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CMR
INSTITUTE OF
TECHNOLOGY

Session wise – Course Plan

Department of Computer Science and Engineering

SEMESTER : III –A,B
BRANCH : TCE
SUBJECT : ENGINEERING MATHS-3
SUBJECT CODE : 15MAT31
NO OF HRS/WK : 6

NAME OF THE FACULTY : Uma Raju
DATE OF COMMENCEMENT : 7/8/2017
DATE OF CLOSING : 25/11/2017
CLASS STRENGTH : 60
TOTAL HRS : 60

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	**1/1**	7/8/2017	**MODULE 1: Fourier Series** Convergence and divergence of infinite series of positive terms-definition and illustrative examples	Chalk & Talk	Assignment- I	
2	**2/1**	8/8/2017	Periodic functions, Dirichlet's conditions, Fourier series of periodic functions of period 2π	,,		
3	**3/1**	9/8/2017	Fourier series of periodic functions of period$(-\pi, \pi)$	,,		
4	**4/1**	10/8/2017	Even and odd functions of period 2π	,,		
5	**5/1**	11/8/2017	Even and odd functions of period$(-\pi, \pi)$	,,		
6	**6/1**	12/8/2017	Fourier series of periodic functions for arbitrary period 2l	,,		
7	**7/1**	14/8/2017	Fourier series of periodic functions for arbitrary period (-l,l)	‘’		
8	**8/1**	16/8/2017	Half range Fourier series in $(0, \pi)$	,,		

9	**9/1**	17/8/2017	Half range Fourier series in (0, l)	,,		
10	**10/1**	18/8/2017	Practical harmonic analysis	,,		
11	**11/1**	19/8/2017	Complex form of Fourier series	,,		
12	**12/1**	21/8/2017	Miscellaneous problems	,,		
13	**½**	22/8/2017	**MODULE 2 :Numerical Methods -** Finite differences, forward and backward differences	,,	Assignment -II	
14	**2/2**	23/8/2017	Newton's forward and backward interpolation formulae	,,		
15	**3/2**	24/8/2017	Problems on interpolation	‘’		
16	**4/2**	28/8/2017	Divided differences	,,		
17	**5/2**	29/8/2017	Newton's divided difference formula	,,		
18	**6/2**	30/8/2017	Problems on Newton's divided difference formula	,,		
19	**7/2**	31/8/2017	Lagrange's interpolation formula - problems	,,		
20	**8/2**	1/9/2017	Lagrange's inverse interpolation formula-problems	,,		
21	**9/2**	4/9/2017	Numerical integration-Simpson's 1/3,3/8 th rule-problems	,,		
22	**10/2**	5/9/2017	Weddle's rule -problems	,,		
23	**1/3**	6/9/2017	**MODULE 3:Fourier Transforms** Infinite Fourier transform	‘’	Assignment –III	
24	**2/3**	7/9/2017	Problems continued	,,		
25	**3/3**	8/9/2017	Fourier sine and cosine transforms	,,		
26	**4/3**	9/9/2017	Problems continued	,,		
27	**5/3**	11/9/2017	Fourier sine and cosine- inverse transforms	,,		
28	**6/3**	12/9/2017	Infinite Fourier transform - properties	,,		
29	**7/3**	13/9/2017	Fourier sine and cosine transforms - properties	,,		

30	**8/3**	14/9/2017	**Z Transforms** Difference equations, Z- transforms, definition,	,,		
31	**9/3**	15/9/2017	Standard Z- transforms-Formulas	,,		
32	**10/3**	22/9/2017	Damping rule, shifting rule-problems	‘’		
33	**11/3**	23/9/2017	Initial value and final value theorem-problems	,,		
34	**12/3**	25/9/2017	Inverse Z -transform	,,		
35	**13/3**	26/9/2017	Applications of Z -transforms to solve difference equations	,,		
36	**14/3**	27/9/2017	Problems continued	,,		
37	**¼**	28/9/2017	**MODULE 4 :Numerical Methods** Numerical solution of algebraic and transcendental equations	,,	Assignment -IV	
38	**2/4**	3/10/2017	Regula-Falsi method	,,		
39	**¾**	4/10/2017	Problems continued	‘’		
40	**4/4**	6/10/2017	Newton Raphson method	,,		
41	**5/4**	7/10/2017	Curve fitting by the method of least squares	,,		
42	**6/4**	9/10/2017	Fitting of curves of the form y=a+bx,	,,		
43	**7/4**	10/10/2017	Fitting of curves of the form $y=ax^2+bx+c$, $y=ae^{bx}$, $y=ax^b$	,,		
44	**8/4**	11/10/2017	Correlation	,,		
45	**9/4**	12/10/2017	Regression Coefficients	,,		
46	**10/4**	13/10/2017	lines of Regression.	,,		
47	1/5	14/10/2017	**MODULE 5**: Line integral,_defnition and problems	‘’	Assignment -V	
48	2/5	16/10/2017	Surface and volume integrals	,,		

