equip	ment's, PD, RI			
C403.1		and corona a	as per S	Standards.	0					
C403.2		Analyze the	circu	its of AC, DC	and transi	ient voltage	and currents,			



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	Generation and Measurements.						
C403.3		Applying kn	owledg	ge of dielectric	property fo	r insulation co	pordination of
		lines and po	wer Eq	uipment's.			
C403.4		Describe the	e diele	ctric properties	s of solid, lic	quid and gase	ous insulating
		material, cau	uses of	overvoltages, c	orona and th	neir remedial r	neasures.
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EE742	COURSE ID	C404
			-	CODE			
COURSE TITLE	1	Utilization o	f Flect	ric Power (Prof	essional Flee	tive-III)	
	F NO		тсом	F STATEMENTS			
			al engi	neering princip	les in the a	nalysis of elec	trical heating
C404.1		welding ele	rtrolvs	is illumination :	and traction		inter neuting,
C404 2		Design vari	nus h	eating and lig	ting syste	ms required	for different
C+04.2		electrical an	nlicatio	cating and ing	sing syste	ins required	for uncrent
C404 2		Solvo variou		orical problems	rolated to b	opting woldin	a alactrolycic
C+04.5		illumination	and ob	erical problems		eating, weium	g, electiolysis,
C404 4			hoho	vior of bosting	alamanta	and alastric t	raction under
C404.4		Analyze the	Dena oting c	vior of fielding	g elements a		
C404 E			d anal	vita different ty	unas of hybri	d alactric vahi	iclos and their
C404.5			u allal Folimo	yze unierent ty	pes of figure		icles and their
	L E E E				1555752		C405
DEPARTIVIENT	CCC	SEIVIESTER	/	CODE	1966/97	COURSEID	C405
		Testingeneral	<b>C</b>			anter (Desferre	
COURSE IIILE		Testing and	Comm	issioning of Ele	ctrical Appa	ratus (Professi	ional Elective-
	<u> </u>		TCORA				
COURSE OUTCOIVI	ENU						
C105 1		Discuss aime	erent t	ypes of tools a	and apparat	us required to	or installation,
C405.1		maintenance	e, repa	IF WORK OF EIECT	rical equipm	ent and under	ground cables
C405.2							aning tosting
C405.2		identify the	e spe	cifications, ins	stallation a	na commissio	oning testing
C405.2		procedure o			allation and		
C405.3		Analyze the	e spec	incations, insta	allation and	testing of	the electrical
C405.4		equipment a		derground cable	es tions months		fan alaatuisal
C405.4		Decide the	testir	ig and installa	ation metho	as required	for electrical
		equipment	anu ur	luerground cap	nes dependi	ng on the col	nultion of the
	L E E E		7	COURCE	1555752		C406
DEPARTIVIENT	CCC	SEIVIESTER	/	CODE	1255723	COURSEID	C406
		Spacecraft D	ower 7	CODE	  rofossional	Elective IV()	
COURSE TITLE			TCOM	rechnologies (P	rolessional	Elective-IV)	
COURSE OUTCOIVI		COURSE OU		E STATEIVIENTS			
C406.1		Discuss the	ofolo	sing demand to	r space crait	toobhology	ns and to give
C10C 2		an overview		ctrical power sys		technology.	the status of
C406.2		Describe the	eleme	ents of a space p	photovoltaic	power system	i, the status of
C40C 2		Solar Cell tec		gies presently in	use.	haale	
L406.3		Discuss adv	ances	in both cell ar	id array teo	innology, and	solar thermo
		photovoltaid	energ	y conversion.			
C406.4		Discusses, s	pace-c	jualified compo	onents, the	array of che	micai storage
		technologies	sincluc	ing both batter	ies and fuel	cells.	
C406.5		Describe co	mpone	ents and techn	iques for a	chieving the v	various Power
		Managemen	t and	Distribution fu	nctions and	examples of	several PMAD
		configuratio	ns				



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DEPARTMENT	EEE	SEMESTER	7	COURSE	15EEL76	COURSE ID	C407			
		Power Syste	m Sim	LODE	00					
			UTCOME STATEMENTS							
		Describe the parameters of transmission line, synchronous machine, fault.								
C407 1		swing curve, load flow analysis and economic load dispatch in the power								
C407.1		system								
C407 2		Explain the	conce	nts of transmis	sion line s	vnchronous n	nachine fault			
C407.2		swing curve	load f	flow analysis an	id economic	load dispatch	in the nower			
		system	loau				ini the power			
C407 3		Apply vario	us nu	merical techni	alles to ne	erform load	flow analysis			
C407.5		economic lo	ah dis	natch problem	different ty	nes of faults	and calculate			
		various tran	smissic	on line and sync	hronous ma	chine parame	ters of a given			
		power system	m usin	g Matlab/Mipov	ver.		0.10			
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EEL77	COURSE ID	C408			
				CODE	-					
COURSE TITLE	•	Relay and H	igh Vol	tage Laborator	V					
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
6400.4		Define the	operat	ing characterist	tics of diffe	rent types of	relay, HVAC,			
C408.1		HVDC and di	fferent	tiate different d	ielectric med	dium.	•			
C408.2		Predict the o	operati	ng time of diffe	rent types o	of relay, break	down strength			
		of air and liq	uid die	electric medium	•					
C408.3		Demonstrate	e the o	perating charac	cteristics of o	different types	s of relays and			
		spark over c	haracte	eristics of air an	d liquid diel	ectric medium	and calculate			
		the capacita	nce of	parallel plate ca	pacitor and	co-axial cable.				
DEPARTMENT	EEE	SEMESTER	7	COURSE		COURSE ID	C409			
				CODE	15EEP78					
COURSE TITLE		Project Phas	e – I +	Seminar						
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
C409.1		Demonstrate	e a sou	nd technical kno	owledge of t	heir selected p	project topic.			
C409.2		Undertake p	roblen	n identification,	formulation	and solution.				
C409.3		Design engi	neerin	g solutions to	complex pr	oblems utilizi	ng a systems			
C400.4		approach		onginoors and	the comm	unity at large	in writton on			
C409.4		oral forms.	e with	i engineers and	the comm	unity at large	in written an			
C409.5		Demonstrate	e the	knowledge, s	kills and a	ttitudes of a	professional			
		engineer.		0,						
		·		M.Tech						
DEPARTMENT	EEE	SEMESTER	1	COURSE	18EEE11	COURSE ID	C101			
			_	CODE						
COURSE TITLE		Mathematic	al Met	hods in Control						
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
C101 1		Understand	the fu	ndamentals of	vector space	e and bases ir	n reference to			
		transformati	ons.							
C101.2		Solve system	n of line	ear equations us	sing direct a	nd iterative me	ethods			
C101.3		Use the idea	of Eige	en values and Ei	gen vectors	for the applica	ation of SVD.			
C101.4		Describe th	e bas	ic notions of	discrete a	nd continuou	us probability			
		distributions	•							



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C101.5		Find out responses of linear systems using statistical and probability tools							
DEPARTMENT	EEE	SEMESTER	1	COURSE	18EPS12	COURSE ID	C102		
				CODE					
COURSE TITLE		Modeling an	id Ana	lysis of Electrica	I Machines				
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS					
6102.1		Describe bas	sic con	cepts of model	ing of dc ma	achines, ac ma	achines, single		
C102.1		and three phase transformers							
C102.2		Comparison	Comparison of actual and approximate transient torque-angle						
		characteristi	cs duri	ng a 3-phase fa	ult at				
		the machine	termir	nals					
C102.3		Application of	of refe	rence frame the	eory to trans	sform three ph	nase induction		
		motors to tw	vo-pha	se. Application	, of Park's trai	nsformation to	Syn. machine		
C102.4		Model synch	ronou	s machine to pe	erform dyna	mic analysis u	nder different		
		conditions	conditions						
DEPARTMENT	EEE	SEMESTER	1	COURSE		COURSE ID	C103		
				CODE	18EPS13				
COURSE TITLE		Power Syste	m Dyn	amics (Stability	& control)		1		
COURSE OUTCOM	E NO		COURSE OUTCOME STATEMENTS						
		Apply the k	Apply the knowledge of mathematical models of synchronous machin						
C103.1		excitation s	vstem	transmission	lines and	loads for p	ower system		
		representati	on.				,		
C103.2		Analyze the	dvna	mic performan	ce(transient	stability) of	the modeled		
		power system	ms witl	h single and mu	lti-machine	environment			
C103.3		Investigate t	he dvr	namics of powe	r system wi	th and withou	t using Power		
		system			-,				
		SEMESTER 1 COURSE 18EPS14 COURSE ID C104							
DEPARTMENT	EEE	SEMESTER 1 COURSE 18EPS14 COURSE ID C104					C104		
DEPARTMENT	EEE	SEMESTER	1	COURSE CODE	18EPS14	COURSE ID	C104		
DEPARTMENT COURSE TITLE	EEE	SEMESTER	1 elaving	COURSE CODE tor Power Syst	18EPS14	COURSE ID	C104		
DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE	SEMESTER Computer R	1 elaying TCOMI	COURSE CODE g for Power Syst	18EPS14	COURSE ID	C104		
DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t	1 elaying TCOMI	COURSE CODE for Power Syst STATEMENTS	18EPS14 tem	COURSE ID	C104		
DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r	1 elaying TCOMI the imprelaying	COURSE CODE g for Power Syst STATEMENTS portance of cor g, relaying alg	18EPS14 tem nputer relay corithms, di	COURSE ID ving, Mathema gital filters a	C104 atical basis for and hardware		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization	1 elaying TCOMI the imp relaying used f	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg	18EPS14 tem nputer relay orithms, di n protectior	COURSE ID ving, Mathema gital filters a and travelling	C104 etical basis for and hardware g waves.		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the	1 elaying TCOMI the imprelaying used f e princi	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power system ple and operation	18EPS14 tem nputer relay corithms, di m protection on of differe	COURSE ID ving, Mathema gital filters a and travelling ont types of pro-	C104 atical basis for and hardware gwaves. otections used		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the for electrical	1 TCOMI the imp relaying used f princi Machi	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operationines, transmission	18EPS14 tem nputer relay orithms, di m protection on of differe on line and c	COURSE ID ving, Mathema gital filters a and travelling ent types of pro- ligital filters.	C104 atical basis for and hardware g waves. ptections used		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the for electrical Interpret dif	1 elaying TCOMI celaying used f princi Machi ferent	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation ines, transmission types of prote	18EPS14 tem nputer relay corithms, di m protection on of differe on line and c ction algorit	COURSE ID ving, Mathema gital filters a and travelling ont types of pro- ligital filters.	C104 atical basis for and hardware g waves. otections used transformers,		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the for electrical Interpret dif transmission	1 elaying TCOMI che imp relaying used f e princi Machi ferent i lines a	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation ple and operation types of prote and WAMs tech	18EPS14 tem nputer relay corithms, di m protection on of differe on line and c ction algorit niques for re	COURSE ID ving, Mathema gital filters a and travelling ont types of pro- ligital filters. hms used for elaying applica	C104 Atical basis for and hardware gwaves. Detections used transformers, tions.		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.4	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the for electrical Interpret dif transmission Discriminate	1 Elaying TCOMI che imp relaying used f e princi Machi ferent i lines a differe	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power system ple and operation ines, transmission types of prote and WAMs tech ent algorithms to	18EPS14 tem nputer relay orithms, di <u>m protection</u> on of differe on line and c ction algorit niques for re used for mad	COURSE ID ving, Mathema gital filters a and travelling ont types of pro- ligital filters. hms used for elaying applica chines and trar	C104 atical basis for and hardware g waves. otections used transformers, tions. msmission line,		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.4	EEE	SEMESTER Computer Re COURSE OU Enumerate to protective or organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying	1 Elaying TCOMI che imp relaying used f e princi Machi ferent lines a differe applic	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power system ple and operation ines, transmission types of prote and WAMs tech ent algorithms up ation of travelli	18EPS14 tem nputer relay corithms, di m protection on of differe on line and c ction algorit niques for re used for mac ng waves in	COURSE ID ving, Mathema gital filters a n and travelling ont types of pro- ligital filters. hms used for elaying applica chines and trans single and three	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, ee phase lines.		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.4 DEPARTMENT	EEE E NO	SEMESTER Computer Re COURSE OU Enumerate to protective or organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER	1 elaying TCOMI che imp relaying used f e princi ferent i lines a differe applic 1	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation types of prote and WAMs tech ent algorithms up ation of travelli COURSE	18EPS14 tem nputer relay corithms, di m protection on of differe on line and c ction algorit niques for re used for mac ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a and travelling int types of pro- ligital filters. hms used for elaying applica chines and trar single and thre COURSE ID	C104 Atical basis for and hardware gwaves. Detections used transformers, tions. hsmission line, ee phase lines. C105		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.4 DEPARTMENT	EEE E NO EEE	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER	1 rCOMI relaying relaying used f princi Machi ferent lines a differe applic 1	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation ines, transmission types of prote and WAMs tech ent algorithms to ation of travelli COURSE CODE	18EPS14 tem nputer relay orithms, di m protection on of differe on line and o ction algorit niques for re- used for mac ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a a and travelling ont types of pro- ligital filters. thms used for elaying applicat chines and transingle and three COURSE ID	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, ee phase lines. C105		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.4 DEPARTMENT COURSE TITLE	EEE E NO EEE	SEMESTER Computer Re COURSE OU Enumerate the protective or organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Elector	1 elaying TCOMI che imp relaying used f e princi Machi ferent lines a different applic 1 ronic C	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation ines, transmission types of prote and WAMs tech ent algorithms us ation of travellin COURSE CODE	18EPS14 tem nputer relay corithms, di m protection on of differe on line and c ction algorit niques for re used for mac ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a n and travelling int types of pro- ligital filters. thms used for elaying application chines and transingle and three COURSE ID	C104 atical basis for and hardware gwaves. otections used transformers, tions. nsmission line, ee phase lines. C105		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE TITLE	EEE E NO E EEE E NO	SEMESTER Computer Re COURSE OU Enumerate to protective or organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Elector COURSE OU	1 elaying TCOMI che imp relaying used f e princi Machi ferent lines a differe applic 1 ronic C	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation types of prote and WAMs tech ent algorithms us ation of travelli COURSE CODE onverters STATEMENTS	18EPS14 tem nputer relay corithms, di m protection on of differe on line and co ction algorit niques for re- used for maion ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a and travelling int types of pro- ligital filters. hms used for elaying applica chines and trar single and thre COURSE ID	C104 atical basis for and hardware gwaves. otections used transformers, tions. nsmission line, ee phase lines. C105		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.2 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C105.1	EEE E NO EEE E NO	SEMESTER Computer Re COURSE OU Enumerate t protective r organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Electr COURSE OU Describe the	1 elaying rCOMI che imp relaying used f e princi Machi ferent lines a differe applic 1 ronic C rCOMI suitab	COURSE CODE S for Power Syst STATEMENTS portance of cor g, relaying alg for power syster ple and operation ines, transmission types of prote and WAMs tech ent algorithms to ation of travellin COURSE CODE CODE STATEMENTS le power electro	18EPS14 tem nputer relay orithms, di m protection on of differe on line and o ction algorit niques for re- used for mac ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a and travelling ont types of pro- ligital filters. hms used for elaying applicat chines and transingle and three COURSE ID	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, ee phase lines. C105		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.2 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C105.1 C105.2	EEE E NO EEE E NO	SEMESTER Computer Re COURSE OU Enumerate the protective of organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Electo COURSE OU Describe the	1 elaying TCOMI che imp relaying used f e princi Machi ferent lines a different alines a different ferent lines a conic C TCOMI suitab	COURSE CODE for Power Syst STATEMENTS portance of cor g, relaying alg or power syster ple and operation ines, transmission types of prote and WAMs tech ent algorithms us ation of travellin COURSE CODE onverters STATEMENTS ile power electric of different now	18EPS14 tem nputer relay corithms, di m protection on of differe on line and c ction algorit niques for re used for mac ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a n and travelling int types of pro- ligital filters. hms used for elaying applica chines and trar single and three COURSE ID	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, te phase lines. C105 of techniques.		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.2 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C105.1 C105.2 C105.3	EEE E NO EEE E NO	SEMESTER Computer Re COURSE OU Enumerate the protective of organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Electo COURSE OU Describe the Learn the wo Explain the	1 elaying relaying used f e princi Machi ferent lines a differe applic 1 ronic C TCOMI suitab orking o	COURSE CODE for Power System STATEMENTS portance of corright relaying algoright for power system ple and operation types of protections of and WAMs tech ent algorithms to ation of travellic COURSE CODE forwerters STATEMENTS ble power electro of different power	18EPS14 tem nputer relay orithms, di m protection on of differe on line and c ction algorit niques for re used for mac ng waves in 18EPS15	COURSE ID ving, Mathema gital filters a and travelling ent types of pro- ligital filters. thms used for elaying applica chines and transingle and three COURSE ID ers and control c converters.	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, ee phase lines. C105 ol techniques.		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C105.1 C105.2 C105.3	EEE E NO EEE E NO	SEMESTER Computer Re COURSE OU Enumerate the protective of organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Electo COURSE OU Describe the Learn the wo	1 elaying relaying used f e princi ferent lines a differe applic 1 ronic C rCOMI suitab	COURSE CODE S for Power System STATEMENTS portance of cor g, relaying alg for power system ple and operation ines, transmission types of prote and WAMs tech ent algorithms us ation of travellin COURSE CODE STATEMENTS Is STATEMENTS of different power acteristics of converters	18EPS14 tem nputer relay orithms, di m protection on of differe on line and c ction algorit niques for re- used for mac ng waves in 18EPS15 onic convert ver electroni different por continuous	COURSE ID ving, Mathema gital filters a and travelling ont types of pro- ligital filters. hms used for elaying application chines and trans- single and three COURSE ID ers and control c converters. ower electron mode and	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, e phase lines. C105 of techniques. ic converters find out the		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C105.1 C105.2 C105.3	EEE E NO EEE E NO	SEMESTER Computer Re COURSE OUT Enumerate the protective rr organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Elector COURSE OUT Describe the Learn the wor Explain the operate in application of	1 elaying TCOMI celaying used f e princi Machi ferent lines a different lines a different suitab orking o chara contir	COURSE CODE For Power System STATEMENTS portance of corriging algoright or power system ple and operation ines, transmission types of protection and WAMs tech ent algorithms of ation of travellin COURSE CODE CODE CODE CODE CODE CODE CODE COD	18EPS14 tem nputer relay corithms, di m protection on of differe on line and co ction algorit niques for re used for mac ng waves in 18EPS15 onic convert ver electroni different po continuous	COURSE ID ving, Mathema gital filters a and travelling int types of pro- ligital filters. hms used for elaying application chines and transingle and three COURSE ID vers and control c converters. wer electron mode and	C104 atical basis for and hardware g waves. otections used transformers, tions. nsmission line, te phase lines. C105 ol techniques. ic converters find out the		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.2 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C105.1 C105.2 C105.3	EEE E NO E EEE E NO	SEMESTER Computer Re COURSE OU Enumerate the protective of organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Elector COURSE OU Describe the Learn the wo Explain the operate in application of Analyze and	1 elaying rCOMI che imp relaying used f e princi ferent lines a differe a pplic 1 ronic C TCOMI suitab orking o chara contir of powo	COURSE CODE for Power System STATEMENTS portance of corright relaying algoright for power system ple and operation ines, transmission types of protection and WAMs tech ent algorithms to ation of travellitic COURSE CODE forwerters STATEMENTS and different power acteristics of content of the power electromic content and distingtion of the power electromic content of the performance to the performance of the per	18EPS14 tem nputer relay orithms, di m protection on of differe on line and c ction algorit niques for re- used for mac ng waves in 18EPS15 onic convert ver electroni different pc continuous nverters. ance of power	COURSE ID ving, Mathema gital filters a n and travelling ent types of pro- ligital filters. hms used for elaying applica chines and transingle and three COURSE ID ers and control c converters. ower electron mode and	C104 atical basis for and hardware g waves. otections used transformers, tions. asmission line, te phase lines. C105 C105 C105 C105 C105		
DEPARTMENT COURSE TITLE COURSE OUTCOM C104.1 C104.2 C104.3 C104.3 C104.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C105.1 C105.2 C105.3 C105.4 DEPARTMENT		SEMESTER Computer Re COURSE OU Enumerate the protective of organization Illustrate the for electrical Interpret dif transmission Discriminate also relaying SEMESTER Power Electo COURSE OU Describe the Learn the wo Explain the operate in application of Analyze and SEMESTER	1 elaying rCOMI celaying used f e princi ferent lines a differe applic 1 ronic C rCOMI suitab orking of chara contir of powo simula	COURSE CODE S for Power System STATEMENTS portance of cor g, relaying alg for power system ple and operation ines, transmission types of prote and WAMs tech ent algorithms up ation of travellin COURSE CODE STATEMENTS Is STATEMENTS of different power acteristics of con the performant COURSE	18EPS14 tem nputer relay orithms, di m protection on of differe on line and c ction algorit niques for re- used for mac ng waves in 18EPS15 onic convert ver electroni different po- continuous nverters. ance of powe 18EPS116	COURSE ID ving, Mathema gital filters a and travelling ont types of pro- ligital filters. hms used for elaying applicat chines and trans- single and three COURSE ID vers and control c converters. ower electron mode and er electronic con- c course in course i	C104 Atical basis for and hardware g waves. Detections used transformers, tions. nsmission line, e phase lines. C105 Detechniques. C105 Detechniques. C106		



