

EEE - Online Class +1st Sept to 30 Nov2020				
Module	Topics[2Hr Each]	PPT	Video Links	E-Materials
18EE32	lec1: Active and passive device lec2: dependent and independent sources Lecture3: O.C & S.C test on transformers Lecture4: Numerical Problems, All day Efficiency Lecture5: Voltage Regulation. Three phase transformers construction, Advantages over single phase transformers and bank of single phase transformers Lecture6: Transformers connections. Lecture7: Transformers connections, continued... Lecture8: Phase conversion-Scott connection for three-phase to two-phase conversion. Lecture9: Labelling of three-phase transformer terminals, vector groups. Lecture10: Polarity Test, Sumpniers Test, Separation of Hysteresis and eddy current loss Lecture11: Parallel operation of transformers, Load sharing, Autotransformers Lecture 12: Onload and off load tap changers. Three-winding transformers. Cooling of transformers. Lecture 13: Armature windings, winding factors, e.m.f equation Lecture 14: Harmonics-causes, reduction and elimination. Armature reaction, Synchronous reactance, Equivalent circuit.	https://drive.google.com/drive/folders/1AM2X37TwBY-Mz54qAYz4NNFH2fUwb5M?usp=sharing	https://drive.google.com/file/d/1v1E1aON52T3rxGWjLtaiJxBVJk1SQJot1/view?usp=sharing	https://drive.google.com/file/d/1zuHDnRwDNA3Hg9tuZSz89TBX_wE2zBb5/view?usp=sharing
18EE33	Lecture1: Introduction to Single Phase Transformers Lecture2: Transformers on No Load and Load Phasor diagrams Lecture3: O.C & S.C test on transformers Lecture4: Numerical Problems, All day Efficiency Lecture5: Voltage Regulation. Three phase transformers construction, Advantages over single phase transformers and bank of single phase transformers Lecture6: Transformers connections. Lecture7: Transformers connections, continued... Lecture8: Phase conversion-Scott connection for three-phase to two-phase conversion. Lecture9: Labelling of three-phase transformer terminals, vector groups. Lecture10: Polarity Test, Sumpniers Test, Separation of Hysteresis and eddy current loss Lecture11: Parallel operation of transformers, Load sharing, Autotransformers Lecture 12: Onload and off load tap changers. Three-winding transformers. Cooling of transformers. Lecture 13: Armature windings, winding factors, e.m.f equation Lecture 14: Harmonics-causes, reduction and elimination. Armature reaction, Synchronous reactance, Equivalent circuit.			Google Classroom ID: e4hnmc
18EE34	Module - 1 Lecture 1: Diode Circuits Lecture 2: Positive and Negative Series Clipper Lecture 3: Clipping With reference voltage, Parallel Clippers Lecture 4: Problems on clippers, Two Way Clippers Lecture 5: Diode Clamper Circuits, Numerical Problems on Clampers Lecture 6: Transistor Biasing and Stabilization Lecture 7: Transistor Biasing and Stabilization Lecture 8: Transistor biasing and stability Lecture 9: Designing of various biasing circuit Lecture 10: Stability Factors for different biasing circuits, Transistor Switching Circuits Module 2 Lecture 1: Transistors at low frequency Lecture 2: h-parameter analysis for different configurations, Mid-band analysis of BJT Single stage amplifier Lecture 3: h-parameter Analysis for Voltage divider bias circuit, Conversion of h-parameters from one configuration to another, Problems Lecture 4: Analysis using simplified hybrid model Lecture 5: Analysis of CC amplifier using simplified h-model, Miller's theorem and its application to analyze C-B Bias Circuit Lecture 6: Application of Dual of Miller's Theorem	shorturl.at/cAHIQ	shorturl.at/swEL5	Google Classroom ID: c55f62c