49	3/5	17/10/2017	Definition and problems	”		
50	4/5	23/10/2017	Green’ s theorem in a plane(Without proof)-problems	”		
51	**5/5**	24/10/2017	Stokes and Gauss divergence theorem(without proof)-problems	”		
52	**6/5**	25/10/2017	Calculus of variations-Introduction	”		
53	**7/5**	26/10/2017	Problems	”		
54	**8/5**	27/10/2017	Variation of function	”		
55	**9/5**	28/10/2017	Functional-Definition	‘’		
56	**10/5**	30/10/2017	Variational problems	”		
57	**11/5**	31/10/2017	Euler’s equation	”		
58	**12/5**	2/11/2017	Geodesics	”		
59	**13/5**	3/11/2017	Minimal surface of revolution	”		
60	**14/5**	4/11/2017	Hanging chain problems.	”		

Syllabus for Internal Assessment Tests (IAT)*

Sessional #	Syllabus
T1	Class # 01 - 31
T2	Class # 31 – 54
T3	54-60

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	B.S. Grewal, Higher Engineering Mathematics, Latest Edition, Khanna publishers	Latest edition, Khanna publications	8174091955

Text Book	TB2	Erwin Kreyszig, Advanced Engineering Mathematics	Latest Edition Wiley India publishers	978812653135
References	RB1	B.V Ramana, Higher Engineering Mathematics,.	Latest Edition, Tata Mc. Graw Hill Publications	---
References	RB2	Peter V . O'Neil, Engineering Mathematics.	Cengage Learning India Pvt. Ltd. Publishers	---
References	RB3	Dr. D.S.C , Engineering Mathematics III	5^{th} Edition 2011 6^{th} edition 2016	978-81-7686-675-4
References	RB4	Dr. K.S.C , Engineering Mathematics III	2011-2012 2016 edition	---

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CMR INSTITUTE OF TECHNOLOGY

Session wise – Course Plan

Department of Telecommunication

SEMESTER : III
BRANCH : TCE
SUBJECT : ANALOG ELECTRONICS
SUBJECT CODE : 15EC32
NO OF HRS/WK : 5

NAME OF THE FACULTY : ANINDITA SAHOO
DATE OF COMMENCEMENT : 07.08.2017
DATE OF CLOSING : 17.11.2017
CLASS STRENGTH : 50
TOTAL HRS : 58

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	Module-1/1	07-08-17	BJT Transistor Modeling	Board, chalk, duster		
2	Module-1/2	08-08-17	The re transistor model	,,		
3	Module-1/3	09-08-17	Common emitter fixed bias	,,		
4	Module-1/4	11-08-17	Voltage divider bias	,,		
5	Module-1/5	12-08-17	Emitter follower configuration	,,		
6	Module-1/6	14-08-17	Darlington connection-DC bias	,,		
7	Module-1/7	16-08-17	The Hybrid equivalent model	,,		
8	Module-1/8	17-08-17	Approximate Hybrid Equivalent Circuit-Fixed bias	Board, chalk, duster		
9	Module-1/9	19-08-17	Voltage divider	,,		
10	Module-1/10	21-08-17	Emitter follower configuration	,,		