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				CODE				
COURSE TITLE		Power Syste	m Lab	oratory – I	L		ı	
COURSE OUTCOM	E NO	COURSE OU	гсом	E STATEMENTS				
		Describe loa	d flow	, Contingency	, voltage sta	ability, ATC, re	eactive power	
C106.1		optimization	, optir	nal dispatch, st	tate estimat	ion, relay coo	rdination and	
		Harmonic Ar	alysis	•				
C106.2		Express the	oroblei	ms given with th	ne use of Sim	nulation		
C106.3		Demonstrate	e the g	iven problem w	vith the use of Modern tools			
DEPARTMENT	EEE	SEMESTER	1	COURSE	1001117	COURSE ID	C107	
				CODE				
COURSE TITLE		Research Me	ethodo	ology and IPR				
COURSE OUTCOM	E NO	COURSE OU	гсомі	E STATEMENTS				
		Describe res	earch	methodology a	nd the techr	nique of defini	ing a research	
C107 1		problem, ex	planat	ion of literatu	re review i	n research, c	arrying out a	
C107.1		literature se	arch, c	developing theo	pretical and	conceptual fra	meworks and	
		writing a rev	iew.					
C107.2		Interpret va	rious	research desig	ns and the	eir characteris	tics and also	
		different me	thods	of data collectio	ons.			
C107.3		Illustrate sev	/eral p	arametric tests	of hypothe	ses and Chi-sc	uare test and	
		the art of int	erpret	ation and the a	rt of writing	research repor	rts.	
C107.4		Analyze the	variou	is forms of the	intellectual	property, its	relevance and	
		business imp	bact in	the changing g	lobal busine	ss environme	nt and leading	
		Internationa	l Instru	iments concern	ing IPR.			
DEPARTMENT	EEE	SEMESTER	2	COURSE	18ELE23	COURSE ID	C113	
C113.1		Analyze DC a		circuits.				
C113.2		Identify DC	and A	C machines, d	omestic wir	ing and prote	ective devices	
		required for	particu	ular application.				
C113.3		Implement e	electric	al and electror	nagnetic law	vs to solve pro	oblems on DC	
		and AC circu	its and	machines.			<b>.</b>	
C113.4		Explain the c	onstru	ictional and wor	rking princip	le of DC and A	C machines.	
DEPARTMENT	EEE	SEMESTER	2	COURSE	18ELEL27	COURSE ID	C117	
			DICAL					
		BASIC ELECT			ABORATOR	Ŷ		
	ENU	COURSE OU		e STATEIVIENTS	Coircuite			
C117.1		Conduct exp	ermer	its on DC and A	c circuits.			
C117.2		Conduct ex	perime	ents on safety	aspects, w	viring and co	nsumption of	
		electrical po	wer.					
C117.3		Understand	the ba	asic concepts of	f AC and DC	: machines, fu	ses, MCB and	
		UPS	<u> </u>					
C117.4		Demonstrate	e the u	sage of differen	t electrical n	neasuring instr	ruments.	
DEPARTMENT	EEE	SEMESTER	4	COURSE	17MAT41	COURSE ID	C211	
		<b>-</b>		CODE				
COURSE TITLE		Engineering	Wathe	ematics-IV				
COURSE OUTCOM	ENO	COURSE OU	ICOM	E STATEMENTS	1	and black	stal for solt	
C211.1		identify the	numer	ical techniques	to solve the	problems, spe	ecial functions,	



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		complex variables, probability, sampling theory and stochastic process.					ic process.			
C211.2		Compute th	e solu	itions using nu	umerical tec	hniques, spe	cial functions,			
		complex var	iables,	probability, san	npling theory	/ and stochast	ic process.			
C211.3		Interpret th	e solu	itions using nu	imerical tec	hniques, spe	cial functions,			
		complex var	iables,	probability, san	npling theory	and stochast	ic process.			
DEPARTMENT	EEE	SEMESTER	4	COURSE	17EE42	COURSE ID	C212			
				CODE						
COURSE TITLE		Power Generation and Economics								
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
		Describe th	e gen	ieral layout/ar	rangement,	advantages/[	Disadvantages,			
C212.1		working of I	major	equipment and	auxiliaries (	used in conve	ntional power			
		plants and si	ubstati	ons.		<b>C</b> 11				
C212.2		Classify subs	tations	s and explain the	e importance	e of grounding				
C212.3		Sketch Hydr	ograph	i, load curve, lo	ad duration	curve, flow d	uration curve,			
		mass curve	for hyd	aro power plan	t and Bus b	ar arrangeme	nt schemes in			
C212.4		Substations.		min footures of (	Conventions	l nover plants				
	<b>CCC</b>									
DEFARTIVIENT		SLIVILSTER	-	CODE	1/1145	COOKSEID	C215			
COURSE TITLE		Transmissio	n and I	Distribution						
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
		Analyze the	perfor	mance of transr	mission line	with the effec	t of sag. wind.			
C213.1		ice & differe	nt para	ameters.						
C213.2		Develop the	mathe	ematical models	s of different	t types of tran	smission lines			
		and assess tl	neir pe	rformance.						
C213.3		Discuss/Desc	cribe	reliability & an	np; quality	of distribut	tion systems,			
		advantages	of diff	erent transmis	sion &	distribution s	system &			
		types of con	ductor	s & suppor	ting structur	res.				
C213.4		Describe the	e vario	ous parameters	s of transm	ission system	, selection of			
		insulators,	import	ance of sag	corona &a	imp; lighteni	ng, types of			
	l	distribution	system	is & gradin	g.					
DEPARTMENT	EEE	SEMESTER	4	COURSE	17EE44	COURSE ID	C214			
				CODE						
		Analyze the	nerfor	mance of AC and	d DC motors					
C214.1		Analyze the	periori			•				
C214.2		Employ the	nost si	uitable method	of starting a	nd speed cont	rol for AC and			
		DC motors a	nd to s	olve problems o	on AC and D	C motors.	c 1:cc .			
C214.3		Explain the	Derforr	nance characte	ristics of AC	and DC motor	's for different			
			eration		175545		C215			
DEPARTIVIENT	CCC	SEIVIESTER	4	CODE	1/6645	COURSEID	C215			
COURSE TITLE		Electromag	etic Fi	eld Theory	<u> </u>		1			
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
0215.1		Apply the o	oncep	ts of vectors a	and its ope	ration in solv	ing problems			
C215.1		associated w	vith sta	tic, steady and t	time varying	fields.				
C215.2		Apply the la	ws of	Electrostatics, I	Magnetostat	ics and Electr	omagnetics in			
		developing N	Лахwe	ll's equations fo	or static and	time varying fi	elds.			



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C215.3		Analyze the	perfo	ormance of ele	ectromagnet	ic fields and	waves using			
		Maxwell's ed	quatior	n in different me	edia and also	at the bound	aries.			
C215.4		Develop the	e relat	ionship betwee	en electric	and magnetic	fields under			
		steady condi	tions.			•				
DEPARTMENT	EEE	SEMESTER	4	COURSE CODE	17EE46	COURSE ID	C216			
COURSE TITLE		Operational	Ampli	fier and Linear	Cs	•				
<b>COURSE OUTCOM</b>	E NO	COURSE OU	OURSE OUTCOME STATEMENTS							
C216.1		Design and develop models using linear integrated circuits for a given specification.								
C216.2		Analyse the working of different applications of op-amps.								
C216.3		Solve problems related to op-amps, timers, voltage regulators and PLL.								
C216.4		Understand	the b	asics of linear	integrated	circuits (op-	amps. timers.			
		voltage regu	lators	and PLL)						
DEPARTMENT	EEE	SEMESTER	4	COURSE	17EEL47	COURSE ID	C217			
				CODE						
COURSE TITLE		Electrical Ma	achine	s Laboratory-2						
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
		Test DC mac	hines t	o determine the	eir character	istics and also	to control the			
C217.1		speed of DC	motor							
C217.2		Pre-determi	ne the	e performance	characteri	stics of DC	machines by			
		conducting s	uitable	e tests.						
C217.3		Perform loa	d test	on single phas	e and three	e phase induct	tion motor to			
		assess its pe	rforma	ince.						
C217.4		Conduct tes	t on i	induction moto	rand on a	synchronous r	notor to pre-			
		determine th	ne perf	ormance charad	cteristics.					
DEPARTMENT	EEE	SEMESTER	4	COURSE	17EEL48	COURSE ID	C218			
				CODE						
COURSE TITLE		Op-Amps an	d Line	ar ICs Laborato	ry					
COURSE OUTCOM	E NO	COURSE OU	COURSE OUTCOME STATEMENTS							
C218.1		Design and b	ouild va	arious linear inte	egrated circu	iits.				
C218.2		Troubleshoo	t and t	est various line	ar integrated	d circuits.				
C218.3		Apply the co	oncept	s of electronics	of electron	ic component	s in designing			
		and building	variou	is linear integrat	ted circuits.					
DEPARTMENT	EEE	SEMESTER	6	COURSE	15EE61	COURSE ID	C311			
				CODE						
COURSE TITLE		Control Syst	ems							
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
C211 1		Develop ma	thema	tical models o	f open loop	and closed	loop physical			
C511.1		systems.								
C311.2		Analyze time	e respo	nse and freque	ncy response	e of a control s	ystem.			
C311.3		Determine t	he sta	bility of a syst	em in the t	ime and frequ	uency domain			
		through diffe	erent n	nethods.						
C311.4		Develop a c	ontrol	system model	in continuc	ous and discre	te time using			
	r	state variabl	e techı	niques.	[		l			
DEPARTMENT	EEE	SEMESTER	6	COURSE CODE	15EE62	COURSE ID	C312			
COURSE TITLE		Power Syste	m Ana	lysis-l						
<b>COURSE OUTCOM</b>	E NO	COURSE OU	тсом	E STATEMENTS						



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		a Doc	sriba ra	procontation of	Enouversust	om in ite oquit	ant aircuit and		
C212 1		• Dest		diagram	i power syste	en in its equit	ant circuit and		
C512.1		III UI		uidgi di ii,	novementrica	I faults and su	stom stability		
C212.2		Dell	ne syn		isymmetrica	ii iaults and sy			
C312.2		• Und	erstan	a per unit syste	m, symmetr	ical componen	its and classify		
		the faults and its severity.							
		<ul> <li>Explain about power system stability and the dynamics of synchronous machine.</li> </ul>							
		sync	synchronous machine						
C312.3		Use the too	l of sy	/mmetrical_com	ponents an	d per unit sys	stem for fault		
		calculations and equal area criterion for stability calculation.							
C312.4		Analyze diff	erent	faults in the po	ower system	n and examine	e the stability		
	1	conditions o	f the sy	ystem					
DEPARTMENT	EEE	SEMESTER	6	COURSE	15EE63	COURSE ID	C313		
		CODE							
COURSE TITLE		Digital Signa	l Proce	essing					
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS					
C313 1		Apply fast ar	nd effic	cient algorithms	for comput	ing DFT and in	verse DFT of a		
C313.1		given seque	nce						
C313.2		Design infini	te imp	ulse response E	Butterworth	and Chebyshe	v digital filters		
		using impulse invariant / bilinear transformation technique. Design FIR filters by use of window function or by frequency sar							
C313.3		Design FIR filters by use of window function or by frequency sampli					ency sampling		
		method.							
C313.4		Realize a dig	ital IIR	filter by direct,	cascade, pa	rallel and ladd	er methods of		
		realization.							
DEPARTMENT	EEE	SEMESTER	6	COURSE	15EE64	COURSE ID	C314		
			SEMESTER 6 COURSE 15EE64 COURSE ID C314						
		CODE							
COURSE TITLE		Electrical Ma	achine	CODE Design					
COURSE TITLE COURSE OUTCOM	E NO	Electrical Ma	achine TCOMI	CODE Design E STATEMENTS					
COURSE TITLE COURSE OUTCOM	ENO	Electrical Ma COURSE OU Design over	achine TCOMI all dir	CODE Design ESTATEMENTS nensions of AC	C and DC n	nachines base	d on Specific		
COURSE TITLE COURSE OUTCOM C314.1	E NO	Electrical Ma COURSE OU Design over Loadings	achine TCOMI all din	CODE Design ESTATEMENTS nensions of AC	C and DC n	nachines base	d on Specific		
COURSE TITLE COURSE OUTCOM C314.1 C314.2	E NO	Electrical Ma COURSE OU Design over Loadings To carry out	achine TCOMI all dir	CODE Design E STATEMENTS nensions of AC	C and DC n	nachines base	d on Specific		
COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3	E NO	Electrical Ma COURSE OU Design over Loadings To carry out Examine var	achine TCOMI all dir a deta ious pe	CODE Design ESTATEMENTS nensions of AC iled design of A erformance indi	C and DC n C and DC ma C and DC ma ces of the de	nachines base ichines esigned AC and	d on Specific		
COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3	E NO	Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif	achine TCOMI all dir a deta ious pe	CODE Design E STATEMENTS nensions of AC iled design of A erformance indi nstraints/standa	C and DC n C and DC ma ces of the de ards	nachines base achines esigned AC and	d on Specific d DC machines		
COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3 C314.4	E NO	Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif Explain the f	achine TCOMI all dir a deta ious pe ied con actors	CODE Design E STATEMENTS nensions of AC iled design of A erformance indi nstraints/standa to be considere	C and DC n C and DC ma ces of the de ards ed in selectin	nachines base tochines esigned AC and g the material	d on Specific d DC machines s for design of		
COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3 C314.4	E NO	Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif Explain the f various parts	achine TCOMI all dir a deta ious pe ied con actors s of ele	CODE Design E STATEMENTS nensions of AC iled design of A erformance indi nstraints/standa to be considere ectrical machine	C and DC n C and DC ma ces of the de ards ed in selectin s	nachines base achines esigned AC and g the material	d on Specific d DC machines s for design of		
COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3 C314.4 DEPARTMENT	E NO	Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif Explain the f various parts SEMESTER	achine TCOMI all dir a deta ious pe ied con actors s of ele 6	CODE Design E STATEMENTS nensions of AC iled design of A erformance indi nstraints/standa to be considere ectrical machine COURSE	C and DC n C and DC ma ces of the de ards ed in selectin s <b>15EE651</b>	nachines base schines esigned AC and g the material	d on Specific d DC machines s for design of <b>C315</b>		
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COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3 C314.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C315.1 C315.2 C315.3	EEE ENO	Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif Explain the f various parts SEMESTER Computer A COURSE OU Design the se Develop a la equipment To interpret diagrams of	achine TCOMI all dir a deta ious pe ied cor actors of ele 6 ided El TCOMI ectiona yout fo the no	CODE Design E STATEMENTS nensions of AC iled design of A erformance indi nstraints/standa to be considere ectrical machine COURSE CODE lectrical Drawin E STATEMENTS al views of Trans or substation us otations and for	C and DC ma C and DC ma ces of the de ards d in selectin s <b>15EE651</b> g (Profession sformers, DC sing the stan	nachines base echines esigned AC and g the material COURSE ID nal Elective-II) c machines and dard symbols ired and desig	d on Specific d DC machines s for design of <b>C315</b> d Alternators. for substation n the winding		
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COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3 C314.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C315.1 C315.2 C315.3 DEPARTMENT COURSE TITLE COURSE TITLE		Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif Explain the f various parts SEMESTER Computer A COURSE OU Design the s Develop a la equipment To interpret diagrams of SEMESTER Energy Audi	achine TCOMI all dir a deta ious pe ied cor actors of ele 6 ided El TCOMI ectiona yout fo the no AC and 6	CODE Design ESTATEMENTS nensions of AC iled design of A erformance indi nstraints/standa to be considere ectrical machine COURSE CODE dectrical Drawin ESTATEMENTS al views of Trans or substation us otations and for DC machines. COURSE CODE Demand Side M ESTATEMENTS	C and DC ma C and DC ma ces of the de ards d in selectin s 15EE651 g (Profession formers, DC sing the stan rmulas requir 15EE653 anagement	nachines base esigned AC and g the material COURSE ID nal Elective-II) C machines and dard symbols ired and desig COURSE ID (Professional I	d on Specific d DC machines s for design of C315 d Alternators. for substation n the winding C316 Elective-II)		
COURSE TITLE COURSE OUTCOM C314.1 C314.2 C314.3 C314.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C315.1 C315.2 C315.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE TITLE		Electrical Ma COURSE OU Design over Loadings To carry out Examine var as per specif Explain the f various parts SEMESTER Computer A COURSE OU Design the s Develop a la equipment To interpret diagrams of SEMESTER Energy Audi COURSE OU	achine TCOMI all dir a deta ious pe ied con actors s of ele 6 ided El TCOMI ectiona yout fo the no AC and C AC and C TCOMI	CODE Design ESTATEMENTS nensions of AC iled design of A erformance indi nstraints/standa to be considere ectrical machine COURSE CODE dectrical Drawin ESTATEMENTS al views of Trans or substation us otations and for d DC machines. COURSE CODE Demand Side M ESTATEMENTS audit parameter	C and DC ma C and DC ma ces of the de ards ed in selectin s 15EE651 g (Professio sformers, DC sing the stan rmulas requi 15EE653 anagement	nachines base esigned AC and g the material COURSE ID nal Elective-II) C machines and dard symbols ired and desig COURSE ID (Professional I	d on Specific d DC machines s for design of C315 d Alternators. for substation n the winding C316 Elective-II)		



