

		E Online Class 1st Sept to 30 Nov 20		
Module	Topics[2Hr Each]	PPT	Video Links	E-Materials
17EE71	Lecture 1: Power System security, its function, system states block	<a href="https://drive.google.com/file/d/1n00a4L2qFJqZMSLPZnqtWSp46jMWMoj/view?usp=sharing">https://drive.google.com/file/d/1n00a4L2qFJqZMSLPZnqtWSp46jMWMoj/view?usp=sharing</a>	<a href="https://drive.google.com/file/d/1UmkhOY">https://drive.google.com/file/d/1UmkhOY</a>	
	Lecture2 : System Reliability, Short circuit studies			<a href="https://drive.google.com/file/d/1ACK4cB3scchKVP9FnD-BGxH6FMvNKQ0_/view?usp=sharing">https://drive.google.com/file/d/1ACK4cB3scchKVP9FnD-BGxH6FMvNKQ0_/view?usp=sharing</a>
	Lecture 3: Swing Equation, Eulers method		<a href="https://drive.google.com/file/d/1qkRw1Nj">https://drive.google.com/file/d/1qkRw1Nj</a>	<a href="https://drive.google.com/file/d/1YN7MFQ1PrI5ap8lv4O6UTSqQiTISz4/vi?usp=sharing">https://drive.google.com/file/d/1YN7MFQ1PrI5ap8lv4O6UTSqQiTISz4/vi?usp=sharing</a>
	lecture 4: R. K method, Milne's predictor method			
	lecture 5: point by point method, introduction to zbus matrix			
	Lecture 6 : formation of Zbus matrix by addition of branch			<a href="https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MTc5NTAyMjcxMzQ4/details">https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MTc5NTAyMjcxMzQ4/details</a>
	Lecture 7 : formation of Zbus matrix by addition of link			
	Lecture 8 : formation of Zbus matrix - numericals			
	Lecture 9: Multimachine Stability	<a href="https://drive.google.com/file/d/1GsveYv">https://drive.google.com/file/d/1GsveYv</a>		
	Lecture 10: Tree, co tree, oriented graph			
	Lecture 11: primitive Network			<a href="https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MjE3NTk3MjY0NjIz/details">https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MjE3NTk3MjY0NjIz/details</a>
	Lecture 12: Ybus formation by Singular Transformation			<a href="https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MjE3NTk3MjY0NjIz/details">https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MjE3NTk3MjY0NjIz/details</a>
	Lecture 13: Network model formulation			<a href="https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MTY1MjY4NTIzMTJz/details">https://classroom.google.com/c/MTQ4OTAwNTQ4MDkw/p/MTY1MjY4NTIzMTJz/details</a>
Lecture 14: Load flow studies	<a href="https://drive.google.com/file/d/1naHF4iJhsUomxQM2EkCMzefleg3dyMO/view?usp=sharing">https://drive.google.com/file/d/1naHF4iJhsUomxQM2EkCMzefleg3dyMO/view?usp=sharing</a>			
Lecture 15: Classification of buses				
Lecture 16: Gauss Seidel method				
17EE72	<b>Module 1</b> :Lecturer1: Introduction, need for protective sytems, Nature & cause of fault,types of fault, effects of faults, faults statistics			Google Classroom ID: e75u2nf
	Lecturer 2: Zones of protection,primary & back up protection, essential qualities, classification	<a href="https://drive.google.com/file/d/12H3BNUcGkDIXUgS2hIBThdOBaZRyV40K/view?usp=sharing">https://drive.google.com/file/d/12H3BNUcGkDIXUgS2hIBThdOBaZRyV40K/view?usp=sharing</a>		<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m1.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m1.pdf</a>
	Lecturer 3: Automatic reclosing, CT & PT for protection			
	Lecturer 4 : Construction & operating principle of relay	<a href="https://drive.google.com/file/d/1l6vPQd3u0lnKbVii9cpUz1ekc76RXkAF/view?usp=sharing">https://drive.google.com/file/d/1l6vPQd3u0lnKbVii9cpUz1ekc76RXkAF/view?usp=sharing</a>	<a href="https://drive.google.com/file/d/1v_t8ytwvQ6Xt4cCo8xXLEtHG0Gj-U0Fw/view?usp=sharing">https://drive.google.com/file/d/1v_t8ytwvQ6Xt4cCo8xXLEtHG0Gj-U0Fw/view?usp=sharing</a>	
	Lecturer 5 : attracted, induction, printed disc relay			
	Lecturer 6: Induction cup relay, Moving type relay			
	Lecture 7: static , Numerical relay, difference between electromechanical & numerical relay			
	Lecture 8 : Overcurrent protection, time - cuurent characteristics, current setting, time setting	<a href="https://drive.google.com/file/d/1Oph-tuQtflo8rF5t8dWtzp-DypuuWtLA/view?usp=sharing">https://drive.google.com/file/d/1Oph-tuQtflo8rF5t8dWtzp-DypuuWtLA/view?usp=sharing</a>		
	Lecture 9 : Numericals on PSM, TSM			
<b>Module 2</b> : Lecture 10: directional relay, directional overcurrent relay, protection for parallel, ring main feeder			<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m2.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m2.pdf</a>	
Lecture 11: Earth fault & phase fault protection, earth fault relay & overcurrent relay, earth fault protective schemes, combined earth fault & phase fault protective scheme, directional overcurrent relay, static over current relay	<a href="https://drive.google.com/file/d/18nl4NkDp-ZSwg2BrzShr4oXqj61mj58t/view?usp=sharing">https://drive.google.com/file/d/18nl4NkDp-ZSwg2BrzShr4oXqj61mj58t/view?usp=sharing</a>			
Lecture 12: Static over current realy, Numerical overcurrent relay				