11	Module-1/11	22-08-17	Complete Hybrid equivalent model	,,	Assignment- I	
12	Module-1/12	23-08-17	Hybrid π Model	,,		
13	Module-2/1	24-08-17	Construction of JFETs	,,		
14	Module-2/2	29-08-17	Characteristics of JFETs	,,		
15	Module-2/3	30-08-17	Transfer Characteristics			
16	Module-2/4	31-08-17	Depletion type MOSFET			
17	Module-2/5	01-09-17	Enhancement type MOSFET			
18	Module-2/6	04-09-17	JFET small signal model	,,		
19	Module-2/7	06-09-17	Fixed bias configuration	,,		
20	Module-2/8	07-09-17	Self bias configuration	,,		
21	Module-2/9	08-09-17	Voltage divider configuration	,,		
22	Module-2/10	09-09-17	Common Gate configuration	,,		
23	Module-2/11	11-09-17	Source-Follower Configuration		Assignment- II	
24	Module-2/12	13-09-17	Cascade configuration	Board, chalk, duster		
25	Module-3/1	14-09-17	Logarithms, Decibels	,,		
26	Module-3/2	15-09-17	Low frequency response – BJT Amplifier with RS	,,		
27	Module-3/3	22-09-17	Low frequency response – BJT Amplifier with RL	,,		
28	Module-3/4	23-09-17	Low frequency response – BJT Amplifier with both RS and RL	,,		
29	Module-3/5	26-09-17	Low frequency response-	,,		

			FET Amplifier with RS			
30	Module-3/6	27-09-17	Low frequency response – FET Amplifier with RL	,,		
31	Module-3/7	28-09-17	Low frequency response – BJT Amplifier with both RS and RL	,,		
32	Module-3/8	03-10-17	Miller effect capacitance	,,		
33	Module-3/9	04-10-17	High frequency response – BJT Amplifier	Board, chalk, duster		
34	Module-3/10	07-10-17	High frequency response- FET Amplifier	,,		
35	Module-3/11	09-10-17	Multistage Frequency Effects	,,	Assignment –III	
36	Module-3/12	10-10-17	Numerical	,,		
37	Module-4/1	11-10-17	Feedback concepts	,,		
38	Module-4/2	12-10-17	Feedback connection types	,,		
39	Module-4/3	14-10-17	Practical feedback circuits	,,		
40	Module-4/4	16-10-17	Practical feedback circuits parameters calculations	,,		
41	Module-4/5	17-10-17	Oscillator operation	,,		
42	Module-4/6	23-10-17	FET Phase shift oscillator	,,		
43	Module-4/7	24-10-17	Wein bridge oscillator	,,		
44	Module-4/8	26-10-17	Tuned Oscillator circuit: COLPITT Oscillator	,,		
45	Module-4/9	27-10-17	Tuned Oscillator circuit: Hartley Oscillator	,,		
46	Module-4/10	28-10-17	Crystal oscillator	,,		

47	Module-4/11	30-10-17	UJT construction	,,	Assignment –IV	
48	Module-4/12	31-10-17	UJT Oscillator	,,		
49	Module-5/1	03-11-17	Definition and amplifier types	Board, chalk, duster		
50	Module-5/2	04-11-17	Series fed class A amplifier	,,		
51	Module-5/3	09-11-17	Transformer coupled class A amplifier	,,		
52	Module-5/4	10-11-17	Class B amplifier operation and circuits	,,		
53	Module-5/5	13-11-17	Amplifier distortion	,,		
54	Module-5/6	14-11-17	Class C and Class D amplifiers	,,		
55	Module-5/7	15-11-17	Voltage regulators	,,		
56	Module-5/8	16-11-17	Discrete transistor voltage regulation	,,		
57	Module-5/9	16-11-17	Series Voltage regulators	,,	Assignment –V	
58	Module-5/10	17-11-17	Shunt Voltage regulators	,,		

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CMR INSTITUTE OF TECHNOLOGY

Session wise – Course Plan

Department of Electronics and communication

SEMESTER :IIINAME OF THE FACULTY :Vinay B K
SECTIONS: ADATE OF COMMENCEMENT :7.08.2017
SUBJECT :Digital Electronics DATE OF CLOSING : 25.11.2017
SUBJECT CODE:10EC33 CLASS STRENGTH : 50.
NO OF HRS/WK:5 TOTAL HRS : 50