# **Department of Electrical & Electronics Engineering**

C316.2 Describe the concepts in energy				auditing of electrical and mechanical						
0510.2		systems der	nand s	ide managemer	nt					
C316 3		Explain ener	gv aud	lit energy scena	ario electric	al load manag	ement survey			
010.5		instrumenta	tion an	nd energy conse	rvation		chieft, survey			
C316.4		Conduct ene	rgy all	dit of different of	systems eau	inment and b	uildings			
DEPARTMENT	FFF		6		systems, equ		<b>C317</b>			
		SEIVIESTER	U	CODE	15FF661	COORSEID	C317			
		Artificial Neural Networks and Fuzzy logic (Open Elective)								
	F NO	COURSE OUTCOME STATEMENTS								
		Relate Euzzy		Crisp sets and	define Euzzi	ification and I	Defuzzification			
C317.1		methods	5005,							
C317.2		Demonstrate	- the A	Artificial Neural	Network ar	chitectures an	d Illustrate its			
		learning met	hods.							
C317.3		Choose the tuning parameters for Neural Network architectures and ap								
		ANN algorithms for classification, function approximation and time se								
		prediction problems.								
DEPARTMENT	EEE	SEMESTER	6	COURSE		COURSE ID	C318			
				CODE	15EE662					
COURSE TITLE		Sensors and	Transo	ducers (Open El	ective)					
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS	-					
C318.1		Understand	the op	erating principle	e of different	t sensors, tran	sducers.			
C218 2		Apply the kn	owlod	ge of sensors ar	ad transduce	rs to mossure	non electrical			
C310.2		narameters	owieu	ge of sensors at		is to measure	non electrical			
C318 3		Analyze and	evalua	te the nerform:	ance of diffe	rent sensors t	ransducers			
010.0		hased system	ns	the the periorna			indification			
C318.4		Create a system	rems u	sing appropriate	e sensor for	measuring Ele	ctrical and			
		non Electrica	al quan	tities						
DEPARTMENT	EEE	SEMESTER	6	COURSE		COURSE ID	C319			
				CODE	15EEL67					
COURSE TITLE		Control Syst	em Lak	poratory						
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
		Use softwar	e pack	age or discrete	component	s in assessing	the time and			
C210.1		frequency d	omain	reposes of a g	iven second	order system	and to study			
C319.1		the effect o	f P, PI,	, PD and PID co	ontroller and	d Lead compe	nsator on the			
		step respons	e of th	ie system.						
C319.2		Design and	analyz	e Lead, Lag ar	nd Lag – Le	ad compensa	tors for given			
		specification	S							
C319.3		Write a scrip	ot files	to plot root loc	us, bode plo	t, Nyquist plo	ts to study the			
		stability of the	ne syst	em using a soft	ware packag	e.				
C319.4		Determine t	he per	formance chara	cteristics of	ac and dc ser	vomotors and			
	<b></b>	synchro-tran	ismitte	r receiver pair u	ised in contr	ol systems				
DEPARTMENT	EEE	SEMESTER	6	COURSE	15EEL68	COURSE ID	C3110			
COURSE TITLE		Digital Signa	l Proce	essing Laborato	ry					
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS						
C3110.1		Give physica	l interp	pretation of sam	pling theore	em				
C3110.2		Evaluate the	impul	se response of a	a system.					
C3110.3		To solve the	Differe	ence Equation	•					
C3110.4		Perform cor	volutio	on of given sec	quences to	evaluate the	response of a			



## **Department of Electrical & Electronics Engineering**

		system.						
C3110.5		Compute DF	T and	IDFT of a give	en sequence	e using the ba	asic definition	
		and/or fast r	nethod	ds.				
C3110.6		Design and in	mplem	ent IIR and FIR	filters			
DEPARTMENT	EEE	SEMESTER	8	COURSE		<b>COURSE ID</b>	C411	
				CODE	15EE81			
COURSE TITLE		Power Syste	m Ope	ration and Con	trol			
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS				
		Illustrate th	e cond	cepts of operation	tion, monito	oring, control,	security and	
C411.1		reliability of	power	system.		<i>,</i>	,	
C411.2		, Apply the n	umerio	, al. analytical a	nd optimal	solutions of	power system	
		problems.		, ,	·		,	
C411.3		Analvze the	econo	mic operation.	control by	AGC and LFC	. contingency.	
		, state estima	tion an	d stability of pc	, wer system.			
C411.4		Model LFC, AGC and AVR for single and two area power systems.						
DEPARTMENT	EEE	SEMESTER	8	COURSE		COURSE ID	C412	
			-	CODE	15EE82		-	
COURSE TITLE	1	Industrial Drives and Applications						
COURSE OUTCOM	E NO							
C412.1		Analyze the	perform	mance of electri	ic drives and	stability limits	5.	
(412.1								
C412.2		Examine the	speed	control, multi-	quadrant ope	eration, brakir	ng and starting	
		methods for	differe	ent types of driv	es using pov	ver electronic	controllers.	
C412.3		To calculate	e drive	e parameters a	and control	parameters	for the given	
		situation						
		SEMESTER 8 COURSE COURSE ID C413						
DEPARTMENT	EEE	SEMESTER	8	COURSE	4555000	COURSE ID	C413	
DEPARTMENT	EEE	SEMESTER	8	COURSE CODE	15EE833		C413	
DEPARTMENT COURSE TITLE	EEE	SEMESTER Integration	8 of Dist	COURSE CODE ributed Genera	15EE833 tion (Profess	COURSE ID	C413 -V)	
DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE E NO	SEMESTER Integration of COURSE OUT	8 of Distr TCOM	COURSE CODE ributed Generat	15EE833 tion (Profess	COURSE ID	C413 -V)	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1	EEE E NO	SEMESTER Integration of COURSE OUT Evaluate the	8 of Distr TCOMI e quan	COURSE CODE ributed Genera STATEMENTS tum of power	15EE833 tion (Profess that can be	COURSE ID ional Elective	C413 -V) From different	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1	EEE E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of er	8 of Distr TCOME e quan nergy.	COURSE CODE ributed Generat STATEMENTS itum of power	15EE833 tion (Profess that can be	COURSE ID ional Elective	C413 -V) From different	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2	EEE E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of en Examine th	8 of Distr TCOMI e quan nergy. e imp	COURSE CODE ributed Generar STATEMENTS tum of power	15EE833 tion (Profess that can be puted gener	COURSE ID ional Elective e harnessed f ration on po	C413 -V) From different	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2	EEE E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading	8 TCOMI e quan nergy. e imp of lines	COURSE CODE ributed Genera STATEMENTS itum of power pact of distrik s and voltage.	15EE833 tion (Profess that can be outed gener	COURSE ID ional Elective harnessed f	C413 -V) from different ower quality,	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3	EEE E NO	SEMESTER Integration of COURSE OU Evaluate the sources of en Examine th overloading Apply nume	8 of Distr COMI e quan nergy. e imp of lines rical ar	COURSE CODE ributed Generat STATEMENTS itum of power pact of distrik s and voltage. nd probabilistic	15EE833 tion (Profess that can be puted generation approach fo	COURSE ID ional Elective harnessed f ration on po or the design o	C413 -V) from different ower quality, of distribution	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3	EEE E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of er Examine th overloading Apply nume feeder integ	8 of Distr TCOMI e quan nergy. e imp of lines rical ar rated v	COURSE CODE ributed Generar STATEMENTS tum of power pact of distrik and voltage. nd probabilistic with distributed	15EE833 tion (Profess that can be outed generation	COURSE ID ional Elective harnessed f ration on po or the design and statistica	C413 -V) from different ower quality, of distribution I approach for	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3	EEE E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa	8 TCOMI e quan nergy. e imp of lines rical ar rated v city de	COURSE CODE ributed Generat STATEMENTS tum of power bact of distrik s and voltage. nd probabilistic with distributed	15EE833 tion (Profess that can be outed gener approach fo generation	COURSE ID ional Elective harnessed f ration on po or the design and statistica	C413 -V) from different ower quality, of distribution I approach for	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT	EEE E NO EEE	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER	8 of Distr TCOMI e quan nergy. e imp of lines rical ar rical ar rated v city de 8	COURSE CODE ributed Generat STATEMENTS tum of power bact of distrik and voltage. nd probabilistic with distributed termination.	15EE833 tion (Profess that can be outed gener approach fo generation	COURSE ID ional Elective harnessed for ration on por or the design of and statistica COURSE ID	C413 -V) from different ower quality, of distribution I approach for C414	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT	EEE E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER	8 of Distr TCOMI e quan nergy. e imp of lines rical ar rated v city de 8	COURSE CODE ributed Generar STATEMENTS tum of power bact of distributed and voltage. nd probabilistic with distributed termination. COURSE CODE	15EE833 tion (Profess that can be outed generation approach fo generation	COURSE ID ional Elective harnessed for ration on por or the design of and statistica	C413 -V) from different ower quality, of distribution I approach for C414	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT COURSE TITLE	EEE	SEMESTER Integration of COURSE OU Evaluate the sources of en Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid (	8 TCOMI e quan nergy. e imp of lines rical ar rated v city de 8 Profess	COURSE CODE ributed Generat STATEMENTS tum of power bact of distrik s and voltage. nd probabilistic with distributed termination. COURSE CODE sional Elective-	15EE833 tion (Profess that can be outed gener approach fo generation 15EE831 V)	COURSE ID ional Elective harnessed for ration on po- or the design and statistica COURSE ID	C413 -V) from different ower quality, of distribution l approach for C414	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE E NO EEE E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OU	8 of Distr TCOMI e quan nergy. e imp of lines rical ar rated v city de 8 Profess	COURSE CODE ributed Generat STATEMENTS atum of power bact of distrik and voltage. The probabilistic with distributed atermination. COURSE CODE sional Elective- STATEMENTS	15EE833 tion (Profess that can be outed gener approach fo generation 15EE831 V)	COURSE ID ional Elective harnessed for ration on pro- or the design of and statistica COURSE ID	C413 -V) from different ower quality, of distribution l approach for C414	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C414.1	EEE E NO EEE E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OUT To acquire th	8 of Distr TCOMI e quan nergy. e imp of lines rical ar rated v city de 8 Profess TCOMI ne know	COURSE CODE ributed Generar STATEMENTS tum of power bact of distrik and voltage. nd probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des	15EE833 tion (Profess that can be outed generation approach fo generation 15EE831 V)	COURSE ID ional Elective harnessed for ration on por or the design of and statistica COURSE ID	C413 -V) from different ower quality, of distribution I approach for C414	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 C413.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C414.1 C414.2	EEE E NO E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OU To acquire th To learn D C	8 of Distring re quan nergy. e imp of lines rical ar rical ar rated v city de 8 Profess TCOMI ne know C distril	COURSE CODE ributed Generat STATEMENTS STATEMENTS tum of power bact of distrik s and voltage. nd probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept	15EE833 tion (Profess that can be outed gener approach fo generation 15EE831 V) ign concepts and intellige	COURSE ID ional Elective harnessed for ration on por the design and statistica COURSE ID of smart grid ent grid archit	C413 -V) From different ower quality, of distribution I approach for C414 ecture for the	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C414.1 C414.2	EEE E NO E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OU To acquire th To learn D C smart grid	8 of Distri TCOMI e quan hergy. e imp of lines rical ar rated v city de 8 Profess TCOMI he know	COURSE CODE ributed Generat STATEMENTS atum of power bact of distrik and voltage. The probabilistic with distributed atermination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept	15EE833 tion (Profess that can be outed generation approach for generation 15EE831 V) ign concepts and intellige	COURSE ID ional Elective harnessed for ration on pro- or the design of and statistica COURSE ID of smart grid ent grid archit	C413 -V) from different ower quality, of distribution l approach for C414 ecture for the	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C414.1 C414.2 C414.3	EEE E NO E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OUT To acquire th To learn D C smart grid To acquire th	8 of Distri TCOMI e quan hergy. e imp of lines rical ar rated v city de 8 Profess TCOMI he know	COURSE CODE ributed Genera STATEMENTS tum of power bact of distrik and voltage. to probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept	15EE833 tion (Profess that can be outed generation approach fo generation 15EE831 V) ign concepts and intellige	COURSE ID ional Elective harnessed for ration on por or the design of and statistica COURSE ID of smart grid ent grid archit	C413 -V) from different ower quality, of distribution I approach for C414 ecture for the mamic energy	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C414.1 C414.2 C414.3	EEE E NO E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OU To acquire th To learn D C smart grid To acquire system	8 of Distri TCOMI e quan hergy. e imp of lines rical ar rated w city de 8 Profess TCOMI he know C distril	COURSE CODE ributed Generat STATEMENTS Atum of power bact of distrik and voltage. and probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept reneurial quali	15EE833 tion (Profess that can be outed gener approach fo generation 15EE831 V) ign concepts and intellige ties and the	COURSE ID ional Elective e harnessed f ration on po or the design and statistica COURSE ID of smart grid ent grid archit eir role in Dy	C413 -V) From different ower quality, of distribution I approach for C414 ecture for the mamic energy	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C414.1 C414.2 C414.3 C414.4	EEE E NO E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OU To acquire th To learn D C smart grid To acquire system To acquire	8 of Distri TCOMI e quan hergy. e imp of lines rical ar rated v city de 8 Profess TCOMI he know C distril entrep end u	COURSE CODE ributed Generat STATEMENTS tum of power bact of distrik s and voltage. nd probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept reneurial quali	15EE833 tion (Profess that can be outed generation approach for generation 15EE831 V) ign concepts and intellige ties and the icient techn	COURSE ID ional Elective harnessed for ration on pro- or the design of and statistica COURSE ID of smart grid ent grid archit eir role in Dy pology alterna	C413 -V) from different ower quality, of distribution I approach for C414 ecture for the mamic energy tives, market	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE OUTCOM C414.1 C414.2 C414.3 C414.4	EEE E NO E NO	SEMESTER Integration of COURSE OUT Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OUT To acquire th To learn D C smart grid To acquire system To acquire implementat	8 of Distri TCOMI e quan hergy. e imp of lines rical ar rated v city de 8 Profes TCOMI he know C distril entrep end u tion an	COURSE CODE ributed Generar STATEMENTS tum of power bact of distrik s and voltage. nd probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept reneurial qualities d their policies.	15EE833 tion (Profess that can be outed generation approach fo generation 15EE831 V) ign concepts and intellige ties and the icient techn	COURSE ID ional Elective harnessed for ration on por or the design of and statistica COURSE ID of smart grid ent grid archit eir role in Dy ology alterna	C413 -V) From different ower quality, of distribution I approach for C414 ecture for the mamic energy atives, market	
DEPARTMENT COURSE TITLE COURSE OUTCOM C413.1 C413.2 C413.2 C413.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C414.1 C414.2 C414.3 C414.4 DEPARTMENT	EEE E NO E NO E NO	SEMESTER Integration of COURSE OU Evaluate the sources of er Examine th overloading Apply nume feeder integ hosting capa SEMESTER Smart Grid ( COURSE OU To acquire th To learn D C smart grid To acquire system To acquire implementat SEMESTER	8 of Distri TCOMI e quan hergy. e imp of lines rical ar rated w city de 8 Profess TCOMI he know C distril entrep end u tion an 8	COURSE CODE ributed Generar STATEMENTS tum of power bact of distrik s and voltage. Ind probabilistic with distributed termination. COURSE CODE sional Elective- STATEMENTS wledge and des bution concept reneurial qualities terminal qualities bution concept	15EE833 tion (Profess that can be outed gener approach for generation 15EE831 V) ign concepts and intellige ties and the icient techn	COURSE ID ional Elective ional Elective ie harnessed f ration on po or the design and statistica COURSE ID of smart grid ent grid archit ir role in Dy ology alterna COURSE ID	C413 -V) From different ower quality, of distribution I approach for C414 ecture for the mamic energy tives, market C415	