	Lecture 13 : Distance protection, impedance relay	<a href="https://drive.google.com/file/d/1q_vrzTsj08HGjoxARvfEzrFJg4DGf8a/view?usp=sharing">https://drive.google.com/file/d/1q_vrzTsj08HGjoxARvfEzrFJg4DGf8a/view?usp=sharing</a>		
	Lecture 14 : Reactance , Mho relay			
	Lecture 15: offset mho relay, effect of arc resistance			
	Lecture 16: effect of power surge, power swing analysis, effect of source & line impedance			
	Lecture 17 : <b>Module 3</b> - wire pilot protection	<a href="https://drive.google.com/file/d/1v5zHXidxs-OL_KwN02dJQTolzlG1it9V/view?usp=sharing">https://drive.google.com/file/d/1v5zHXidxs-OL_KwN02dJQTolzlG1it9V/view?usp=sharing</a>		
	Lecture 18: carrier current protection			
	Lecture 19: differential protection			
17EE73	"LECTURE 1: Conduction and Breakdown in Gases: Gases as Insulating Media, Collision P	<a href="https://drive.google.com/file/d/1Bv3ne">https://drive.google.com/file/d/1Bv3ne</a>	<a href="https://www.youtube.com/watch?v=flxo4H">https://www.youtube.com/watch?v=flxo4H</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-semester/15ee73/m3.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-semester/15ee73/m3.pdf</a>
17EE742	<p><b>Module - 1</b>  Lecture - 01 Introduction to Electric Heating  Lecture - 02 Advantages and methods of electric of heating  Lecture - 03 Resistance furnaces, Temperature control of Resistance furnace, Numerical Problems  Lecture - 04 Arc Furnace, Induction Heating and Eddy Current Heating  Lecture - 05 Dielectric heating, Infrared Heating  Lecture - 06 Electric Welding  Lecture - 07 Resistance Welding  Lecture - 08 Arc Welding, Electron beam welding, LASER beam welding.  Lecture - 09 Electrolytic Electro-metallurgical Process</p> <p><b>Module - 2</b>  Lecture - 01 Illumination, Introduction, Important definitions, Laws of Illumination  Lecture - 02 Numericals on Illumination, Various Illumination Methods  Lecture - 03 Fluorescent lamps, Design of Lighting Schemes  Lecture - 04 Street Lighting, Basic principles of light control, Problems on Illumination  Lecture - 05 Polar Curves, Photometry, Integrating Sphere for Measuring Spherical Candle Power</p>	<a href="http://shorturl.at/eFGI3">shorturl.at/eFGI3</a>	<a href="http://shorturl.at/nMPT">shorturl.at/nMPT</a>	Google Classroom ID: m7mcbeu
17EE752 MODULE - 1	LECTURE 1 : Electrical Tools, accessories: Tools, Accessories and Instruments required for Installation, Maintenance and Repair Work. LECTURE 2 : India Electricity Rules, Safety Codes Causes and Prevention of Accidents, Artificial Respiration, Workmen's Safety Devices. LECTURE 3 :Transformers: Installation, Location Site Selection, Foundation Details, Terminal Plates, Polarity and Phase Sequence, Oil Tanks, Inspection. Volts Ratio Earth Temperature Rise Efficiencies, Regulation Etc., Conditions.	<a href="https://shorturl.at/bfrD6">shorturl.at/bfrD6</a>	<a href="https://shorturl.at/ptyV7">shorturl.at/ptyV7</a>	