18EE35	Lecture 1: Basics of Logic design Definition of Combinational Logic, Canonical Forms, Generation of switching equations Lecture 3: Karnaugh maps-3,4 variables Lecture 4: Use of K-maps for simplifying boolean expressions-Prime implicants and Essential prime implicants Lecture 5: Prime Implicants, Minimal Sum and Minimal Product Lecture 6: Incompletely specified function using K-Map Lecture 7: 5 variable K-map Lecture 8: Quine McClusky Minimization Technique Lecture 9: Quine McClusky Minimization Technique using Don't cares, MEV technique Module 2: Lecture 1: General approach for combinational logic Lecture 2: Decoders Lecture 3: Decoders Lecture 4: Encoders Lecture 5: Digital Multiplexers Lecture 6: Using MUX as Boolean function generators Lecture 7: Adders, Subtractors, Cascading full adder, Look ahead carry Adder	shorturl.at/puGN8	shorturl.at/qtDW3	
18EE36	Lecture 1: Basics of Electronic instruments, Advantages of electronic instruments. True rms reading voltmeter, Electronic multimeters Lecture 2: Digital voltmeters (DVM) - Ramp type DVM, Lecturer 3: integrating, successive approximation, Q meter Lecturer 4: Low, High impedance component measurement, numericals Lecturer 5: Electronic Energy meter, advantages Lecture 6: Revision Lecture 7: Module 5 - Introducion, character format, segment, dot matrix display , CRT	https://www.youtube.com/watch?v=07u27zhU4cg&t=2s	Google Classroom ID: k2iepb4	
	Lecture 8: Quiz Lecture 9 : LED, LCD, Nixie tube Lecture 10: incandescent, Fluorescent, LVD, recording device	https://www.youtube.com/watch?v=vnQ15i6_YNI	http://www.vtuupdates.in/wp-content/uploads/eee/3rd-sem/15ee35/m1.pdf	
	Lecture 11: strip chart recorder Lecture 12: circular, galvanometer recorder Lecture 13: Null recorder, X-Y recorder Lecture 14: Digital X - Y recorder, Ultraviolet recorder Lecture 15: ECG, Digital recorder Lecture 16: 3phase p.f meter, weston frequency meter, phase Unit test Lecture 17: measurement of power, errors Lecture 18 : Errors, LPF	https://www.youtube.com/watch?v=vnQ15i6_YNI	http://www.vtuupdates.in/wp-content/uploads/eee/3rd-sem/15ee36/m4.pdf	
18MAT31	1st December 2020 to 15 Jan 2021			
18EE32	Week1: Module3: Dec1 to 7 : Analysis of simple RLC series circuit, Analysis of simple RLC parallel circuit under resonance Week2: Module3: Dec8to 15: Numericals on resonant frequency band width and quality factor at resonance Week3: Module3: Dec16 to 23 : Transient analysis of RL and RC circuits under DC excitation week4: Module3: Dec24 to Jan 1: Behaviour of circuit elements under switching action, Evaluation of initial condition week5: Module4: Jan2to Jan9: LT of impulse , step, ramp sine and shifted week6: Modules5:Jan 10 to Jan 15: Analysis of 3 phase s/m, calculation of real & reactive power by direct application of mesh and nodal analysis, Two port network	https://drive.google.com/file/d/17N2Wf36lB0q32IkCaDihp9bSghLiRu_a/view?usp=sharing	https://youtu.be/TbsfauWicX0	https://drive.google.com/file/d/1ghFACvnc9CvZNhFDzEe3kPU05_7B_Q5/view?usp=sharing