Session No	Chapter no (No of hrs planed for the Module)	Date	Topics planned for the session	Teaching Aids	Assignments/ Tests/ seminars /projects	Topics covered As per plan
1	**1/1**	7.08.2017	Definition of combinational logic, canonical forms, Generation of switching equations from truth tables	Board, chalk, duster		
2	**2/1**	8.08.2017	Karnaugh maps-3 variables	"		
3	**3/1**	9.08.2017	Karnaugh maps-4 variables	,,		
4	**4/1**	10.08.2017	Karnaugh maps-5 variables	,,		
5	**5/1**	11.08.2017	Incompletely specified functions(Don't care terms) Simplifying Max term equations,	,,		
6	**6/1**	12.08.2017	Quine-McCluskey minimization technique	,,	A0 Submit	
7	**7/1**	14.08.2017	Quine-McCluskey using don't care terms.	,,	A1 release	

8	**8/1**	17.08.2017	Examples	Board, chalk, duster		
9	**9/1**	18.08.2017	Reduced prime implicants Tables.	,,		
10	**10/1**	19.08.2017	Examples	,,		
11	**1/2**	21.08.2017	General approach to combinational logic design,	,,		
12	**2/2**	22.08.2017	Decoders, BCD decoders			
13	**3/2**	23.08.2017	Encoders	,,		
14	**4/2**	24.08.2017	digital multiplexers	,,	A1 submit	
15	**5/2**	26.08.2017	Using multiplexers as Boolean function generators	,,		
16	**6/2**	28.08.2017	Examples		A2 release	
17	**7/2**	29.08.2017	Adders and subtractors			
18	**8/2**	30.08.2017	Cascading full adders			
19	**9/2**	31.08.2017	Look ahead carry adder	,,		
20	**10/2**	1.09.2017	Binary comparators	,,		
21	**1/3**	4.09.2017	Basic Bistable elements	,,		
22	**2/3**	6.09.2017	Latches, SR Latch,	,,		
23	**3/3**	7.09.2017	Timing considerations	,,		
24	**4/3**	8.09.2017	SR Flip flop		A2 submit	
25	**5/3**	9.09.2017	D Flip flop			
26	**6/3**	11.09.2017	JK flip-flops	Board, chalk, duster	A3 Release.	
27	**7/3**	11.09.2017	The master-slave flip-flops	,,		
28	**8/3**	12.09.2017	Edge triggered flip-flops	,,		
29	**9/3**	13.09.2017	Characteristic equations	,,		

30	**10/3**	14.09.2017	examples	,,		
31	**1/4**	15.09.2017	Registers	,,		
32	**2/4**	16.09.2017	binary ripple counters	,,		
33	**3/4**	18.09.2017	synchronous binary counters	,,		
34	**4/4**	20.09.2017	examples	,,	A3 submit	
35	**5/4**	21.09.2017	Counters based on shift registers	Board, chalk, duster	A4 release	
36	**6/4**	22.09.2017	Design of a synchronous counters	,,		
37	**7/4**	23.09.2017	examples	,,		
38	**8/4**	25.09.2017	Design of a synchronous mod-n counter using clocked D FF	,,		
39	**9/4**	26.09.2017	Design of a synchronous mod-n counter using clocked SR FF	,,		
40	**10/4**	27.09.2017	Design of a synchronous mod-n counter using clocked T , JK FF	,,		
41	**1/5**	28.09.2017	Mealy and Moore models	,,		
42	**2/5**	3.10.2017	State machine notation	,,	A4 submit	
43	**3/5**	4.10.2017	Examples			
44	**4/5**	6.10.2017	Synchronous Sequential circuit analysis	,,		
45	**5/5**	7.10.2017	Construction of state diagrams	,,		
46	**6/5**	9.10.2017	Examples	,,		
47	**7/5**	10.10.2017	counter design	,,		
48	**8/5**	11.10.2017	counter design examples	,,		
49	**9/5**	12.10.2017	counter design examples	,,		
50	**10/5**	13.10.2017	counter design examples	,,		

