Government College Of Engineering
Tirunelveli, Tamil Nadu, 627007 India

Department of Electrical and Electronics Engineering

Name of the teacher: M. Balasubramanian, Assistant Professor/EEE

Subject Code & Name: EE8010- Power System Transients

Semester: 07 **Year: IV** **Department: EEE**

S.No	Unit	Title	Link for Video presentation	QR Code
1	INTRODUCTION AND SURVEY	Review and importance of the study of Transients	https://youtu.be/0KXqG0bCMVE	
2	INTRODUCTION AND SURVEY	Causes / Sources of transients (or) Surges	https://youtu.be/BQGgLhvyl5w	
3	INTRODUCTION AND SURVEY	Types of Power System Transients	https://youtu.be/qeMk8_qzImY	
4	INTRODUCTION AND SURVEY	RL circuit Transient with Sine wave excitation	https://youtu.be/K1AAdZJYpzQ	
5	INTRODUCTION AND SURVEY	Double Frequency Transients	https://youtu.be/wwOBQDGIH6k	
6	SWITCHING TRANSIENTS	Resistance switching and the equivalent circuit for interrupting the resistor current	https://youtu.be/rv8GPkSIfkQ	
7	SWITCHING TRANSIENTS	Load Switching and equivalent circuit - waveforms for transient voltage across the load and the switch, Over voltages due	https://youtu.be/5h0sxH4OOME	

		to switching transients		
8	SWITCHING TRANSIENTS	Current chopping - Current suppression - effective equivalent circuit	https://youtu.be/nxRW73RwQM4	
9	SWITCHING TRANSIENTS	Capacitance Switching - effect of source regulation - capacitance switching with a restrike, with multiple restrikes. Illustration for multiple restriking transients	https://youtu.be/xoXJ6fY3lXM	
10	SWITCHING TRANSIENTS	Ferroresonance	https://youtu.be/CPDjm233lkA	
11	Mechanisms of Charge Formation	Charge Formation of clouds	https://youtu.be/V5Q4mH_j_V8	
12	Mechanisms of Charge Formation	Mechanisms of Lightning Strokes	https://youtu.be/ipP9N9zgjvg	
13	Mechanisms of Charge Formation	Parameters and Characteristic of the Lightning Strokes	https://youtu.be/2hIlitU8LM4	
14	Mechanisms of Charge Formation	Protection against Lightning overvoltage and Switching Surge	https://youtu.be/3vqp3Qnc7jg	

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15	Mechanisms of Charge Formation	Rate of charging of Thunder Clouds and Mode of Lighting	https://youtu.be/-trcaQ6HFz0	
16	Transient Response of the system	Transient Response of the system with Series and shunt Lumped Parameters And Distributed Lines	https://youtu.be/ytZ7-TZVWqE	
17	Transient Response of the system	Reflection And Refraction Of Travelling Waves	https://youtu.be/ruCM_j8RRBg	
18	Transient Response of the system	BEWLEY'S LATTICE DIAGRAM - 1	https://youtu.be/H2BkZPHjqpw	
19	Power System Transients	Short Line (or) Kilometric Fault	https://youtu.be/RiFCWrUKdYg	
20	Power System Transients	Line dropping and Load Rejection	https://youtu.be/Lmu-JaudhT4	
21	Power System Transients	Over voltage induced by Fault & voltage Transient on closing and reclosing of Lines	https://youtu.be/iiq3TQCemZg	
22	Power System Transients	Electromagnetic Transient Program -EMTP	https://youtu.be/kKlwHIkECJk	
23	Power System Transients	Switching surges on integrated system	https://youtu.be/J5RxAZsW4Ss	

Name of the teacher: Dr. A. Thangaraj, Assistant Professor/EEE,

Subject Code & Name: EE8391-Electromagnetic Theory

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Semester: 03 **Year: II** **Department: EEE**

Sl.No.	Topics	Link for Video presentation	QR Code
		UNIT-I ELECTROSTATICS-I	
1.1	Sources of emf-Vector algebra	https://www.youtube.com/watch?v=K1khCdO7SFM&t=37s	
1.2	Coordinate Systems	https://www.youtube.com/watch?v=C6W42dmoh0A	
1.3	Gradient, Divergence and curl of a vector-Gauss Divergevce theorem-Stoke's theorem	https://www.youtube.com/watch?v=2T7m-f4gL4s	
1.4	Coulomb's Law-Electric field intensuty-Electric field due to Continuous Charge distributions	https://www.youtube.com/watch?v=oCI7CGJDst8	
1.5	Gauss's Law and its Applications	https://www.youtube.com/watch?v=9DYCBs8h_8w	
		UNIT-II ELECTROSTATICS-II	
2.1	Electric Potential	https://www.youtube.com/watch?v=3gJEd63uWq8	
2.2	Electric Field and Equipotential Plots	https://www.youtube.com/watch?v=PoL2nxktyi0	