# **Department of Electrical & Electronics Engineering**

COURSE TITLE		Internship / Professional Practice						
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS				
C415.1		Gain practica	al expe	rience within in	dustry in wh	ich the intern	ship is done	
C415.2		Apply knowl	edge a	nd skills learned	to classroo	m work.		
C415.3		Develop a gr	reater	understanding a	about caree	r options while	e more clearly	
		defining pers	sonal c	areer goals.		•	,	
C415.4		Develop and	refine	oral and writte	n communic	ation skills		
DEPARTMENT	EEE	SEMESTER	8	COURSE		COURSE ID	C416	
			_	CODE	15EEP85			
COURSE TITLE		Proiect Wor	k Phas	e -ll			I	
COURSE OUTCOM	F NO	COURSE OU	COURSE OUTCOME STATEMENTS					
		Demonstrate an ability to identify and formulate a hypothesis for a						
C416.1		problem and test through appropriate experiments.						
C416.2		Apply relevant modern tools to solve the chosen technical problem.						
C416.3		Apply relevant modern tools to solve the chosen technical problem.						
C410.5		modifications to improve performance.						
C416 4		Modifications to improve performance.						
C416 5		Communicat	to toch	nical content el	ffectively th	rough written	report and	
C410.5		oral present	ations		incentively in	rough whiteh		
DEPARTMENT	FFF	SEMESTER	8	COURSE			C417	
		SEIVIESTER	0	CODE	15FF\$86	COONSEID	C417	
		Seminar		CODL	IJLLJOU			
	F NO		тсомі	STATEMENTS				
		Attain use a	nd dev		a in the field	of electrical a	nd electronics	
C417 1		engineering	and	other discipline	s through	independent	learning and	
		collaborative	study		in ough	independent	icurring and	
C417 2		Identify und	lerstan	d and discuss ci	irrent real-t	ime issues		
C417.2		Improve ora	l and w	ritten commun	ication skills			
C417.5		Explore on a		intion of the se	If in relation	n to its larger	diverse social	
C417.4		and academi	ic cont	ation of the se		i to its larger	uiverse social	
		and academi		M Tech				
				IVI. I CCII				
DEPARTMENT	EEE	SEMESTER	2	COURSE		COURSE ID	C111	
				CODE	18EPS21			
COURSE TITLE		Insulators fo	r Pow	er System				
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS				
		Choose mat	erial c	omposition and	d testing sta	andards for p	orcelain, glass	
C111.1		and non-cera	amic in	sulators.		·		
C111.2		Analyze attri	butes	and cost of line	with differe	nt types of insi	ulators.	
C111.3		Evaluation o	f chara	cteristics of pol	lutants & ice	e and dielectri	c performance	
		of different t	ypes o	f insulators und	ler pollution	and icing cond	ition.	
C111.4		Prepare spec	cificatio	ons for insulator	rs of the futu	ire		
DEPARTMENT	EEE	SEMESTER	2	COURSE		COURSE ID	C112	
				CODE	18EPS22			
COURSE TITLE		Switching in	Powe	r Systems			•	
COURSE OUTCOM	E NO	COURSE OU	тсом	STATEMENTS				
C112.1		Compare spe	ecial sv	vitching situatio	ns and mitig	ation of over v	voltages.	
C112.2		Illustrate the	e perfo	rmance of diffe	rent circuit b	reakers during	g closing on to	



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		faults at different situations and its interruption in different mediums.							
C112.3		Apply analyt	ical an	d numerical me	thods to esti	imate switchin	g transients.		
C112.4		Describe th	ne sw	itching pheno	mena, swit	tching device	s and their		
		classificatior	ns, faul	ts and their im	pact on sys	tem and com	ponents, their		
		limitation a	nd inte	erruptions, prop	perties of di	ifferent dielec	tric mediums,		
		reliability of	vacuur	n switch gear.			,		
DEPARTMENT	EEE	SEMESTER	2	COURSE		COURSE ID	C113		
			_	CODE	18EPS23				
COURSE TITLE		FACTS Contr	ollers						
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS					
		Apply the kn	owled	ge of power sys	tem controll	ers, different t	vpes of FACTS		
C113.1		devices and their modeling to the control of power system operations.							
C113.2		Choose a suitable controller to overcome a known instability problem.							
C113.3		Analyze the effect of different EACTS controllers(SVC and TCSC) on stabil							
011010		of power system							
DEPARTMENT	FFF	SEMESTER	SEMESTER 2 COURSE COURSE ID C114						
		CODE 18EPS241							
	l	EHV AC Transmission ( Professional elective 1)							
			тсомі	E STATEMENTS		1			
		Estimate co	rona r	elated narame	tors using	corona cage	different line		
C114.1		losses relate	d to co	viona and arres	ter rating		unrerent me		
C114 2		Design of El		s combining th	e offects of	state and tra	nsight voltage		
C114.2		limite	IV IIIC	s combining th	e enects of	state and tra	insient voltage		
C114 2		Analyza dict	ributio	n of charges an		adiant on sph	oros and sub		
C114.5		conductor	of bur	ndle travelling	and stand	ling wayos l	Lightning and		
		switching ov	or volt		and stand	ing waves. I			
C114 4		Compute ter	mnerat	ture rise of con	ductors GM	R and transmi	ission line and		
C114.4		ground nar	motor	s and generali	ized line co	nstants cond			
		voltage grad	ient c	orona nower los	s lightning	and switching	over voltages		
		Describe ne	ed for	FHV lines and	their differ	ent standard	rated voltage		
		levels under	rstand	wind induced m	echanical p	roblems	Tated Voltage		
DEPARTMENT	FFF		2	COURSE			C115		
		SEIVIESTEIN	-	CODE	18FPS253	COORSEID	0115		
		Power Quali	ity Pro	blems and Mitig	ration (Prof	essional Flecti	[ [vo-2]		
	F NO		тсом	E STATEMENTS			vc 2)		
		Learn cause		ects of PO pro	blems and	classification	of mitigation		
C115 1		techniques	for PO	nrohlems PO	standards t	erminology a	nd monitoring		
011011		requirement	s throu	igh numerical n	roblems				
C115 2		Discuss nass	ive shi	int and series co	omnensation	using lossless	components		
C115.2		mitigation of	f nowe	r quality proble	ms due to no	n linear loads	, components,		
C115 3		Design one	ration	and modeling c	of active shu	nt and series	compensation		
011010		equipment				ine und series	compensation		
DEPARTMENT	FFF	SEMESTER	2	COURSE			C116		
				CODE	18EPSL26	SC CHOLID			
COURSE TITLE	1	Power Syste	mlah	oratory - 2			I		
COURSE OUTCOM	F NO			E STATEMENTS					
	•	Describe Mo	odel a	nower system	and nerform	ance transien	t stability and		
C116.1		small signal	stahilit	v studies auto	matic voltag	e regulator an	d governor to		
		study their	effecto	s on stahility	transmission	line lighting	impulse and		
		Juay their	Lincols	, on stability ,			inpuise and		



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		surge arrester, CT and CVT for transient analysis of over using surge								
		arrester and	RC ne	twork.						
C116.2		Explain the I	Model	of a power sys	tem and per	formance trar	nsient stability			
		and small	signal	stability studi	ies, automa	tic voltage r	egulator and			
		governor to	study	their effects	on stability	,transmission	line, lighting			
		impulse and	surge	arrester, CT and	d CVT for tra	nsient analysis	s of over using			
		surge arreste	er and	RC network.						
C116.3		Demonstrate	e the v	arious numerio	al technique	es and modelin	ng to perform			
		transient st	ability	and transmis	sion line, li	ghting Impuls	se and surge			
		arrester, CT	and C\	/T for transient	analysis of o	ver using surg	e arrester and			
		RC network	power	system using M	lipower simu	lation softwar	e.			
		I	(2019-20)							
DEPARTMENT	EEE	SEMESTER	SEMESTER 1 COURSE 18ELE13 COURSE ID C103							
				CODE						
COURSE TITLE		BASIC ELECTRICAL ENGINEERING								
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS						
C103.1		Analyze DC a	and AC	circuits.						
C103.2		Identify DC	and A	C machines, d	omestic wir	ing and prote	ective devices			
		required for	partic	ular application.						
C103.3		Implement e	electric	al and electror	nagnetic law	vs to solve pro	oblems on DC			
		and AC circu	its and	machines.						
C103.4		Explain the c	onstru	ictional and woi	king principl	e of DC and A	C machines.			
DEPARTMENT	EEE	SEMESTER	1	COURSE	18ELEL17	COURSE ID	C107			
		SEMESTER 1 COURSE 18ELEL17 COURSE ID C107								
		CODE								
COURSE TITLE		BASIC ELECT	RICAL	ENGINEERING I	ABORATOR	Y				
COURSE TITLE COURSE OUTCOM	E NO	BASIC ELECT	RICAL	ENGINEERING I	ABORATOR	Y MENTS				
COURSE TITLE COURSE OUTCOM C107.1	E NO	BASIC ELECT	RICAL	ENGINEERING I COURSE OUT nts on DC and A	LABORATOR COME STATE C circuits.	Y MENTS				
COURSE TITLE COURSE OUTCOM C107.1 C107.2	E NO	BASIC ELECT Conduct exp Conduct exp	erimei perime	ENGINEERING I COURSE OUT nts on DC and A ents on safety	ABORATOR COME STATE C circuits. aspects, w	Y MENTS	nsumption of			
COURSE TITLE COURSE OUTCOM C107.1 C107.2	E NO	BASIC ELECT Conduct exp Conduct exp electrical po	erimei perime wer.	ENGINEERING I COURSE OUT Ints on DC and A ents on safety	ABORATOR COME STATE C circuits. aspects, w	Y MENTS viring and co	nsumption of			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3	E NO	BASIC ELECT Conduct exp Conduct ex electrical po Understand	erimen perimen wer. the ba	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts o	ABORATOR COME STATE C circuits. aspects, w f AC and DC	Y MENTS viring and con	nsumption of ses, MCB and			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3	E NO	BASIC ELECT Conduct exp Conduct ex electrical po Understand UPS	erimer perimer wer. the ba	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts o	ABORATOR COME STATE C circuits. aspects, w f AC and DC	Y MENTS viring and con	nsumption of ses, MCB and			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4	ENO	BASIC ELECT Conduct exp Conduct ex electrical por Understand UPS Demonstrate	erimer perimer wer. the ba	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts or sage of differen	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n	Y MENTS Viring and con machines, fu	nsumption of ses, MCB and ruments.			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT	E NO E EEE	BASIC ELECT Conduct exp Conduct ex electrical po Understand UPS Demonstrate SEMESTER	erimen perimen wer. the ba e the u 3	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts o sage of differen COURSE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31	Y MENTS riring and col machines, fu neasuring instr COURSE ID	nsumption of ses, MCB and ruments. <b>C201</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT	E NO E EEE	BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER	erimen perime wer. the ba	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts or sage of differen COURSE CODE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31	Y MENTS iring and col machines, fu neasuring instr COURSE ID	nsumption of ses, MCB and ruments. <b>C201</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE	E NO E EEE	BASIC ELECT Conduct exp Conduct ex electrical po Understand UPS Demonstrate SEMESTER Engineering	erimer perime wer. the ba e the u 3 Mathe	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts of sage of differen COURSE CODE ematics-III	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31	Y MENTS iring and con machines, fu neasuring instr COURSE ID	nsumption of ses, MCB and ruments. <b>C201</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO EEE E NO	BASIC ELECT Conduct exp Conduct exr electrical por Understand UPS Demonstrate SEMESTER Engineering	erimer perimer wer. the ba e the u 3 Mathe	ENGINEERING I COURSE OUT ants on DC and A ents on safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31	Y MENTS viring and con machines, fu neasuring instr COURSE ID	nsumption of ses, MCB and uments. <b>C201</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO EEE E NO	BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER Engineering Have the kn	erimer perime wer. the ba e the u 3 Mathe	ENGINEERING I COURSE OUT ants on DC and A ents on safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie	Y MENTS iring and contribution measuring instr COURSE ID MENTS er transforms,	nsumption of ses, MCB and uments. <b>C201</b> Z-transforms,			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.1	E NO E EEE E NO	BASIC ELECT Conduct exp Conduct exp electrical po Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v	erimer perime wer. the ba e the u <b>3</b> Mathe	ENGINEERING I COURSE OUT Ints on DC and A ents on safety asic concepts of sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistica	Y MENTS iring and con machines, fu neasuring instr COURSE ID MENTS er transforms, I methods	nsumption of ses, MCB and ruments. <b>C201</b> Z-transforms,			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.1 C201.2	E NO EEE E NO	BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine	erimer perimer wer. the base the u athe u <b>3</b> Mathe ariatio eering	ENGINEERING I COURSE OUT ants on DC and A ents on safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier ser	Y MENTS viring and con machines, fu neasuring instr COURSE ID COURSE ID MENTS er transforms, I methods ries and Fouri	nsumption of ses, MCB and uments. <b>C201</b> Z-transforms, er transforms			
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COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.1 C201.2	E NO E EEE E NO	BASIC ELECT Conduct exp Conduct exp electrical po Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an	erimer perime wer. the ba e the u <b>3</b> Mathe ariatio eering nd stat e and	ENGINEERING I COURSE OUT ants on DC and A ents on safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applie	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier ser and Calculus cations of Ma	Y MENTS viring and con machines, fu measuring instr COURSE ID MENTS er transforms, methods ries and Fouri s of Variation. athematics as	nsumption of ses, MCB and ruments. <b>C201</b> Z-transforms, er transforms tool.			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT	E NO EEE E NO E EEE	BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER	RICAL erimer perime wer. the ba e the u 3 Mathe ariatio eering nd stat ce and 3	ENGINEERING I COURSE OUT ats on DC and A ents on safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier ser and Calculus cations of Ma 18EE32	Y MENTS viring and con common mathematics as function COURSE ID MENTS er transforms, I methods ries and Fouri s of Variation. athematics as formation COURSE ID	nsumption of ses, MCB and uments. <b>C201</b> Z-transforms, er transforms tool. <b>C202</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT	E NO EEE E NO EEE	BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER	RICAL erimer perime wer. the ba the ba e the u 3 Mathe ariatio eering nd stat ce and 3	ENGINEERING I COURSE OUT ants on DC and A ents on safety asic concepts of sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier set and Calculus cations of Ma 18EE32	Y MENTS iring and con machines, fur neasuring instr COURSE ID MENTS er transforms, methods ries and Fouri s of Variation. athematics as f COURSE ID	nsumption of ses, MCB and ruments. <b>C201</b> Z-transforms, er transforms tool. <b>C202</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE	E NO EEE E NO EEE	BASIC ELECT Conduct exp Conduct exp electrical po Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu	erimer perime wer. the ba e the u 3 Mathe ariatio eering nd stat ee and 3 uit Ana	ENGINEERING I COURSE OUT ants on DC and A ents on safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier set and Calculus cations of Ma 18EE32	Y MENTS riring and con machines, fu neasuring instr COURSE ID MENTS rires and Fouri s of Variation. athematics as COURSE ID	nsumption of ses, MCB and uments. C201 Z-transforms, er transforms tool. C202			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C201.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE TITLE		BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU	RICAL erimer perime wer. the ba e the u 3 Mathe ariatio eering nd stat ce and 3 Jit Ana TCOMI	ENGINEERING I COURSE OUT ants on DC and A ents on Safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applic COURSE CODE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier ser and Calculus cations of Ma 18EE32	Y MENTS viring and con machines, fur neasuring instr COURSE ID MENTS er transforms, I methods ries and Fourities of Variation. athematics as the fourities COURSE ID	nsumption of ses, MCB and uments. <b>C201</b> Z-transforms, er transforms tool. <b>C202</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE TITLE		BASIC ELECT Conduct exp Conduct exp electrical por Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va	RICAL erimei perimei wer. the ba e the u 3 Mathe ariatio eering nd stat eering nd stat eand 3 uit Ana TCOM	ENGINEERING I COURSE OUT ants on DC and A ents on Safety asic concepts of sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applid COURSE CODE statemethods reflect on applid COURSE CODE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier set and Calculus cations of Ma 18EE32	Y MENTS iring and con machines, fu measuring instr COURSE ID  MENTS res and Fouri s of Variation. athematics as COURSE ID  , network theo	nsumption of ses, MCB and ruments. <b>C201</b> Z-transforms, er transforms tool. <b>C202</b>			
COURSE TITLE COURSE OUTCOM C107.1 C107.2 C107.3 C107.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C201.1 C201.2 C201.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM	E NO E EEE E NO E NO E NO	BASIC ELECT Conduct exp Conduct exp electrical po Understand UPS Demonstrate SEMESTER Engineering Have the kn Calculus of v Solve Engine Numerical an Communicat SEMESTER Electric Circu COURSE OU Apply the va transform,	erimer perime wer. the ba e the u 3 Mathe ariatio eering nd stat eering nd stat eand 3 uit Ana TCOM	ENGINEERING I COURSE OUT ants on DC and A ents on Safety asic concepts or sage of differen COURSE CODE ematics-III COURSE OUT ge of Fourier s ns, Numerical a problems using istical methods reflect on applie COURSE CODE istical methods reflect on applie COURSE CODE istical methods reflect on applie COURSE CODE	ABORATOR COME STATE C circuits. aspects, w f AC and DC t electrical n 18MAT31 COME STATE eries, Fourie nd statistical g Fourier set and Calculus cations of Ma 18EE32	Y MENTS riring and con machines, fu neasuring instr COURSE ID MENTS rires and Fouri s of Variation. athematics as COURSE ID COURSE ID A for the formation of the for	nsumption of ses, MCB and cuments. C201 Z-transforms, er transforms tool. C202			