18EE33	Week1: Module4: Dec1 to 7 Open circuit and short circuit characteristics , Assessment of reactance- short circuit ratio, synchronous reactance Week2: Module4: Dec 8 to 15 Alternator on load. Excitation control for constant terminal voltage. Voltage regulation Week3: Module4: Dec 16 to 23 Voltage regulation by EMF, MMF, ZPF methods, Power angle characteristic(salient and non salient pole), power angle diagram, reluctance power Week4: Module5: Dec 23 to Dec 30 Effects of saliency, two-reaction theory, V-curves Parallel operation of generators and load sharing. Week5: Module5: Jan 1 to Jan 8 Methods of Synchronisation, Synchronising power, Determination of Xd & Xq - slip test Week6: Module5: Jan 9 to Jan 16 Performance of synchronous generators Capability curve for large turbo generators and salient pole generators. Hunting and damper windings.	https://drive.google.com/file/d/14pUh3U83gSebFuAzePvYl5hnGrIwrUwI/view?usp=sharing	https://youtu.be/CxozfJuCcnk	https://drive.google.com/drive/folders/1CwYeh2vPhfjkFBZ7ORRBtfifVUiTe
18EE34	Module 3, 01-Cascade and cascade connections (Dec 1 to Dec 4) 02-Darlington circuits, analysis and design (Dec 5 to Dec 7) 03-Feedback Amplifiers Feedback concept (Dec 7 to Dec 11) 04-Feedback Amplifiers Feedback Types (Dec 11 to Dec 17) 05-Analysis and design of feedback circuits (Dec 20 to Dec 27) Module 04, 01-Power Amplifiers (Dec 27 to Jan 03) 02-Oscillators (Jan 04 to Jan 10) Module 05, 01-FETs (Jan11-Jan16)	https://drive.google.com/drive/folders/1Mtmc8fj7-6Gpcnf3wQbKJ4DyH6mV?usp=sharing	01- https://youtu.be/1iixB2Mv3-w02-https://youtu.be/JBi7TeJ3jo03-https://youtu.be/AdsXX7ylHt04-https://youtu.be/0nxEukFBd8A05-https://youtu.be/0nxEukFBd8A	
18EE35	Week1:Module3:Dec 1 to 7:Bistable elements,Latches,Timing consideration,master slave SR Flipflop Week2:Module 3:Dec 8 to 15:Pulse triggered master slave JK flipflop,Edge triggered flipflop,Characteristic equation. Week3:Module 4:Dec 16 to 23:Registers,binary ripple counters,synchronous binary counters,counters based on shift register Week 4:Module 4:Dec 23 to Dec 30:Design of synchronous counter, Design of synchronous mod-n Counter using Clocked TJK,D and SR Week 5:Module 5:Jan 1 to Jan 8:Mealy and Moore models,state machine notation,synchronous sequential notation. Week 6:Module 5:Jan 9 to Jan 16:Construction of state diagram,counter design,Memories.	https://drive.google.com/file/d/15E8Qn44ivxtbGqqtuPFQj2JwZA9odQ7v/view?usp=sharing	https://www.youtube.com/watch?v=4CRPlaBnfV0	https://drive.google.com/file/d/1LdqC3MnSDlc6yVYibTP1-if-efAq/view?usp=sharing
18EE36	Week1: Module 2 : Dec 1 to 7 - Measurement of real and reactive power in three phase circuits Week2: Module 2 : Dec 8 to 14 - Construction and working of energy meter Week3: Module 1 : Dec15 to 21 - measurement of low resistances, medium resistances Week 4 : Module1: dec 21 to 28 - measurement of a.c bridges Week 5 : Module 1: Dec 29 to Jan 4 - Measurement of ac bridges Week 6: Module 3:Jan 5 to 11 - instrument transformers	https://drive.google.com/file/d/1h1NcPWB0Ekz462YhbGGG02Wly3peD/view?usp=sharing	https://www.youtube.com/watch?v=QQrMy2wlwHY	https://drive.google.com/file/d/1LHStSuKb3Vm0n3BTf1DyFeSRf/view?usp=sharing
		https://drive.google.com/file/d/1Y1s_v91w2b0raGb2ZVxqLpqC2ylpkHvE/view?usp=sharing	https://nptel.ac.in/courses/108/105/08105153/	http://www.vtuupdates.in/wp-content/uploads/eee/3rd-sem/15ee36/m2.pdf
		https://drive.google.com/file/d/1dX3qrxFgwrrlUp3v6CXVer3dg-oVE5/view?usp=sharing	https://www.youtube.com/watch?v=rQPemWEWNyg	http://www.vtuupdates.in/wp-content/uploads/eee/3rd-sem/15ee36/m1.pdf
		https://drive.google.com/file/d/1jiKA0MsSRaNy5PcfJ-28PMOEarQcq0/view?usp=sharing	https://www.youtube.com/watch?v=l5k66ESHJM	http://www.vtuupdates.in/wp-content/uploads/eee/3rd-sem/15ee36/m1.pdf
		https://drive.google.com/file/d/1rFaeloVikxkh2p2QMhuXX2wElpCtMRp/view?usp=sharing	https://www.youtube.com/watch?v=WkfijmsDW0	http://www.vtuupdates.in/wp-content/uploads/eee/3rd-sem/15ee36/m3.pdf