2.3	Electrostatic Energy Density	https://www.youtube.com/watch?v=hZ62_auegCA	
2.4	Properties of materials-Conductors	https://www.youtube.com/watch?v=TzzAvp9Lt0U	
2.5	Dielectric Polarization-Dielectric Strength	https://www.youtube.com/watch?v=8ezZmDYm5XM	
2.6	Electrostatic Boundary Conditions	https://www.youtube.com/watch?v=5B6Y61CBZLg	
2.7	Poisson's and Laplace Equations-Capacitance	https://www.youtube.com/watch?v=98rCG6bWNBo	
		UNIT-III MAGNETOSTATICS	
3.1	Magnetostatics-Introduction	https://www.youtube.com/watch?v=fbj_IG7gAmw	
3.2	Biot-Savart's Law	https://www.youtube.com/watch?v=MMsoH8_8yUg	
3.3	Ampere's Circuit Law-Magnetic field due to infinite line currentand nfinte sheet of current	https://www.youtube.com/watch?v=1JP98_ADmiw	
3.4	Magnetic Flux Density-Magnetic Scalar and Vector Potentials	https://www.youtube.com/watch?v=iwphXIbKBDw	

3.5	lLorentz's Force Equation	https://www.youtube.com/watch?v=3ROR07oQkmw	
3.6	Magnetic Torque and Moment-Magnetic dipole	https://www.youtube.com/watch?v=iPwe68SjnPg	
3.7	Magnetization-Classification of Magnetic Materials	https://www.youtube.com/watch?v=zZmUyb9sGz8	
3.8	Magnetic Boundary Conditions	https://www.youtube.com/watch?v=JPjT5cPm5gA	
3.9	Inductance-Magnetic Energy-Magnetic Energy density	https://www.youtube.com/watch?v=IBonrxl6kwg	
		UNIT-IV ELECTRODYNAMIC FIELDS	
4.1	Faraday's Law	https://www.youtube.com/watch?v=HW6sB2qZQJQ	
4.2	Transformer and Motional Emf	https://www.youtube.com/watch?v=ivJr7zn9YrM	
4.3	Displacement current	https://www.youtube.com/watch?v=ozaJaqMhiGg	
4.4	Maxwell's Equations	https://www.youtube.com/watch?v=6_iBltuKX84	

4.5	Relation between Circuit theory and Field theory	https://www.youtube.com/watch?v=hPxIRL4zs7A	
		UNIT-V ELECTROMAGNETIC WAVES	
5.1	Electromagnetic Wave Equtions-Wave Parameters: Velocity, Intrinsic Impedance, Propagation Constant	https://www.youtube.com/watch?v=uMiNOq-F_fM	
5.2	Wave Propagation in lossy dielectrics	https://www.youtube.com/watch?v=nFQPXKalvhg	
5.3	Wave Propagation in lossless dielectrics, free space and good conductors-Skin depth	https://www.youtube.com/watch?v=cyWPpSQ-03k	
5.4	Poynting;s Vector and Poynting's Theorem	https://www.youtube.com/watch?v=CpIVpMNnA2I	
5.5	Plane wave Reflection	https://www.youtube.com/watch?v=0wdS3tU3QBY	

Name of the teacher: k. Thanga Ranjitham, Temporary Assistant Professor /EEE,

Subject Code & Name: OMD551- Basics of Biomedical Instrumentations

Semester: 05 **Year: III** **Department: EEE**

S. No.	Topics	Link for Video Presentation	QR Code
UNIT I BIOPOTENTIAL GENERATION AND ELECTRODES TYPES			

1	Introduction to Bio potential, Sources of Bio potential	https://www.youtube.com/watch?v=XAGmVF1aaKI&t=329s	
2	Types of Electrodes, Surface Electrode	https://www.youtube.com/watch?v=dfvqODcp0Yg	
1.3	Needle Electrode and measurement of Bio potential using two Electrodes	https://www.youtube.com/watch?v=NfJWqwtkxtU&t=24s	
UNIT II-BIOSIGNAL CHARACTERISTICS AND ELECTRODE CONFIGURATIONS			
4	Bio signal characteristics and ECG measurement	https://www.youtube.com/watch?v=GnRt8mnwyoE	
5	EEG 10-20 Electrode system	https://www.youtube.com/watch?v=12YkvTy2q8k	
6	EMG – Unipolar and Bipolar mode	https://www.youtube.com/watch?v=W28B9T9K_JA	
UNIT-III SIGNAL CONDITIONING CIRCUITS			
7	Need for bio amplifier and Differential Bio amplifier	https://www.youtube.com/watch?v=vQZHenc0ENs	
8	Impedance Matching circuit and Isolation Amplifier	https://www.youtube.com/watch?v=stq1eOViL98	

9	Power line Interference, Right leg driven ECG Amplifier	https://www.youtube.com/watch?v=fZHHBqpmb5Q&t=64s	
10	Band pass Filtering	https://www.youtube.com/watch?v=rEIA2W32XCM	
UNIT-IV MEASUREMENT OF NON ELECTRICAL PARAMETERS			
11	Measurement of Temperature and Respiration rate	https://www.youtube.com/watch?v=YQrf_0-w2n8&t=65s	
12	Measurement of pulse rate and Blood pressure	https://www.youtube.com/watch?v=6Nh2UUxUCrs	
13	Measurement of Blood flow	https://www.youtube.com/watch?v=7Ay2rFDZBX8	
14	Cardiac Output Measurement	https://www.youtube.com/watch?v=9yhwisX68so	
UNIT-V BIO – CHEMICAL MEASUREMENT			
15	Blood gas analyzers, Colorimeter	https://www.youtube.com/watch?v=o4GmQ4EyrvI&t=31s	
16	Sodium Potassium Analyzer, Spectrophotometer	https://www.youtube.com/watch?v=wJEG0JS49jM	
17	Blood cell counter, Auto analyzer	https://www.youtube.com/watch?v=xTE4QvyGvbY	