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Session wise – Course Plan

Department of Electronics and Communication

SEMESTER : III
BRANCH : ECE/TCE
SUBJECT : NA
SUBJECT CODE : 15EC34

NAME OF THE FACULTY : Mr. Rahul Tiwari
DATE OF COMMENCEMENT : 31.07.2017
DATE OF CLOSING : 25.11.2017
CLASS STRENGTH : 119(TCE-A &

E-C)

NO OF HRS/WK : 06

TOTAL HRS : 62

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	**1/1**		**Prerequisites:** Network basics, classifications and terminologies.	Board, chalk, duster		
2	**2/1**		**Prerequisites:** Basic laws, electrical elements, series parallel R, L, C combinations.	,,		
3	**3/1**		**Prerequisites:** Redundancy, KVL&KCL Short and open circuit concepts Ideal and practical sources.	,,		
4	**4/1**		**Prerequisites:** Series & Parallel connection (components & sources)	,,		
5	**5/1**		**Prerequisites:** Redundancy, KVL&KCL	,,	Assignment- I	
6	**6/1**		**Module-1:Basic concept** Ideal and practical sources.	Board, chalk, duster		
7	**7/1**		Source transformation, source shifting			
8	**8/1**		Voltage and current divider, Loop analysis	,,		
9	**9/1**		Loop and node analysis With linearly dependent ac and dc sources	,,		
10	**10/1**		Loop and node analysis With linearly independent sources	,,		
11	**11/1**		Concepts of super node and super mesh.	,,		
12	**12/1**		star-delta transformations	,,		
13	**13/1**		PROBLEM Discussion	,,		

14	**1/2**		**Module-2: Network Theorems** Superposition Theorem-Proof	Board, chalk, duster		
15	**2/2**		Problems on Superposition	,,	Assignment - II	
16	**3/2**		Reciprocity Theorem -proof	,,		
17	**4/2**		Reciprocity Theorem -Problems	,,		
18	**5/2**		Millman's theorem -Proof	,,		
19	**6/2**		Millman's theorem -Problems	,,		
20	**7/2**		Thevinin's Theorem -Proof	"		
21	**8/2**		Thevinin's Theorem -Problems	,,		
22	**9/2**		Norton's theorem -Proof	,,	Assignment –III	
23	**10/2**		Norton's theorem -Problems	,,		
24	**11/2**		Maximum Power transfer theorem	,,		
25	**12/2**		Maximum Power transfer theorem Problems.	,,		
26	**13/2**		Miller's Theorem			
27	**14/2**		Miscellaneous PROBLEM Discussion	,,		
28	**1/4**		**Module-4: Resonant Circuits** Series resonance	Board, chalk, duster		
29	**2/4**		Parallel Resonance	,,	Assignment –IV	
30	**3/4**		Frequency response of series resonance	,,		
31	**4/4**		Frequency response of Parallel resonance	,,		
32	**5/4**		Q-factor, Bandwidth	,,		
33	**6/4**		Problems on series resonance	,,		
34	**7/4**		Problems on Parallel resonance	,,		
35	**8/4**		Miscellaneous PROBLEM Discussion	,,		
36	**1/5**		**Module-5: Two port Network Parameter** z-parameters	Board, chalk, duster		
37	**2/5**		y -parameters	,,	Assignment -V	
38	**3/5**		h-parameters	,,		
39	**4/5**		Transmission Parameters	,,		
40	**5/5**		Relationship between parameters	,,		
41	**6/5**		Series & cascade connection of 2 port n/w	,,		
42	**7/5**		Problems	,,		
	8/5		Miscellaneous problems/Revision	,,		
43	**1/3**		**Module-3: Transient behavior and initial conditions:** Behavior of circuit elements under	Board, chalk, duster		