# **Department of Electrical & Electronics Engineering**

		unbalanced system, two port network to a given electrical network.						
C202.2		Interpret th	e beh	avior of series	and paralle	el resonant c	ircuits, circuit	
		elements un	der sw	itching conditio	ns, different	network theo	orems and two	
		port networl	ks, Lap	lace transform f	or various ti	me functions		
C202.3		Identify the	sourc	es and networ	ks, State di	ifferent netwo	ork theorems,	
		Define Lapla	ice tra	insform for sta	ndard test	inputs, active	and reactive	
		power and to	<i>N</i> o por	t network parar	neters.			
DEPARTMENT	EEE	SEMESTER	3	COURSE	18EE33	COURSE ID	C203	
				CODE				
COURSE TITLE		Transformer	s and (	Generators				
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS						
C202 1		Explain the	cons	truction, opera	ation of si	ingle phase,	three phase	
C203.1		transformers and synchronous Generators.						
C203.2		Describe and select various transformer connections						
C203.3		Compute the circuit parameters of transformer, synchronous machine						
C203.4		Analyse the performance of the transformers, DC generators and S						
		Generators				Γ	[	
DEPARTMENT	EEE	SEMESTER	3	COURSE	18EE34	COURSE ID	C204	
				CODE				
COURSE TITLE		Analog Elect	ronic (	Circuits				
COURSE OUTCOM	E NO	COURSE OU	COM	E STATEMENTS				
C204.1		Design electi	onic ci	ircuits.				
C204.2		Analyze elec	tronic	circuits based	on diodes a	and transistor	s with special	
		focus on am	olifiers	and oscillators.				
C204.3		Solve proble	ms on	various applicat	ions of diod	es and transist	ors.	
C204.4		Understand	const	ruction, workir	ng and cha	racteristics o	f diodes and	
		different typ	es of t	ransistors.				
DEPARTMENT	EEE	SEMESTER	3	COURSE	18EE35	COURSE ID	C205	
				CODE				
COURSE TITLE		Digital Syste	m Des	ign				
COURSE OUTCOM	E NO	COURSE OU	COM	E STATEMENTS				
C205.1		Understand Sequential ci	the b	basic principles	of Boolea	in algebra, C anguage (HDL)	Combinational, Module	
C205.2		Apply the di	fferent	t techniques (Bo	polean algeb	ora, K-Mans a	nd Quine –Mc	
		Clusky Meth	nods a	and MEV/VEM)	to minimi	ze the Comb	inational and	
		Clusky Methods and MEV/VEM) to minimize the Combinational and						
		Sequential circuits.						
C205.3		Sequential ci Analvze ar	rcuits. d ev	aluate differe	ent technic	aues to rea	alize various	
C205.3		Sequential ci Analyze ar Combination	rcuits. d ev al and	valuate differe Sequential circu	ent technic uits.	ques to rea	alize various	
C205.3 C205.4		Sequential ci Analyze ar Combination Design and	rcuits. d ev al and develo	valuate differe Sequential circu op Combination	ent technic uits. nal and Sec	ques to requestion requestion in the second se	alize various	
C205.3 C205.4		Sequential ci Analyze ar Combination Design and conventiona	rcuits. d ev al and develo	valuate differe Sequential circu op Combination ods and Hardwa	ent technic uits. nal and Sec are Descripti	ques to re quential circu on Language (	alize various its by use of HDL) module.	
C205.3 C205.4 DEPARTMENT	EEE	Sequential ci Analyze ar Combination Design and conventiona SEMESTER	rcuits. d ev al and develo l metho <b>3</b>	valuate differe Sequential circu op Combination ods and Hardwa COURSE	ent technic uits. nal and Sec are Descripti <b>18EE36</b>	ques to rea quential circu on Language ( <b>COURSE ID</b>	alize various its by use of HDL) module. <b>C206</b>	
C205.3 C205.4 DEPARTMENT	EEE	Sequential ci Analyze ar Combination Design and conventiona SEMESTER	rcuits. ad ev al and develo l metho <b>3</b>	valuate differe Sequential circu op Combination ods and Hardwa COURSE CODE	ent technic uits. nal and Sec are Descripti <b>18EE36</b>	ques to rea quential circu on Language ( COURSE ID	alize various its by use of HDL) module. <b>C206</b>	
C205.3 C205.4 DEPARTMENT COURSE TITLE	EEE	Sequential ci Analyze ar Combination Design and conventiona SEMESTER Electrical an	rcuits. Id ev al and develo I metho <b>3</b> d Elect	valuate differe Sequential circu op Combination ods and Hardwa COURSE CODE ronic Measurer	ent technic uits. nal and Sec are Descripti 18EE36 ments	ques to rea quential circu on Language ( <b>COURSE ID</b>	alize various its by use of HDL) module. <b>C206</b>	
C205.3 C205.4 DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE	Sequential ci Analyze ar Combination Design and conventiona SEMESTER Electrical an COURSE OU	rcuits. Id eveloat al and develoat I metho 3 d Elect	valuate differe Sequential circu op Combination ods and Hardwa COURSE CODE ronic Measurer	ent technic uits. nal and Sec are Descripti 18EE36 ments	ques to rea quential circu on Language ( <b>COURSE ID</b>	alize various its by use of HDL) module. <b>C206</b>	
C205.3 C205.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C206.1	EEE	Sequential ci Analyze ar Combination Design and conventiona SEMESTER Electrical an COURSE OU Illustrate vari display and re	rcuits. Id even al and develo I metho 3 d Elect FCOME ous elected ecord t	valuate differe Sequential circu op Combination ods and Hardwa COURSE CODE ronic Measurer STATEMENTS ectrical and elect he different elec	ent technic uits. nal and Sec are Descripti <b>18EE36</b> ments ronic instrum trical and ma	ques to rea quential circu on Language ( <b>COURSE ID</b> nents used to magnetic parame	alize various its by use of HDL) module. <b>C206</b> neasure, ters.	
C205.3 C205.4 DEPARTMENT COURSE TITLE COURSE OUTCOMI C206.1 C206.2	EEE	Sequential ci Analyze ar Combination Design and conventiona SEMESTER Electrical an COURSE OU Illustrate vari display and re Compare the	rcuits. id evelou al and develou i metho 3 d Elect rCOMI ous elect ecord t differe	valuate differe Sequential circu op Combination ods and Hardwa COURSE CODE ronic Measurer STATEMENTS ectrical and elect he different elect ent electrical and	ent technic uits. nal and Sec are Descripti <b>18EE36</b> ments ronic instrum trical and ma electronic m	ques to rea quential circu on Language ( COURSE ID nents used to m agnetic parame neasuring, displ	alize various its by use of HDL) module. <b>C206</b> neasure, ters. ay and	



# **Department of Electrical & Electronics Engineering**

C206.3		Solve numerical involved in measurement of respective electrical parameters.								
C206.4		Analyze the e	errors in	n electrical instru	uments and s	pecify respectiv	ve			
		, minimization	techni	ques.		. , .				
DEPARTMENT	EEE	SEMESTER	3	COURSE	18EEL37	COURSE ID	C207			
				CODE						
COURSE TITLE		Electrical Ma	achines	s Laboratory -1			•			
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
C207.1		Evaluate the	perfor	mance of trans	formers fron	n the test data	obtained.			
C207.2		Connect and	opera	te two single ph	ase transfor	mers of differ	ent KVA rating			
		in parallel.	·				Ū			
C207.3		Connect sing	gle pha	ase transformer	s for three	phase operati	on and phase			
		conversion.								
C207.4		Compute the voltage regulation of synchronous generator using the								
		data obtained in the laboratory.								
DEPARTMENT	EEE	SEMESTER	3	COURSE CODE	18EEL38	COURSE ID	C208			
COURSE TITLE		Electronics Laboratory								
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
C208.1		Design and t	est diff	ferent diode ciro	cuits.					
C208.2		Design and	test	amplifier and	oscillator	circuits and	analyze their			
		performance	, ,	ampiner and	osomator		analyze then			
C208.3		Use universa	l gates	and ICs for cod	e conversio	n and arithmet	tic operations.			
C208.4		Apply the kn	owled	ge of counters a	nd sequence	e generators				
DEPARTMENT	EEE	SEMESTER	5	COURCE	17661		C201			
		02111201211	5	COURSE	T/EEDT		C201			
COURSE TITLE		Managemen	it and l	CODE CODE Entrepreneursh	ip	COURSEID	C501			
COURSE TITLE COURSE OUTCOM	E NO	Managemen	t and I	CODE Entrepreneursh	ip		C301			
COURSE TITLE COURSE OUTCOM	E NO	Managemen COURSE OU Knowledge c	t and I TCOMI	CODE Entrepreneursh E STATEMENTS damental conce	ip ots of Manag	gement and				
COURSE TITLE COURSE OUTCOM C301.1	E NO	Managemen COURSE OU Knowledge c Entrepreneu	<b>It and</b> I TCOMI on func	CODE Entrepreneursh E STATEMENTS lamental conce	ip ots of Manag	gement and				
COURSE TITLE COURSE OUTCOM C301.1 C301.2	E NO	Managemen COURSE OU Knowledge c Entrepreneu Understandi	nt and I TCOMI fon func rship ng the	CODE Entrepreneursh STATEMENTS lamental conce	ip ots of Manag	gement and repreneurs and	d their social			
COURSE TITLE COURSE OUTCOM C301.1 C301.2	E NO	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibilit	nt and I TCOMI fon func rship ng the ies, Co	CODE Entrepreneursh E STATEMENTS lamental concept functions of Ma mpare various t	ip ots of Manag anagers, Entr ypes of Entr	gement and repreneurs and epreneurs	d their social			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT	E NO E EEE	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibilit SEMESTER	nt and I TCOMI on func rship ng the ies, Coi	CODE Entrepreneursh STATEMENTS damental conce functions of Ma mpare various t COURSE	ip ots of Manag anagers, Entr ypes of Entr 17EE52	gement and repreneurs and epreneurs COURSE ID	d their social			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT	E NO	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibilit SEMESTER	at and I TCOMI on func rship ng the ies, Co 5	CODE Entrepreneursh E STATEMENTS lamental conceptions of Ma mpare various t COURSE CODE	ip ots of Manag anagers, Entr ypes of Entr 17EE52	gement and repreneurs and epreneurs COURSE ID	d their social			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE	E NO EEE	Managemen COURSE OU Knowledge c Entrepreneu Understandi responsibiliti SEMESTER Microcontro	at and I TCOMI on func rship ng the ies, Col 5	CODE Entrepreneursh STATEMENTS damental conce functions of Ma mpare various t COURSE CODE	ip ots of Manag anagers, Entr ypes of Entr 17EE52	cookse ib gement and repreneurs and epreneurs COURSE ID	d their social			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibilit SEMESTER Microcontro COURSE OU	at and I TCOMI on func rship ng the ies, Col 5 5 Iller	CODE Entrepreneursh STATEMENTS Jamental conce functions of Ma mpare various t COURSE CODE	ip ots of Manag anagers, Entr ypes of Entr 17EE52	gement and repreneurs and cOURSE ID	d their social			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1	E NO	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibilit SEMESTER Microcontro COURSE OU Describe th	at and I TCOMI on func rship ng the ies, Col 5 S Iller TCOMI c inte	CODE Entrepreneursh STATEMENTS lamental conceptions of Ma mpare various t COURSE CODE	ip ots of Manag anagers, Entr ypes of Entr 17EE52 ion, instruc	gement and repreneurs and epreneurs COURSE ID	d their social C302 ta types and			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1	E NO	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n	nt and I TCOMI on func rship ng the ies, Co 5 Iller TCOMI e inten nodes o	CODE Entrepreneursh STATEMENTS damental conce functions of Ma mpare various t COURSE CODE ESTATEMENTS ernal organizat of 8051.	ip ots of Manag anagers, Entr ypes of Entr 17EE52 ion, instruc	cookse ib gement and repreneurs and epreneurs COURSE ID	d their social C302 ta types and			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2	EEE ENO	Managemen COURSE OU Knowledge o Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse	at and I TCOMI on func rship ng the ies, Col 5 Iller TCOMI e inte nodes o embly a	CODE Entrepreneursh STATEMENTS Jamental conception functions of Ma mpare various t COURSE CODE ESTATEMENTS ernal organizat of 8051. and embedded	ip ots of Manag anagers, Entry ypes of Entry 17EE52 ion, instruc	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat	d their social C302 ta types and s of 8051			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2	E NO	Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro	at and I TCOMI on func rship ng the ies, Co 5 Iller TCOMI e inte nodes o embly a llers.	COURSE Entrepreneursh STATEMENTS lamental conceptions of Ma mpare various t COURSE CODE STATEMENTS ernal organizat of 8051. and embedded	ip ots of Manag anagers, Entr ypes of Entr 17EE52 ion, instruc	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat	d their social C302 C302 C302 C302 C302 C302 C302 C302			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.3 C302.4	E NO	Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and	at and I TCOMI on func rship ng the ies, Col 5 Iller TCOMI e inte nodes o embly a Ilers. design	COURSE Entrepreneursh STATEMENTS Jamental conce functions of Ma mpare various t COURSE CODE ESTATEMENTS ernal organizat of 8051. and embedded circuitry to inter	ip ots of Manag anagers, Entr ypes of Entr 17EE52 ion, instruc C programs f	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat for application	ta types and s of 8051 with 8051.			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.3 C302.4	E NO	Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and Work as an projects on r	at and I TCOMI on func rship ng the ies, Co 5 Iller TCOMI e inte nodes o embly a llers. design indivic real tim	COURSE Entrepreneursh STATEMENTS lamental concept functions of Ma mpare various t COURSE CODE STATEMENTS ernal organizat of 8051. and embedded of circuitry to inter dual or as a tea ne embedded sy	ip pts of Managers, Entry perface peripham –memberstem applica	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat for application herals devices er to design a ations using m	c SOI			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.2 C302.3 C302.4		Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and Work as an projects on r	at and I TCOMI on func rship ng the ies, Col 5 Iller TCOMI e inte nodes o embly a Ilers. design indivic real tim 5	COURSE CODE Entrepreneursh E STATEMENTS damental concep functions of Ma mpare various t COURSE CODE E STATEMENTS ernal organizat of 8051. and embedded of circuitry to inter dual or as a tea ne embedded sy COURSE	ip ip ots of Managers, Entry pes of Entry 17EE52 ion, instruct C programs for erface periphone m -member rstem applications 17EE53	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat for application herals devices er to design a ations using m COURSE ID	ta types and s of 8051 with 8051. nd implement icrocontroller C303			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.3 C302.4 DEPARTMENT	EEE EEE	Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and Work as an projects on r SEMESTER	at and I TCOMI on func rship ng the ies, Col 5 Iller TCOMI e inte nodes o embly a Ilers. design indivic real tim	COURSE CODE Entrepreneursh E STATEMENTS damental concep functions of Ma mpare various t COURSE CODE E STATEMENTS ernal organizat of 8051. and embedded of circuitry to inter dual or as a tea he embedded sy COURSE CODE	ip pts of Managers, Entry pes of Entry 17EE52 ion, instruct C programs for the second se	course id gement and repreneurs and epreneurs COURSE ID tion set, dat for application herals devices er to design a ations using m COURSE ID	ta types and s of 8051 with 8051. nd implement icrocontroller C303			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.3 C302.4 DEPARTMENT COURSE TITLE	EEE EEE	Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and Work as an projects on r SEMESTER	at and I TCOMI on func rship ng the ies, Co 5 5 Iller TCOMI e inte nodes o embly a llers. design indivic real tim 5	COURSE CODE Entrepreneursh STATEMENTS damental conce functions of Ma mpare various t COURSE CODE ESTATEMENTS ernal organizat of 8051. and embedded of circuitry to inte dual or as a tea ne embedded sy COURSE CODE	ip ots of Managers, Entry pes of Entry 17EE52 ion, instruct C programs f erface periph am –member stem applica 17EE53	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat for application herals devices of r to design a ations using m COURSE ID	ta types and s of 8051 with 8051. nd implement icrocontroller C303			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.2 C302.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM		Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibilit SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and Work as an projects on r SEMESTER Power Electo COURSE OU	at and I TCOMI on func rship ng the ies, Col 5 Iller TCOMI e inten nodes of embly a Ilers. design indivic real tim 5	COURSE CODE Entrepreneursh E STATEMENTS damental concept functions of Ma mpare various t COURSE CODE E STATEMENTS and embedded of circuitry to inter- dual or as a tea be embedded sy COURSE CODE COURSE CODE	ip ip ots of Managers, Entry pes of Entry 17EE52 ion, instruct C programs for erface peripham —member rstem applica 17EE53	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat for application herals devices ver to design a ations using m COURSE ID	ta types and s of 8051 with 8051. nd implement icrocontroller C303			
COURSE TITLE COURSE OUTCOM C301.1 C301.2 DEPARTMENT COURSE TITLE COURSE OUTCOM C302.1 C302.2 C302.3 C302.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE TITLE	E NO	Managemen COURSE OU Knowledge of Entrepreneu Understandi responsibiliti SEMESTER Microcontro COURSE OU Describe th addressing n Develop asse Microcontro Analyze and Work as an projects on r SEMESTER Power Electr COURSE OU Describe th	at and I TCOMI on func rship ng the ies, Co 5 Iller TCOMI e inte nodes o embly a llers. design indivic real tim 5	COURSE CODE Entrepreneursh STATEMENTS lamental conceptions functions of Ma mpare various t COURSE CODE ESTATEMENTS ernal organizat of 8051. and embedded of circuitry to intent dual or as a tea the embedded sy COURSE CODE	ip pots of Managers, Entry pes of Entry 17EE52 ion, instruct C programs for the second s	cookse ib gement and repreneurs and epreneurs COURSE ID tion set, dat for application herals devices er to design a ations using m COURSE ID	ta types and s of 8051 with 8051. nd implement icrocontroller C303			