			switching condition and their Representation			
44	**2/3**		Evaluation of initial and final conditions in RL for AC excitations	,,		
45	**3/3**		Evaluation of initial and final conditions in RL circuits for DC excitations	,,	Assignment -VI	
46	**4/3**		evaluation of initial and final conditions in RC circuits for AC excitations	,,		
47	**5/3**		Evaluation of initial and final conditions in RC circuits for D C excitations	,,		
48	**6/3**		evaluation of initial and final conditions in RLC circuits for AC excitations	,,		
49	**7/3**		Evaluation of initial and final conditions in RLC circuits for DC excitations	,,		
50	**8/3**		Problems	,,		
51	**9/3**		**Laplace Transformation & Applications :** Solution of networks	,,		
52	**10/3**		Step responses	Board, chalk, duster	Assignment -VII	
53	**11/3**		Ramp responses	,,		
54	**12/3**		Impulse responses	,,		
55	**13/3**		waveform Synthesis	,,	Assignment - VII	
56	**14/3**		Problems on waveform synthesis	,,		
57	**15/3**		Laplace problems	,,		
58	**16/3**		Miscellaneous problems/Revision	,,		
59	**17/3**		Miscellaneous problems/Revision	,,		
60	--		Revision	,,		
61	--		Revision	,,		
62	--		Revision	,,		

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Session wise – Course Plan

Department of Electronics and communication

SEMESTER: III
SECTIONS: TCE
SUBJECT : ELECTRONIC INSTRUMENTATION
SUBJECT CODE: 15EC35
NO OF HRS/WK: 5

NAME OF THE FACULTY : Richa Tengshe
DATE OF COMMENCEMENT: 7.08.2017
DATE OF CLOSING : 16.11.2017
CLASS STRENGTH:
TOTAL HRS : 55

Session No	Chapter no (No of hrs planed for the chapter)	Date	Topics planned for the session	Teaching Aids	Assignments/ Tests/ seminars
1	**0/1**	7.08.2017	Introduction to Course, Briefing on assignments and IAT.		
2	**0/2**	8.08.2017	Measurement, Instrumentation, Units and Standards	Board, chalk, duster	
3	**1/1**	9.08.2017	Measurement of error, Classification, causes and how to reduce error.	,,	
4	**2/1**	11.08.2017	Accuracy, Precision, Resolution and Significant figures.	,,	
5	**3/1**	12.08.2017	Numerical	,,	Assignment 1
6	**4/1**	14.08.2017	Measurement Error Combinations and numerical	,,	
7	**5/1**	16.08.2017	Basics of Statistical Analysis	,,	
8	**6/1**	17.08.2017	Basic D'Arsonval meter, DC ammeter, Multi-range ammeter and Problems.	Board, chalk, duster	

9	**7/1**	19.08.2017	Universal Shunt/Ayrton Shunt	,,	
10	**8/1**	21.08.2017	Requirements of shunt ,Extending ammeter Range , RF ammeter	,,	
11	**9/1**	22.08.2017	Basic Meter as a DC Voltmeter, DC Voltmeter	,,	
12	**10/1**	23.08.2017	Multi-range Voltmeter, Extending Voltmeter Ranges, numerical		
13	**11/1**	24.08.2017	Loading, Numerical	,,	
14	**12/1**	29.08.2017	Transistor Voltmeter, AC Voltmeter using Rectifiers	,,	
15	**13/1**	30.08.2017	Differential Voltmeter, True RMS Voltmeter, Considerations in Choosing an Analog Voltmeter	,,	
16	**14/1**	31.08.2017	Analog Multimeter		
17	**1/2**	1.09.2017	Introduction, RAMP technique, Dual Slope Integrating Type DVM, Integrating Type DVM		
18	**2/2**	4.09.2017	Most Commonly used principles of ADC, Successive Approximations		
19	**3/2**	6.09.2017	Numerical	,,	
20	**4/2**	7.09.2017	Continuous Balance DVM, -Digit, Resolution and Sensitivity of Digital Meters, General Specifications of DVM	,,	Assignment 2
21	**5/2**	8.09.2017	Microprocessor based Ramp type DVM, Digital Multimeter	,,	
22	**6/2**	9.09.2017	Digital Frequency Meter , Digital Measurement of Time	,,	
23	**7/2**	11.09.2017	Universal Counter, Digital Tachometer	,,	
24	**8/2**	13.09.2017	Digital pH Meter, Digital Phase Meter		
25	**9/2**	14.09.2017	Digital Capacitance Meter, Microprocessor based Instruments		