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C303.2		Compute the performance parameters of different power converters and									
		power devic	es for g	given data.							
C303.3		Analyze the	behavi	or of power de	vices and po	wer converter	s for different				
		load condition.									
C303.4		Design the	Design the triggering and protection circuits for power Converters and								
	1	devices					I				
DEPARTMENT	EEE	SEMESTER5COURSE CODE17EE54COURSE IDC304									
COURSE TITLE		Signals and Systems									
<b>COURSE OUTCOM</b>	E NO	COURSE OUTCOME STATEMENTS									
C204 1	Apply the k	nowle	dge of mathen	natics and e	engineering to	analyse and					
C304.1	obtain the re	espons	e of continuous	and discrete	e system.						
C304.2		Analyse LTI s	system	and their prope	erties using i	mpulse respor	ise				
C304.3		Apply vario	ous tra	ansformation	techniques	to solve di	fference and				
		differential equations and sketch the block diagram									
C304.4		Analyse continuous time and discrete signals and systems in freque					in frequency				
		domain using Fourier analysis tools like CTFS,CTFT,DTFS and DTFT									
C304.5	1	Analyse disc	rete tir	ne systems usin	g Z-transfor	ms	1				
DEPARTMENT	EEE	SEMESTER	5	COURSE	17EE553	COURSE ID	C305				
				CODE							
COURSE TITLE		Estimation a	nd cos	ting (Profession	nal Elective-	I)					
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS							
C305.1		Able to exp	olain tl	he general pri	nciples invo	lved in estim	ation costing,				
		market surve	ey, pur	chase system a	nd general ic	lea about IE ru	les and act.				
C305.2		Able to calcu	late th	ne load requiren	nent and size	e of the cables	for single and				
		multi-circuit	s used	in buildings wit	h protective	devices.					
C305.3		Able to exp	olain tl	he concept of	service co	nnection and	estimate the				
		materials rec	quired	for electrical ins	stallation of	power circuits					
C305.4		Able to est	imate	the materials	required to	or electrical i	nstallation of				
		overhead tra	insmiss	sion & dist	ribution line	s and substatio	ons.				
C305.5		Design the o	ptimize	ed lighting syste	em for reside	ential, commer	cial, industrial				
DEDADTAGNIT							6306				
DEPARTMENT	EEE	SEIVIESTER	5	CODE	1/22554	COORSEID	C306				
COURSE TITLE		Special Elect	rical N	lachines (Profe	ssional Elect	ive-I)					
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS							
C306 1		Able to und	erstan	d the principle	of operatio	n and power	converter for				
		switched rel	uctanc	e motor and ste	epper motor						
C306.2		Able to unde	erstand	construction, p	principle of o	peration, theo	ory of torque				
		production i	n brusł	nless DC motor							
C306.3		Able to unde	erstand	construction,	principle of o	operation of li	near induction				
		drive for elec	ctric tra	action and perm	nanent magr	net motors					
C306.4		Able to exp	lain th	ne control aspe	ect of speci	al electrical n	nachines and,				
		features of e	ectric	motors for trac	tion applicat	tions.					
DEPARTMENT	EEE	SEIVIESTER	5	COURSE	1/22562	COURSEID	C307				
		Drogramara	 		Onon Flast						
COURSE IIILE		Programmal	Die Log	ic Controllers (	Open Electiv	e)					
COURCE OUTCOM											



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		Understand the importance of PLC its architecture and the convections to							
C307.1		be followed	be followed.						
C207 2		Able to analy	170 tho	instructions an	d rules used	to build the p	rogram		
C307.2			+ifu an	propriato opora	tors dolay	to build the p	tions and use		
C307.5		Able to luell	hlook	hiopilale opera	itors, uelay t		clions and use		
6207.4			DIOCK	ulagi ali is			+!		
	FFF	Able to unde	erstand				tion.		
DEPARTMENT	EEE	SEIVIESTER	5	CODE	17EE563	COURSEID	C308		
COURSE TITLE		Renewable I	Energy	Systems (Open	Elective)				
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS					
C308.1		Describe the	conve	ntional and nor	n-convention	al energy sour	ces.		
C308.2		Explain the v	vorking	g of non-conven	itional meth	ods of generat	ing		
		electricity.							
C308.3		Calculate the performance of various renewable energy systems and							
		predict their applications.							
C308.4		Analyze the recent technologies for the generation of electrical energy							
		using renew	able er	nergy sources.					
DEPARTMENT	EEE	SEMESTER	5	COURSE CODE	17EEL57	COURSE ID	C309		
COURSE TITLE		Microcontroller laboratory							
	F NO		тсом	F STATEMENTS					
		Write simul	ate an	d debug 8051 r	rograms usi	ng assembly a	nd Embedded		
C309.1		C languages				ing assertiony a			
C309 2		Demonstrate	the c	ontrol of ancilla	ry devices us	sing 8051 Micr	ocontroller		
000312		(speed of a s	stenne	r motor de mot	tor and the i	nterface ADC	DAC ICD and		
		Keypad inter	facing	with 8051)					
C309.3		Design and	implei	ment real time	embedded	system appl	ications using		
		8051 microc	ontroll	er.					
DEPARTMENT	EEE	SEMESTER	5	COURSE	17EEL58	COURSE ID	C3010		
				CODE					
COURSE TITLE		Power elect	ronics	laboratory	I		1		
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS					
		List and des	cribe v	arious power se	emiconducto	or devices, pov	ver converters		
C3010.1		and its appli	cations	5.					
C3010.2		Explain the o	charact	teristics of powe	er semicond	uctor devices	and operation		
		of various po	ower co	onverters for dif	fferent loads		·		
C3010.3		Apply the c	oncept	t of power ele	ctronic con	verters to cor	ntrol different		
		loads and co	mpute	their performa	nce paramet	ters			
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EE71	COURSE ID	C401		
				CODE					
COURSE TITLE	•	Power Syste	m Ana	lysis-II					
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS					
		Identify net	work m	natrices and mo	dels for solv	ving load flow	problems and		
C401.1		perform ste	eady s	tate power fl	ow analysis	of power s	systems using		
		numerical ite	erative	techniques.	, -		. 0		
C401.2		Explain opti	mal o	peration of ge	enerators or	n a bus bar.	optimal unit		
		commitment	t, optir	nal scheduling f	or hydro-the	ermal system,	power system		
		security and	reliabi	lity.	•	, ,	. ,		
C401.3		Illustrate th	e use	of various nu	imerical tec	hniques appli	ied to power		



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		systems and numerical solution of swing equation for multi-machine						
C401 4		Applyze limi	t viola	tion in load flo	w ontimal	scheduling of	hydrothermal	
C401.4		system and s	short c	ircuit faults in p	ower system	l.	nyurotnermar	
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EE72	COURSE ID	C402	
COURSE TITLE		Power Syste	m Pro	tection				
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS				
C402.1		Identify and	d list	various protec	tive compo	nents based	on the fault	
		condition in	power	system networ	k.			
C402.2		Understand the construction, working principle and characteristics of different types of relays, circuit breakers and discuss protection against over voltages.						
C402.3		Over voltages. Classify and compare various types of relays, circuit breakers and fuses.						
C402.4		Classify and compare various types of relays, circuit breakers and fuses.						
		Apply conventional and numerical relays to the protection of rotat machines, bus bars, transformers, transmission lines and distribut network.						
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EE73	COURSE ID	C403	
		High Voltage Engineering						
				E STATEMENTS				
		Evaluation of	f diele	ectric performan	nce of high		ment's PD RI	
C403.1		and corona a	as per S	Standards.		lonage equip	nent 3, 1 D, 11	
C403.2		Analyze the	circu	its of AC, DC	and transi	ent voltage	and currents,	
		Generation a	and Me	easurements.				
C403.3		Applying know	owledg	ge of dielectric	property fo	r insulation co	pordination of	
C103 1		Describe the	wer Eq	ulpinent s.	of solid lie	nuid and gase	ous insulating	
C403.4		material, cau	uses of	overvoltages, c	orona and th	neir remedial r	neasures.	
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EE742	COURSE ID	C404	
				CODE				
COURSE TITLE		Utilization o	f Elect	ric Power (Profe	essional Elec	tive-III)		
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS				
C404.1		Use electrica	al engi	neering princip	les in the a	nalysis of elec	trical heating,	
		welding, elec	ctrolys	is, illumination a	and traction.		<b>C</b> 1: <b>C</b> 1	
C404.2		electrical ap	ous n plicatio	eating and lig ons.	nting syste	ms required	for different	
C404.3		Solve variou	s nume	erical problems	related to h	eating, weldin	g, electrolysis,	
		illumination	and el	ectric traction.		_	-	
C404.4		Analyze the	beha	vior of heating	elements	and electric t	raction under	
		various oper	ating c	onditions.		1		
DEPARTMENT	EEE	SEMESTER	7	COURSE CODE	15EE744	COURSE ID	C405	
COURSE TITLE		Power Syste	m Plar	nning(Professio	nal Elective-	)	1	
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS				
		Discuss pri	mary	components c	of power s	system plann	ing; planning	
C405.1		methodolog and gain kno	y for c wledg	optimum power e on forecasting	r system exp g future load	pansion as pe requirements	r CERC norms	
C405.2		Describe pr	inciple	es of distribut	ion plannir	ng, supply ru	iles, network	



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		development and the system studies and contrast methods to mobilize					
		resources to	meet	the investment	requirement	t for the powe	r sector.
C405.3		Demonstrate	e plani	ning and imple	mentation of	of electric -ut	ility activities,
		market prin	ciples a	and the norms	framed by (	CERC for onlin	e trading and
		exchange in	the int	erstate power r	narket		
C405.4		Analyze reli	ability	criteria for gei	neration, tra	nsmission, dis	stribution and
		reliability ev	aluatio	on and analysis,	grid reliabili	ty, voltage dis <sup>.</sup>	turbances and
		their remedi	es		-		
DFPARTMENT	FFF	SEMESTER	7	COURSE	15FF751	COURSE ID	C406
		<u>SEMESTER</u>		CODE	1022/01		0.00
COURSE TITLE		FACTS and H	IVDC (I	Professional Ele	ctive – IV)		
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS			
		To acquire the knowledge on transmission interconnections, flow of					
		in an AC S	System	limits of the	loading c	apability, dyn	amic stability
C406.1		consideratio	ns of	a transmissi	on intercor	nection and	controllable
		parameters.					
C406.2         To acquire basic concepts, definitions of flexible ac transmis						ission systems	
and benefits from FACTS technology and					gy and FACTS	S controllers	,
C406.3		To Describe series Controllers Thyristor-Controlled Series Capacitor (TCS					
	and the Static Synchronous Series Compensator (SSSC) for control of						control of the
		transmissior	i line d	current and adv	vantages of	HVDC power	transmission,
		overview and organization of HVDC system.					
C406.4		To acquire	the b	asic componer	nts of a co	onverter, the	methods for
		compensating the reactive power demanded by the converter					
		compensating the reactive power demanded by the converter and					
		converter o	ontrol	for HVDC sy	/stems, cor	nmutation fa	ilure, control
		converter of functions	ontrol	for HVDC sy	/stems, cor	nmutation fa	ilure, control
DEPARTMENT	EEE	converter c functions SEMESTER	ontrol	for HVDC sy	vstems, cor 15EE752	nmutation fa	ilure, control
DEPARTMENT COURSE TITLE	EEE	converter of functions SEMESTER Testing and	7 Comm	for HVDC sy COURSE CODE issioning of Elec	vstems, cor 15EE752 ctrical Appar	COURSE ID	C407
DEPARTMENT COURSE TITLE	EEE	converter of functions SEMESTER Testing and – IV)	7 Comm	for HVDC sy COURSE CODE issioning of Elec	vstems, cor 15EE752 ctrical Appar	nmutation fa	C407
DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE	converter of functions SEMESTER Testing and – IV) COURSE OU	7 Comm	for HVDC sy COURSE CODE issioning of Elect	ystems, cor 15EE752 ctrical Appai	COURSE ID	C407
DEPARTMENT COURSE TITLE COURSE OUTCOM	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe	Comm	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a	stems, cor 15EE752 ctrical Appar and apparate	ratus (Professi	ilure, control C407 ional Elective or installation,
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance	7 Comm TCOMI erent t e, repa	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of elect	stems, cor 15EE752 ctrical Apparation and apparation	COURSE ID ratus (Professi us required for ent and under	C407 ional Elective or installation, ground cables
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance according to	7 Comm TCOMI erent t e, repa India I	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electure Electricity Rules	stems, cor <b>15EE752</b> ctrical Apparent and apparate rical equipm	ratus (Professi us required for ent and under	C407 C407 Conal Elective or installation, ground cables
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance according to Identify the	7 Comm TCOMI erent t e, repa India I e spe	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electing Electricity Rules cifications, ins	rical equipm tallation a	ratus (Professi us required fo ent and under	ilure, control C407 ional Elective or installation, ground cables oning testing
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance according to Identify the procedure o	7 Comm TCOMI erent t e, repa India I e spe f variou	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, ins us electrical equ	stems, cor <b>15EE752</b> <b>ctrical Apparate</b> rical equipm tallation and ipment and	COURSE ID COURSE ID ratus (Professi us required for ent and under nd commissio underground	C407 C407 Canal Elective or installation, rground cables oning testing cables.
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different maintenance according to Identify the procedure of Analyze the	7 Comm TCOMI erent t e, repa India I e spe f variou e spec	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, instantion us electrical equi- ifications, Instantion	stems, cor <b>15EE752</b> <b>ctrical Apparator</b> ind apparator ical equipm tallation and allation and	ratus (Professi us required for ent and under nd commissio underground of testing of	ilure, control C407 ional Elective or installation, ground cables oning testing cables. the electrical
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3	EEE	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different maintenance according to Identify the procedure of Analyze the equipment a	7 Comm TCOMI erent t e, repa India I e spe f variou e spec	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, instant us electrical equi ifications, Instant derground cable	stems, cor <b>15EE752</b> ctrical Apparate rical equipm tallation and allation and s	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of	ilure, control <b>C407</b> <b>ional Elective</b> or installation, ground cables oning testing cables. the electrical
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different according to Identify the procedure of Analyze the equipment a Decide the	7 Comm TCOMI erent t e, repa India I e spec f variou e spec nd und testin	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, inst us electrical equi ifications, Insta derground cable ng and installa	stems, cor <b>15EE752</b> <b>ctrical Apparate</b> rical equipm tallation and allation and s tion metho	COURSE ID ratus (Professi us required for ent and under ind commission underground of testing of ods required	ilure, control <b>C407</b> <b>ional Elective</b> or installation, ground cables oning testing cables. the electrical for electrical
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different according to Identify the procedure of Analyze the equipment a Decide the equipment a	7 Comm TCOMI erent t e, repa India I e spec f variou e spec ind und testin and ur	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, instantion us electrical equi ifications, Instantion derground cable and installantion derground cable	stems, cor <b>15EE752</b> <b>ctrical Apparator</b> rical equipm tallation and allation and es tion methor les dependi	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of ods required ng on the com	ilure, control <b>C407</b> <b>ional Elective</b> or installation, ground cables oning testing cables. the electrical for electrical ndition of the
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4		converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance according to Identify the procedure of Analyze the equipment a Decide the equipment a site.	7 Comm TCOMI erent t e, repa India I e spec f variou e spec ind und testin and ur	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, inst us electrical equi ifications, Insta derground cable nd installanderground cab	stems, cor <b>15EE752</b> <b>ctrical Apparator</b> and apparator ical equipm tallation and allation and s tion methor les dependi	COURSE ID ratus (Professi us required for ent and under ind commission underground of testing of ods required ng on the com-	C407 C407 Canal Elective or installation, ground cables oning testing cables. the electrical for electrical ndition of the
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4 DEPARTMENT	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different according to Identify the procedure of Analyze the equipment a Decide the equipment a site. SEMESTER	7 Comm TCOMI erent t e, repa India I e spe f varior e spec ind und testin and ur	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, insta us electrical equi ifications, Insta derground cable of and installa inderground cab	stems, cor <b>15EE752</b> <b>ctrical Apparator</b> ind apparator ical equipm tallation and allation and is tion methor les dependi <b>15EEL76</b>	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of ods required ng on the con COURSE ID	C407 C407 Canal Elective or installation, ground cables oning testing cables. the electrical for electrical ndition of the C408
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4 DEPARTMENT	EEE EEE	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different maintenance according to Identify the procedure of Analyze the equipment a Decide the equipment a site. SEMESTER	7 Comm TCOMI erent t e, repa India I e spec ind und testin and ur 7	for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, instant derground cable of and installant derground cable Description Laborat	stems, cor <b>15EE752</b> ctrical Apparator ind apparator ical equipm tallation and allation and is tion methor les dependi <b>15EEL76</b>	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of ods required ng on the cor COURSE ID	ilure, control ilure, control C407 ional Elective or installation, ground cables oning testing cables. the electrical for electrical ndition of the C408
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4 DEPARTMENT COURSE TITLE COURSE TITLE	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance according to Identify the procedure of Analyze the equipment a Decide the equipment a site. SEMESTER	7 Comm TCOMI erent t e, repa India I e spec f variou e spec nd und testin and ur 7	for HVDC sy for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, inst us electrical equi ifications, Insta derground cable ng and installa inderground cable D and installa inderground cable D and installa inderground cable COURSE CODE ulation Laborat	stems, cor 15EE752 ctrical Apparate rical equipm tallation and ipment and allation and is tion metho les dependi 15EEL76 ory	COURSE ID ratus (Professi us required for ent and under ind commission underground of testing of ods required ing on the con COURSE ID	C407 C407 Canal Elective or installation, ground cables oning testing cables. the electrical for electrical ndition of the C408
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4 DEPARTMENT COURSE TITLE COURSE TITLE	EEE E NO EEEE	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different according to Identify the procedure of Analyze the equipment a Decide the equipment a site. SEMESTER Power Systerent COURSE OU	7 Comm TCOMI erent t e, repa India I e spe f variou e spec ind und testin and ur 7 7 TCOMI	for HVDC sy for HVDC sy COURSE CODE issioning of Electricity ypes of tools a ir work of electricity Electricity Rules cifications, instant derground cable ing and installar inderground cable COURSE CODE ulation Laborat ESTATEMENTS Deters of transport	stems, cor 15EE752 ctrical Apparator ind apparator ical equipm tallation and allation and is ition methor les dependi 15EEL76 ory	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of ods required ng on the con COURSE ID	C407 C407 Canal Elective or installation, ground cables oning testing cables. the electrical for electrical ndition of the C408
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM	EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss different maintenance according to Identify the procedure of Analyze the equipment a Decide the equipment a site. SEMESTER Power System COURSE OU Describe the swing curve	7 Comm TCOMI erent t e, repa India I e spec ind und testin and ur 7 TCOMI e paran	for HVDC sy for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electric Electricity Rules cifications, insta derground cable ng and installanderground cable Definition Laborat E STATEMENTS neters of transm flow analysis and	stems, cor 15EE752 ctrical Apparator ind apparator ical equipm tallation and allation and is tion methor les dependi 15EEL76 ory hission line, of economic	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of ods required ng on the cor COURSE ID	ilure, control ilure, control c407 ional Elective or installation, ground cables oning testing cables. the electrical for electrical ndition of the c408
DEPARTMENT COURSE TITLE COURSE OUTCOM C407.1 C407.2 C407.3 C407.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C408.1	EEE E NO EEE E NO	converter of functions SEMESTER Testing and – IV) COURSE OU Discuss diffe maintenance according to Identify the procedure of Analyze the equipment a Decide the equipment a site. SEMESTER Power System COURSE OU	7 Comm TCOMI erent t e, repa India I e spec f variou e spec nd und testin and ur 7 TCOMI e paran , load f	for HVDC sy for HVDC sy COURSE CODE issioning of Elect E STATEMENTS ypes of tools a ir work of electre Electricity Rules cifications, instant us electrical equa ifications, Insta derground cable ng and installat inderground cable Deg and installat derground cable Installat Deg and installat derground cable Deg and installat derground cable STATEMENTS neters of transn flow analysis an	stems, cor 15EE752 ctrical Apparate rical equipm tallation and allation and s tion metho les dependi 15EEL76 ory mission line, ad economic	COURSE ID ratus (Professi us required for ent and under nd commission underground of testing of ods required ng on the con COURSE ID	ilure, control         ilure, control         c407         ional Elective         or installation, ground cables         oning testing cables.         the electrical         for electrical         ndition of the         c408         machine, fault, in the power



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C408.2		Explain the concepts of transmission line, synchronous machine, fault,								
		swing curve, load flow analysis and economic load dispatch in the power system								
		system								
C408.3		Apply vario	us nu	merical techni	ques to pe	erform load	flow analysis,			
		economic lo	ad dis	patch problem,	different ty	pes of faults	and calculate			
		various trans	smissic	on line and sync	hronous ma	chine paramet	ters of a given			
	1	power system	m usin	g Matlab/Mipov	ver.					
DEPARTMENT	EEE	SEMESTER	7	COURSE	15EEL77	COURSE ID	C409			
		CODE								
COURSE TITLE		Relay and High Voltage laboratory								
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS						
C409.1	Define the HVDC and di	operat fferen	ing characterist tiate different d	tics of diffe ielectric meo	rent types of lium.	relay, HVAC,				
C409.2		Predict the operating time of different types of relay, breakdow								
		of air and liquid dielectric medium.								
C409.3		Demonstrate	e the c	perating charac	cteristics of o	different types	s of relays and			
		spark over c	haract	eristics of air an	d liquid diel	ectric medium	and calculate			
		the capacita	nce of	parallel plate ca	pacitor and	co-axial cable.				
DEPARTMENT	EEE	SEMESTER	7	COURSE		COURSE ID	C4010			
				CODE	15EEP78					
COURSE TITLE		Project Phas	e – I +	Seminar						
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS						
C4010.1		Demonstrate	e a sou	ind technical kno	owledge of t	heir selected p	project topic.			
C4010.2		Undertake p	roblen	n identification,	formulation	and solution.				
C4010.3		Design engi approach	neerin	g solutions to	complex pr	oblems utilizi	ng a systems			
C4010.4		Communicat	e with	n engineers and	I the comm	unity at large	in written an			
C4010.5		Demonstrate	e the	knowledge, s	kills and a	ttitudes of a	professional			
		engineer.		0,			·			
				M.Tech						
DEPARTMENT	EEE	SEMESTER	3	COURSE		COURSE ID	C201			
			-	CODE	18EPS31					
COURSE TITLE		HVDC Powe	r Trans	mission			•			
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
		Explain the	impo	rtance of DC	power trans	smission, the	methods for			
		simulation of	of HVE	DC systems and	d its contro	l, the protec	tion of HVDC			
C201.1		system and	d oth	er converter	configuratio	ons used fo	r the HVDC			
		transmissior	, the r	ecent trends fo	r HVDC appl	ications ,diffei	rent converter			
		configuratio	ns.							
C201.2		Discuss basi	c comp	ponents of a co	nverter, the	methods for	compensating			
		reactive pov	ver der	manded by the	converter, t	he elimination	of harmonics			
		using filters	, the o	characteristics o	of the system	n impedance	resulting from			
		AC filter des	signs, t	the design tech	niques for t	he main com	ponents of an			
		HVDC system	n, con	nmutation failu	re, interacti	on between	HVDC and AC			
		power syste	ms			_				
C201.3		Design the	main c	components of	an HVDC sy	vstem, main c	ircuit of hvdc			
		systems, cor	itrol fo	or HVDC Systems	5					



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DEPARTMENT	EEE	SEMESTER	3	COURSE CODE	18EPS322	COURSE ID	C202			
COURSE TITLE		Power Syste	m Reli	ability (Professi	ional electiv	e-3)	L			
COURSE OUTCOM	E NO		тсом	E STATEMENTS		•				
C202.1		Evaluate the	reliabi	ility of complex	distribution	systems.				
C202.2		Perform pov	ver svs	stem analysis in	cluding diffe	erent aspects	such as need.			
		availability, a	and add	equacy.	0		····,			
C202.3		Explain vario	ous coi	ncepts and eva	luation tech	niques that ca	an be used to			
		assess opera	tional	risk						
C202.4		Explain prob	ability	concepts for ge	nerating cap	acity reliability	y evaluation.			
DEPARTMENT	EEE	SEMESTER	3	COURSE	40550000	COURSE ID	C203			
				CODE	18EPS332					
COURSE TITLE		Integration	of Rene	ewable Energy	(Professiona	l elective-4)				
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
C202 1		To choose D	C arch	itecture or AC a	rchitecture	for integratior	of smart grid			
C203.1		and inverter	contro	ol voltage and cu	urrent in dist	ributed generation	ation systems.			
C203.2		To explain p	arallel	operation of in	verters and	power conver	ter topologies			
		in distribute	d gene	ration systems.						
C203.3		To apply vol	tage a	nd current cont	rol to three	-phase four w	ire distributed			
		generation i	n island	d mode.						
C203.4		To analyze a	nd asse	ess power flow	control of a s	single distribut	ed generating			
		unit, control of voltage, current in distributed generation system stability								
	-	and PWM re	ctifier	control for thre	ee-phase distributed generation system					
DEPARTMENT	EEE	SEMESTER	3	COURSE		COURSE ID	C204			
			_	CODE	18EPS34					
COURSE TITLE		Evaluation of Project phase -1								
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
C204.1		Demonstrate an ability to identify and formulate a hypothesis for a given problem and test through appropriate experiments.								
C204.2		Apply relevant modern tools to solve the chosen technical problem.								
C204.3		Analyze and evaluate the experimental results and propose suitable								
		modifications to improve performance.								
C204.4		Work effectively as a member or a leader of a team.								
C204.5		Communicate technical content effectively through written report and								
		oral presentations.								
DEPARTMENT	EEE	SEMESTER	3	COURSE		COURSE ID	C205			
				CODE	18EPSI35					
COURSE TITLE		Internship								
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
C205.1		Gain practical experience within industry in which the internship is done								
C205.2		Apply knowl	edge a	nd skills learned	to classroo	m work.				
C205.3		Develop a g	reater	understanding a	about caree	r options while	e more clearly			
		defining per	sonal c	areer goals.						
C205.4		Develop and	refine	oral and writte	n communic	ation skills	1			
DEPARTMENT	EEE	SEMESTER	2	COURSE CODE	18ELE23	COURSE ID	C113			
COURSE TITLE		BASIC ELECT	RICAL	ENGINEERING			1			
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS								



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C113.1	C113.1			Analyze DC and AC circuits.						
C113.2	Identify DC and AC machines, domestic wiring and protective devices									
	required for particular application.									
C113.3		Implement e	electric	al and electror	nagnetic law	vs to solve pr	oblems on DC			
		and AC circu	its and	machines.			<b>.</b>			
C113.4		Explain the c	onstru	ctional and wor	king princip	e of DC and A	C machines.			
DEPARTIVIENT	EEE	SEIVIESTER	Z	CODE	18ELELZ/	COURSEID				
COURSE TITLE		BASIC ELECT	RICAL	ENGINEERING L		Y	I			
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
C117.1		Conduct exp	erimer	nts on DC and A	C circuits.					
C117.2		Conduct ex	perime	ents on safety	aspects, w	viring and co	nsumption of			
		electrical po	wer.		1 /	0	·			
C117.3		Understand	the ba	sic concepts of	f AC and DC	: machines, fu	ises, MCB and			
		UPS								
C117.4		Demonstrate	e the u	sage of differen	t electrical n	neasuring inst	ruments.			
DEPARTMENT	EEE	SEMESTER	4	COURSE	18MAT41	COURSE ID	C211			
COURSE TITLE		Engineering	Mathe	ematics-IV						
COURSE OUTCOM	E NO	COURSE OU	TCOM	E STATEMENTS						
	-	Identify the numerical techniques to solve the problems, special functions.								
C211.1		complex variables, probability, sampling theory and stochastic process.								
C211.2		Compute the solutions using numerical techniques, special functions,								
		complex variables, probability, sampling theory and stochastic process.								
C211.3		Interpret the solutions using numerical techniques, special functions,								
DEDADTAGNIT		complex var	ables,	probability, san	npling theory	and stochast	concess.			
DEPARTIVIENT	CCC	SEIVIESTER	4	CODE	100042	COURSEID	C212			
COURSE TITLE		Power Gene	ration	and Economics						
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
		Describe the general layout/arrangement, advantages/Disadvantages,								
C212.1		working of major equipment and auxiliaries used in conventional power								
		plants and substations.								
C212.2		Classify substations and explain the importance of grounding.								
C212.3		Sketch Hydrograph, load curve, load duration curve, flow duration curve,								
		Substations.								
C212.4		Analyze the economic features of Conventional power plants.								
DEPARTMENT	EEE	SEMESTER	4	COURSE	18EE43	COURSE ID	C213			
				CODE						
COURSE TITLE		Transmissio	n and [	Distribution						
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
C213.1		Analyze the	perfor	mance of trans	mission line	with the effec	t of sag, wind,			
(212.2		Develop the	nt para	imeters.	of different	t types of tran	smission lines			
C213.2		and assess th	niaule reir ne	rformance		i types of traf				
C213.3		Discuss/Desc	cribe	reliability &an	np; quality	of distribut	tion systems.			
	advantages of different transmission & amp; distribution system & amp;									



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	types of conductors & amp; supporting structures.					res.			
C213.4	Describe the various parameters of transmission system, selection of								
		insulators, importance of sag corona & amp; lightening, types of							
		distribution systems & amp; grading.							
DEPARTMENT	EEE	SEMESTER	4	COURSE	18EE44	COURSE ID	C214		
				CODE					
COURSE TITLE		Electric Mot	ors		1		1		
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS					
C214 1		Analyze the	perfor	mance of AC an	d DC motors				
(214.1		, and yee and	perior			·			
C214.2		Employ the	most s	uitable method	of starting a	nd speed cont	rol for AC and		
		DC motors a	nd to s	solve problems o	on AC and De	C motors.			
C214.3		Explain the p	perforr	mance characte	ristics of AC	and DC motor	s for different		
	1	modes of op	eratio	n.					
DEPARTMENT	EEE	SEMESTER	4	COURSE	18EE45	COURSE ID	C215		
				CODE					
COURSE TITLE		Electromagr	netic Fi	eld Theory					
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS					
C215 1		Apply the o	concep	ts of vectors	and its ope	ration in solv	ving problems		
C215.1		associated w	/ith sta	itic, steady and	time varying	fields.			
C215.2		Apply the la	ws of	Electrostatics,	Magnetostat	ics and Electr	omagnetics in		
		developing Maxwell's equations for static and time varying fields.							
C215.3		Analyze the performance of electromagnetic fields and waves using							
		Maxwell's equation in different media and also at the boundaries.							
C215.4		Develop the relationship between electric and magnetic fields under							
		steady conditions							
DEPARTMENT	EEE	SEMESTER	4	COURSE	18EE46	COURSE ID	C216		
				CODE					
COURSE TITLE		Linear ICs ar	nd App	lications					
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS							
C216 1		Design and develop models using linear integrated circuits for a given							
C210.1		specification.							
C216.2		Analyze the working of different applications of op-amps.							
C216.3		Solve problems related to op-amps, timers, voltage regulators and PLL.							
C216.4		Understand the basics of linear integrated circuits (op-amps, timers,							
		voltage regulators and PLL)							
DEPARTMENT	EEE	SEMESTER	4	COURSE	18EEL47	COURSE ID	C217		
				CODE					
COURSE TITLE		Electrical Ma	achine	s Laboratory		•			
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS							
		Test DC machines to determine their characteristics and also to control the							
C217.1	speed of DC motor								
C217 2		Dro dotore:	no +L	o porforment-	characte!	stics of DC	machinas by		
C217.2		Pre-determin	ne th	e performance	characteri	STICS OF DC	machines by		
0047.0		conducting s	suitable	e tests.					
(217.3		Perform loa	a test	on single phas	se and three	e phase induc	tion motor to		
6247.4		assess its pe	rrorma	ince.					
C217.4		Conduct tes	t on	induction moto	or and on a	synchronous r	notor to pre-		
		determine th	ne pert	formance chara	cteristics.				
NEDADTRACKIT	I FFF	SEMESTER	4	COURSE	18FFL48	COURSEID	L C218		



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				CODE						
		Linear ICs ar	d Ann	lications Labora	atory					
		Dosign and h		rious linear int	aratod circu	uite				
C218.1										
C218.2		Troubleshoo	t and t	est various line	ar integrated	d circuits.				
C218.3		Apply the co	oncept	s of electronics	of electron	iic component	s in designing			
		and building	variou	is linear integrat	ted circuits.	•				
DEPARTMENT	EEE	SEMESTER	6	COURSE	17EE61	COURSE ID	C311			
				CODE						
COURSE TITLE		Control Syst	ems							
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS						
C211.1		Develop ma	ithema	itical models o	f open loop	o and closed	loop physical			
C311.1		systems.								
C311.2		Analyze time	e respo	onse and freque	ncy response	e of a control s	ystem.			
C311.3		Determine t	he sta	bility of a syst	em in the t	ime and frequ	uency domain			
		through diffe	erent n	nethods.			-			
C311.4		Develop a c	ontrol	system model	in continuc	ous and discre	te time using			
		state variabl	e techi	niques.			0			
DEPARTMENT	EEE	SEMESTER	6	COURSE	17EE62	COURSE ID	C312			
				CODE						
COURSE TITLE		Power Syste	m Ana	lvsis-l			1			
COURSE OUTCOM	E NO	COURSE OUTCOME STATEMENTS								
		Describe representation of power system in its equitant circuit and								
C312.1		in one line diagram								
0012.11		Define symmetrical and Unsymmetrical faults and system stability								
(312.2		Understand per unit system, symmetrical components and classify								
CJIE.E		the faults and its severity.								
		<ul> <li>Evaluation about nower system stability and the dynamics of</li> </ul>								
		synchronous machine								
(212.2		Use the tool of symmetrical components and per unit system for fault								
C312.5		calculations and equal area criterion for stability calculation								
C212 4		Analyze different faults in the nower system and examine the stability								
C512.4		conditions of the system								
			c		175562		C212			
DEPARTIVIENT		SEIVIESTER	0	CODE	1/2205	COURSEID	C313			
		Digital Signa	Drock							
COURSE OUTCOIN		COURSE OUTCOME STATEMENTS								
C313.1		Apply fast and efficient algorithms for computing DFT and inverse DFT of a								
C212.2		given seque	te imm							
C313.2		Design infinite impulse response Butterworth and Chebyshev digital filters								
C212 2				hu uso of wind		on technique.				
C313.3		Design FIR 1	liters	by use of wind	low function	n or by freque	ency sampling			
6212.4		method.		filter les alles t	l.					
C313.4		Realize a dig	itai IIR	Thter by direct,	cascade, pa	railel and ladd	er methods of			
		realization.	6	001/007	47556	001100-1-	001.0			
DEPARTMENT	LEE	SEMESTER	6	COURSE	1/EE64	COURSE ID	C314			
		-		CODE						
COURSE TITLE		Electrical Machine Design								