26		15.09.2017	Revision	Quiz	Quiz
27	**1/3**	22.09.2017	**Oscilloscopes:** Introduction, Basic principles, CRT features, Block diagram of Oscilloscope	Board, chalk, duster,	
28	**2/3**	23.09.2017	Simple CRO, Vertical Amplifier	,,	
29	**3/3**	26.09.2017	Horizontal Deflecting System, Sweep or Time Base Generator	,,	
30	**4/3**	27.09.2017	Storage Oscilloscope, Digital Readout Oscilloscope	,,	Assignment 3
31	**5/3**	28.09.2017	Measurement of Frequency by Lissajous Method	,,	
32	**6/3**	3.10.2017	Digital Storage Oscilloscope	,,	
33	**7/3**	4.10.2017	**Signal Generators:** Introduction, Fixed and Variable AF Oscillator, Standard Signal Generator	,,	
34	**8/3**	7.10.2017	Laboratory Type Signal Generator	,,	
35	**9/3**	9.10.2017	AF sine and Square Wave Generator, Function Generator	Board, chalk, duster	
36	**10/3**	10.10.2017	Square and Pulse Generator, Sweep Generator	,,	
37	**1/4**	11.10.2017	**Bridges:** Introduction, Wheatstone's bridge,Numerical	,,	
38	**2/4**	12.10.2017	Kelvin's Bridge	,,	
39	**3/4**	14.10.2017	Numerical	,,	
40	**4/4**	16.10.2017	AC bridges, Capacitance Comparison Bridge, Inductance Comparison Bridge	,,	Assignment 4
41	**5/4**	17.10.2017	Numerical	,,	
42	**6/4**	23.10.2017	Maxwell's bridge, Wein's bridge	,,	
43	**7/4**	24.10.2017	Numerical		

44	**8/4**	26.10.2017	Wagner's earth connection	,,	
45	**9/4**	27.10.2017	**Measuring Instruments:** Output Power Meters, Field Strength Meter	,,	
46	**10/4**	28.10.2017	Stroboscope, Phase Meter, Vector Impedance Meter, Q Meter	,,	
47	**11/4**	30.10.2017	Megger, Analog pH Meter	,,	
48	**1/5**	31.10.2017	**Transducers:** Introduction, Electrical transducers, Selecting a transducer, Resistive transducer,	,,	
49	**2/5**	03.11.2017	Strain gauges, Resistive position transducer	,,	
50		04.11.2017	Revision		Test
51	**3/5**	09.11.2017	Resistance thermometer, Thermistor, Inductive transducer	Board, chalk, duster	
52	**4/5**	10.11.2017	Differential output transducers, LVDT, Piezoelectric transducer	Seminar	
53	**5/5**	13.11.2017	Photoelectric transducer, Photovoltaic transducer , Semiconductor photo diode and transistor	,,	
54	**6/5**	15.11.2017	Temperature transducers-RTD	,,	
55		16.11.2017	Revision		

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CMR INSTITUTE

OF TECHNOLOGY

Session wise – Course Plan

Department of Electronics and Communication

SEMESTER :III
NAME OF THE FACULTY : Sutapa Sarkar/ Suganya.J
BRANCH : TCE
SUBJECT : Engineering Electromagnetics
SUBJECT CODE : 15EC36
NO OF LECTURES/WK : 6
DATE OF COMMENCEMENT : 07.08.2017
DATE OF CLOSING : 16.11.2017
CLASS STRENGTH : 67
TOTAL HRS : 60

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1		07.08.2017	Prerequisites: Introduction to Vector Calculus	Board, chalk, duster		
2		08.08.2017	3D co-ordinate system(Cartesian)	,,		
3		09.08.2017	3D co-ordinate system(Cylindrical), 3D co-ordinate system(spherical)	,,		
4	**Module -1**	10.08.2017	Coulomb's Law and problems			
5		11.08.2017	Electric field intensity, problems			
6		12.08.2017	Problems on electric field intensity, field due to continuous volume charge distribution		Assignment- I	
7		14.08.2017	Field of a line charge(infinite)			

8		16.08.2017	field of a line charge(finite)			
9		17.08.2017	Field due to ring of charge and problems	,,		
10		18.08.2017	Surface charge and problems(disc charge)	,,		
11		19.08.2017	Electric flux density	,,		
12		21.08.2017	Revision	,,		
13	**Module - 3**	22.08.2017	Derivations of Poisson's and Laplace's Equations,	,,	Assignment -II	
14		23.08.2017	Uniqueness theorem,	,,		
15		24.08.2017	Capacitance of coaxial cylinder, angular variation of cylinder using Laplace's equation.	,,		
16		28.08.2017	Capacitance of sphere using Laplace's equation.	,,		
17		29.08.2017	Example of angular variation in spherical co-ordinates.			
18		30.08.2017	Problem practice.			
19		31.08.2017	Revision			
20		01.09.2017	Magnetic field intensity, Biot-Savart's law.	,,	Assignment –III	
21		04.09.2017	Magnetic field intensity for infinite line conductor.	,,		
22		05.09.2017	Magnetic field intensity for finite line conductor.	,,		
23		06.09.2017	Problem on Magnetic field intensity for finite conductor – ring conductor,	,,		
24		07.09.2017	Ampere's Circuital Law	,,		
25		08.09.2017	Ampere's Circuital Law for co-axial cable	,,		
26		09.09.2017	Infinite sheet of charge, solenoid			
27		11.09.2017	Curl problems, Point form of Ampere's Circuital Law.	,,		

28		12.09.2017	Stokes's theorem and problems	Board, chalk, duster		
29		13.09.2017	Stokes's theorem verification	,,		
30		14.09.2017	Stokes's theorem verification	,,		
31		15.09.2017	Revision	,,		
32		18.09.2017, 20.09.2017, 21.09.2017	IAT-1	,,		
33		22.09.2017	Magnetic flux and flux density, scalar and Vector magnetic potentials.	,,		
34	**Module-4**	23.09.2017	Force on a moving charge and related problems	,,	Assignment -IV	
35		25.09.2017	Differential current element, Force between differential current elements, problem	,,		
36		26.09.2017	Torque problem	Board, chalk, duster		
37		27.09.2017	Magnetic materials, Magnetization and permeability	,,		
38		28.09.2017	Magnetic boundary conditions	,,		
39		03.10.2017	Magnetic circuit, Potential energy and forces on magnetic materials,	,,		
40		04.10.2017	Revision	,,		
41	**Module-5**	06.10.2017	Faraday's law, point form of Faraday's law.	,,		
42		07.10.2017	Displacement current,	,,	Assignment -V	
43		09.10.2017	Modified form of Ampere's law.	,,		

44		10.10.2017	Maxwell's equation in point and Integral form,	,,		
45		11.10.2017	Problems	,,		
46		12.10.2017	Problems	,,		
47		13.10.2017	Wave propagation in free space	,,		
48		14.10.2017	Wave propagation in dielectrics	,,		
49		16.10.2017	Calculation of intrinsic impedance	,,		
50		17.10.2017	propagation in good conductors – (skin effect).	,,		
51		23.10.2017	Poynting's theorem and wave power,	,,		
52		24.10.2017	Problems			
53	**Module-2**	25.10.2017	Gauss's law, Gauss's divergence theorem.	Board, chalk, duster	Assignment -VI	
54		26.10.2017	Maxwell's First equation of electrostatics, Verification of Gauss's divergence theorem in Cartesian co-ordinates	,,		
55		27.10.2017	Verification of Gauss's divergence theorem in Cylindrical co-ordinates	,,		
56		28.10.2017	Verification of Gauss's divergence theorem in spherical co-ordinates	,,		
57		30.10.2017	Problem	,,		
58		31.10.2017	Work(Energy expended in moving a point charge) and Potential, The line integral	,,		
59		02.11.2017	Problems on work and potential	,,		
60		03.11.2017	Problem	,,		
		04.11.2017	Revision			
		06.11.2017, 07.11.2017,	IAT-2			

		08.11.2017				
		09.11.2017	Definition of potential difference and Potential,			
		10.11.2017	The potential field of a point charge and system of charges			
		13.11.2017	Potential gradient(Only problems)			
		14.11.2017	Current and current density, Continuity of current,			
		15.11.2017	relaxation time,			
		16.11.2017	Problem			
		17.11.2017, 18.11.2017, 20.11.2017	Improvement test			

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