## **Department of Electrical & Electronics Engineering**

COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS								
C314.1	Design overall dimensions of AC and DC machines based on Specific									
		Loadings								
C314.2		To carry out a detailed design of AC and DC machines								
C314.3		Examine var	ious pe	erformance indi	ces of the de	esigned AC and	d DC machines			
		as per specif	ied cor	nstraints/standa	ards					
C314.4		Explain the f	actors	to be considere	d in selectin	g the material	s for design of			
		various parts	s of ele	ctrical machine	s					
DEPARTMENT	EEE	SEMESTER	SEMESTER 6 COURSE 17EE651 COURSE ID C315 CODE							
COURSE TITLE		Computer A	ided El	ectrical Drawin	g (Professio	nal Elective-II)	•			
COURSE OUTCOM	E NO		тсом	E STATEMENTS	••	-				
C315.1		Design the s	ectiona	al views of Trans	sformers, DC	machines and	d Alternators.			
C315.2		Develop a la	yout fo	or substation us	ing the stan	dard symbols	for substation			
		equipment	•		0					
C315.3		To interpret	the no	otations and for	rmulas requi	ired and desig	n the winding			
		diagrams of	AC and	DC machines.			C C			
DEPARTMENT	EEE	SEMESTER	6	COURSE	17EE663	COURSE ID	C316			
				CODE						
COURSE TITLE		Batteries an	d Fuel	Cells for Comm	ercial, Milita	ary and Space	Applications			
		(Open Electi	Open Elective-II)							
<b>COURSE OUTCOM</b>	E NO	COURSE OUTCOME STATEMENTS								
00464		Able to discuss the performance capabilities and limitations of								
C316.1		rechargeable batteries and fuel cells								
C316.2		Able to discuss fuel cells that are best suited for applications where								
		electrical power requirements vary between several kilowatts (kW) to a								
		few megawatts (MW)								
C316.3		Able to discuss the high-power batteries currently used by EVs and HEVs								
		and various next-generation rechargeable batteries best suited for all-								
		electric cars, EVs, and HEVs.								
C316.4		Able to explain the design aspects and performance characteristics of								
		micro-and nano-batteries best suited for detection, sensing, and								
		monitoring devices.								
DEPARTMENT	EEE	SEMESTER	6		17FF662	COURSE ID	C317			
COURSE TITLE		Sensors and	Transo	lucers (Open Fl	ective-II)					
COURSE OUTCOM	F NO	COURSE OUTCOME STATEMENTS								
C317.1		Understand the operating principle of different sensors, transducers.								
C317.2		Apply the knowledge of sensors and transducers to measure non electrical								
		parameters.								
C317.3		Analyze and	evalua	te the performa	ance of diffe	rent sensors, t	ransducers			
		based syster	ns							
C317.4		Create a syst	tems u	sing appropriate	e sensor for	measuring Ele	ctrical and			
	r	non Electrica	al quan	tities			1			
DEPARTMENT	EEE	SEMESTER	6	COURSE		COURSE ID	C318			
				CODE	17EEL67					
COURSE TITLE		Control Syst	em Lak	poratory						
<b>COURSE OUTCOM</b>	COURSE OUTCOME STATEMENTS									



# **Department of Electrical & Electronics Engineering**

		Use software package or discrete components in assessing the time and frequency domain reposes of a given second order system and to study								
C318.1		the effect of P, PI, PD and PID controller and Lead compensator on the								
		step response of the system.								
C318.2		Design and	analyz	, e Lead, Lag ar	nd Lag – Le	ad compensat	tors for given			
		specification	s		Ū		C			
C318.3		Write a scrip	t files	to plot root loc	us, bode plo	t, Nyquist plot	ts to study the			
		stability of th	ne syst	em using a soft	ware packag	e.				
C318.4		Determine t	he per	formance chara	cteristics of	ac and dc ser	vomotors and			
	1	synchro-tran	smitte	r receiver pair u	ised in contr	ol systems				
DEPARTMENT	EEE	SEMESTER	SEMESTER 6 COURSE COURSE ID C319							
				CODE	17EEL68					
	<b>F NO</b>	Digital Signa	I Proce	essing Laborato	ry					
COURSE OUTCOIVI	ENO	COURSE OU		STATEIVIENTS	unling theory					
C319.1		Give physica	inter	orelation of sam	iping theore	2111				
C319.2		Evaluate the	impul	se response of a	i system.					
C319.3		To solve the	Differe	ence Equation			-			
C319.4		Perform con	volutio	n of given sequ	ences to eva	luate the resp	onse of a			
0010 5		system.	<b>T</b>				- <b>(</b> ' - ' - '			
C319.5		Compute DFT and IDFT of a given sequence using the basic definition								
C210 C		diu/or last methods.								
	EEE									
DEPARTIVIENT		SEIVIESTER	0	CODE	15FF81	COOKSEID	C411			
	Power System Operation and Control									
COURSE TITLE		Power Syste	m Ope	ration and Con	trol					
COURSE TITLE	E NO	Power Syste	m Ope TCOMI	ration and Con STATEMENTS	trol					
COURSE TITLE COURSE OUTCOM	E NO	Power Syste COURSE OU Illustrate th	m Ope TCOMI e conc	ration and Con STATEMENTS cepts of operation	trol tion, monito	oring, control,	security and			
COURSE TITLE COURSE OUTCOM C411.1	E NO	Power Syste COURSE OU Illustrate th reliability of	m Ope TCOME e conc power	ration and Con STATEMENTS Septs of operations system.	trol tion, monito	oring, control,	security and			
COURSE TITLE COURSE OUTCOM C411.1 C411.2	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n	m Ope FCOME e conc power umeric	ration and Con STATEMENTS cepts of operat system. cal, analytical a	trol tion, monito nd optimal	oring, control, solutions of (	security and			
COURSE TITLE COURSE OUTCOM C411.1 C411.2	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems.	m Ope TCOMI e conc power umeric	<b>EXAMPLE AND</b> STATEMENTS Septs of operation system. Stal, analytical a	tion, monito	oring, control, solutions of (	security and power system			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3	ENO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the	m Ope FCOMI e conc power umeric econc	<b>STATEMENTS</b> Expts of operations system. Eval, analytical a mic operation,	trol tion, monitond nd optimal control by	oring, control, solutions of p AGC and LFC,	security and power system , contingency,			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima	m Ope	<b>STATEMENTS</b> Septs of operations system. Cal, analytical a mic operation, d stability of po	trol tion, monito nd optimal control by wer system.	oring, control, solutions of p AGC and LFC,	security and power system , contingency,			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4	ENO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A	m Ope TCOMI e conc power umeric econc tion an AGC an	ration and Con STATEMENTS cepts of operations cal, analytical a mic operation, d stability of po d AVR for single	trol tion, moniton nd optimal control by wer system. and two are	oring, control, solutions of p AGC and LFC,	security and power system , contingency, ems.			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER	m Ope TCOMI e conc power umeric econo tion an AGC an 8	ration and Con STATEMENTS epts of operations cal, analytical a mic operation, d stability of poor d AVR for single COURSE CODE	tion, monito nd optimal control by wer system. and two are	oring, control, solutions of p AGC and LFC, ea power syste COURSE ID	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER	m Ope TCOMI e conc power umeric econc tion an AGC an 8 ives at	ration and Con STATEMENTS Exepts of operations al, analytical a mic operation, d stability of po d AVR for single COURSE CODE	trol tion, monito nd optimal control by wer system. and two are 15EE82	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b>	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE OUTCOM	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar TCOMI	ration and Con STATEMENTS Expts of operations system. Cal, analytical a mic operation, d stability of poor d AVR for single COURSE CODE nd Applications STATEMENTS	tion, monito nd optimal control by wer system. and two are 15EE82	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b>	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C412.1	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the	m Ope TCOMI e conc power umeric econc tion an AGC an 8 ives ar TCOMI perform	ration and Con STATEMENTS Exepts of operations al, analytical a mic operation, d stability of poor d AVR for single COURSE CODE nd Applications STATEMENTS nance of electri	trol tion, monito nd optimal control by wer system. and two are 15EE82	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C412.1 C412.2	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar rCOMI perform speed	ration and Con STATEMENTS Expts of operations system. Stal, analytical a mic operation, d stability of poor d AVR for single COURSE CODE nd Applications STATEMENTS nance of electric	trol tion, monito nd optimal control by wer system. and two are 15EE82	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C412.1 C412.2	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for	m Ope TCOMI e conc power umeric econc tion an AGC an 8 ives ar TCOMI perform speed differe	ration and Con STATEMENTS Exepts of operations al, analytical a mic operation, d stability of poor d AVR for single COURSE CODE and Applications STATEMENTS nance of electric control, multi-control, mul	trol tion, monito nd optimal control by wer system. and two are <b>15EE82</b> c drives and quadrant options c using pov	oring, control, solutions of p AGC and LFC, ea power syste COURSE ID stability limits eration, brakin	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3	E NO	Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar rCOMI perform speed differe e drive	ration and Con STATEMENTS approximation system. al, analytical a mic operation, d stability of poor d AVR for single COURSE COURSE CODE and Applications STATEMENTS nance of electric control, multi-operation parameters a	trol tion, monito nd optimal control by wer system. and two are <b>15EE82</b> c drives and quadrant ope es using pov and control	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters	security and power system , contingency, ems. C412  ag and starting controllers. for the given			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3		Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate situation	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar TCOMI perform speed differe e drive	ration and Con STATEMENTS eepts of operation, sal, analytical a mic operation, d stability of po d AVR for single COURSE CODE and Applications STATEMENTS nance of electric control, multi-operation ent types of drive parameters a	trol tion, monito nd optimal control by wer system. and two are <b>15EE82</b> c drives and quadrant option res using povies	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters	security and power system , contingency, ems. C412			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3 DEPARTMENT		Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate situation SEMESTER	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar rCOMI perform speed differe e drive	ration and Con STATEMENTS approximation system. al, analytical a mic operation, d stability of po d AVR for single COURSE CODE nd Applications STATEMENTS nance of electric control, multi-operation ent types of drive parameters a COURSE	trol tion, monito nd optimal control by wer system. and two are <b>15EE82</b> c drives and quadrant option es using povies and control	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters	security and power system , contingency, ems. C412  ag and starting controllers. for the given C413			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3 DEPARTMENT		Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate situation SEMESTER	m Ope TCOMI e conc power umeric econc tion an AGC an 8 ives ar TCOMI perforr speed differe e drive 8	ration and Con STATEMENTS Exepts of operation, al, analytical a mic operation, d stability of po d AVR for single COURSE CODE nd Applications STATEMENTS nance of electric control, multi-operation ent types of drive parameters a COURSE CODE	trol tion, monito nd optimal control by wer system. and two are 15EE82 c drives and quadrant op res using pov and control 15EE831	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters f <b>COURSE ID</b>	security and power system , contingency, ems. C412 c, ag and starting controllers. for the given C413			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3 DEPARTMENT COURSE TITLE		Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate situation SEMESTER Smart Grid (	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar FCOMI perform speed differe e drive 8 Profes:	ration and Con STATEMENTS Exepts of operation, eal, analytical a mic operation, d stability of po d AVR for single COURSE CODE and Applications STATEMENTS mance of electric control, multi-operation and types of drive parameters a COURSE CODE sional Elective-1	trol tion, monito nd optimal control by wer system. and two are 15EE82 c drives and quadrant op res using pov and control 15EE831 5)	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters	security and power system , contingency, ems. C412  ag and starting controllers. for the given C413			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE TITLE COURSE OUTCOM		Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate situation SEMESTER Smart Grid ( COURSE OU	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar TCOMI perforr speed differe e drive 8 Profess TCOMI	ration and Con STATEMENTS Expts of operation, cal, analytical a mic operation, d stability of poor d AVR for single COURSE CODE nd Applications STATEMENTS nance of electric control, multi-control, multi-control, multi-control parameters a COURSE CODE sional Elective-1 STATEMENTS	trol tion, monito nd optimal control by wer system. and two are <b>15EE82</b> c drives and quadrant operation res using pover and control <b>15EE831</b>	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters	security and power system , contingency, ems. C412  ag and starting controllers. for the given C413			
COURSE TITLE COURSE OUTCOM C411.1 C411.2 C411.3 C411.3 C411.4 DEPARTMENT COURSE TITLE COURSE OUTCOM C412.1 C412.2 C412.3 DEPARTMENT COURSE TITLE COURSE TITLE COURSE TITLE COURSE OUTCOM C413.1		Power Syste COURSE OU Illustrate th reliability of Apply the n problems. Analyze the state estima Model LFC, A SEMESTER Industrial Dr COURSE OU Analyse the Examine the methods for To calculate situation SEMESTER Smart Grid ( COURSE OU To acquire th	m Ope TCOMI e conc power umeric econo tion an AGC an 8 ives ar TCOMI perforr speed differe e drive 8 Profess TCOMI he know	ration and Con STATEMENTS Septs of operation, eal, analytical a mic operation, d stability of po d AVR for single COURSE CODE and Applications STATEMENTS mance of electric control, multi-control, multi-control, multi-control ent types of drive parameters a COURSE CODE sional Elective-1 STATEMENTS wledge and desi	trol tion, monito nd optimal control by wer system. and two are 15EE82 c drives and quadrant op res using pov and control 15EE831 5)	oring, control, solutions of p AGC and LFC, ea power syste <b>COURSE ID</b> stability limits eration, brakin ver electronic parameters of <b>COURSE ID</b> of smart grid	security and power system , contingency, ems. C412  ag and starting controllers. for the given C413			



# **Department of Electrical & Electronics Engineering**

		smart grid							
C413.3		To acquire entrepreneurial qualities and their role in Dynamic energy							
		system							
C413.4		To acquire end use electric efficient technology alternatives, market							
		implementat	tion an	d their policies.					
DEPARTMENT	EEE	SEMESTER	8	COURSE		COURSE ID	C414		
				CODE	15EE833				
COURSE TITLE	•	Integration of	of Dist	ributed Generat	tion (Profess	ional Elective	-5)		
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS			-		
		Evaluate the	e quan	tum of power	that can be	e harnessed f	rom different		
C414.1		sources of e	nergy.	•					
C414.2		Examine th	e imp	pact of distrib	outed gene	ration on p	ower quality,		
		overloading	of line	s and voltage.	•	·			
C414.3		Apply nume	rical a	nd probabilistic	approach fo	or the design	of distribution		
		feeder integ	rated v	with distributed	generation	and statistica	l approach for		
		hosting capa	city de	etermination.	-				
DEPARTMENT	EEE	SEMESTER	8	COURSE		COURSE ID	C415		
				CODE	15EE84				
COURSE TITLE	•	Internship /	Profes	sional Practice			•		
COURSE OUTCOM	E NO	COURSE OU	тсомі	E STATEMENTS					
C415.1		Gain practica	al expe	rience within in	dustry in wh	ich the intern	ship is done		
C415.2				nd skills loornoo					
C415.2		Apply knowledge and skills learned to classroom work.							
(415.5		defining personal screer goals							
C415 4		Develop and refine and written communication skills							
	EEE		•				C/16		
DEPARTIVIENT		SEIVIESTER	0	CODE	1555005	COOKSEID	C410		
		Project Wor	k Dhac		IJEF0J				
			тсом						
		Demonstrate an ability to identify and formulate a hypothesis for a given							
C416.1		problem and test through appropriate experiments							
C416.2		Apply relevant modern tools to solve the chosen technical problem							
C410.2		Analyze and evaluate the experimental results and propose suitable							
C410.5		modifications to improve performance							
C416 4		Work effecti		a member or a	leader of a t	eam			
C416 5		Communicat	e tech	nical content	effectively t	hrough writte	on report and		
0410.5		oral present	ations		chectively t	mough white			
DEPARTMENT	FFF	SEMESTER	8	COURSE			C417		
		SEMESTER	Ŭ	CODE	15FF\$86	COONSEID	C417		
		Seminar		CODE	1522000				
			тсомі	STATEMENTS					
		Attain use a	nd day		a in the field	of electrical a	nd electronics		
C417 1		Attain, use and develop knowledge in the field of electrical and electronics							
041/11		collaborative	studv			independent			
C417.2		Identify und	erstan	d and discuss ci	Irrent, real-t	ime issues			
L417.2     Identify, understand and discuss current, real-time issues									
L417.5		Improve oral and written communication skills							
C417.3		Improve ora	l and w	ritten commun	ication skills	n to its larger	diverse social		
C417.3 C417.4		Improve ora Explore an a	l and w appreci	vritten commun iation of the se	ication skills If in relatior	n to its larger	diverse social		



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## ACHARYA INSTITUTE OF TECHNOLOGY

## **Department of Electrical & Electronics Engineering**

Bengaluru-560107

#### M.Tech

DEPARTMENT	EEE	SEMESTER	4	COURSE		COURSE ID	C211		
				CODE	18EPS41				
COURSE TITLE		Project work phase -2							
COURSE OUTCOM	E NO	COURSE OU	тсом	E STATEMENTS					
C211 1	Demonstrate an ability to identify and formulate a hypothesis for a given								
C211.1		problem and test through appropriate experiments.							
C211.2		Apply releva	nt moo	dern tools to sol	ve the chose	osen technical problem.			
C211.3		Analyze and evaluate the experimental results and propose suitable							
	modifications to improve performance.								
C211.4		Work effecti	vely as	a member or a	leader of a t	eam.			
C211.5		Communicat	te tech	nnical content	effectively t	hrough writte	en report and		
oral presentations.									