17EE752 MODULE - 2	Physical Inspection,	<a href="https://drive.google.com/drive/Sca0qdfE1VzDh8hblvZUvafLr">https://drive.google.com/drive/Sca0qdfE1VzDh8hblvZUvafLr</a>	<a href="https://drive.google.com/drive/Sca0qdfE1VzDh8hblvZUvafLr">https://drive.google.com/drive/Sca0qdfE1VzDh8hblvZUvafLr</a>	<a href="https://drive.google.com/drive/Sca0qdfE1VzDh8hblvZUvafLr">https://drive.google.com/drive/Sca0qdfE1VzDh8hblvZUvafLr</a>
	Control Gear, Drying Out,			
	and Field Windings,			
	Capacitance.			
	LECTURE 5 : Slip Test, Maximum Lagging Current,			
	Transient Sub Transient Parameters,			
	Separation Of Losses,			
Length, Magnetic Eccentricity,				
LECTURE 9: Balancing Vibrations, Bearing Performance.				

1st December 2020 to 15 Jan 2021

17EE71	<p>Week 1: (Dec1 - Dec7):</p> <p>Week 2: (Dec8-Dec 14)</p> <p>Week 3: (Dec 14-Dec 19)</p> <p>Week 4: (Dec 21- 26)</p> <p>Week 5: Dec 27- Jan 5)</p> <p>Week 6: ( Jan 6- Jan 15)</p>	<p><a href="https://www.youtube.com/watch?v=MQTt2juuDuvqHDF_DSkiYH3ZzZvi">vfYWZx1F6ix36J1Z1sbj5bJeuJ/view</a></p> <p><a href="https://www.youtube.com/watch?v=MQTt2juuDuvqHDF_DSkiYH3ZzZvi">MQTt2juuDuvqHDF_DSkiYH3ZzZvi</a></p> <p><a href="https://www.youtube.com/watch?v=4VPd5eJ-VPDMONUC2mq_Bim_xG1/view?usp=sharing">4VPd5eJ-VPDMONUC2mq_Bim_xG1/view?usp=sharing</a></p> <p><a href="https://www.youtube.com/watch?v=h6Pwev5orcRGEaRYPDtCK5xXin">h6Pwev5orcRGEaRYPDtCK5xXin</a></p> <p><a href="https://www.youtube.com/watch?v=hfpoKHaAYnaTCI6oQJvJMrAprTRh/">hfpoKHaAYnaTCI6oQJvJMrAprTRh/</a></p>	<p><a href="https://nptel.ac.in/content/storage2/117/7/load-flow-studies-19">https://nptel.ac.in/content/storage2/117/7/load-flow-studies-19</a></p> <p><a href="https://www.youtube.com/watch?v=dtahir1/apsa-lec-9">dtahir1/apsa-lec-9</a></p> <p><a href="https://www.youtube.com/watch?v=E8w3ihMf-330inn1eYI-">https://www.youtube.com/watch?v=E8w3ihMf-330inn1eYI-</a></p> <p><a href="https://www.slideshare.net/bajaram">https://www.slideshare.net/bajaram</a></p> <p><a href="https://www.youtube.com/watch?v=Das3/economic-operation-of-power-https://www.academia.edu/9480752/ECONOMIC_OPERATION_OF_POWE">Das3/economic-operation-of-power-https://www.academia.edu/9480752/ECONOMIC_OPERATION_OF_POWE</a></p>
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17EE72	<p>Week 1 -Module 3 - Dec 1- 5 : Rotating machines protection - protection of generators</p>	<p><a href="https://www2.slideshare.net/ruddra/generator-protection-by-er-rahul-sharma?tid=17a8e6d0-3fad-4c55-87c8-f1bdf9e42b61&amp;v=&amp;b=&amp;from_search=34">https://www2.slideshare.net/ruddra/generator-protection-by-er-rahul-sharma?tid=17a8e6d0-3fad-4c55-87c8-f1bdf9e42b61&amp;v=&amp;b=&amp;from_search=34</a></p>	<p><a href="https://www.youtube.com/watch?v=ZxYq-xxRLnQ">https://www.youtube.com/watch?v=ZxYq-xxRLnQ</a></p>	<p><a href="https://www.eeeguide.com/differential-pilot-wire-protection/">https://www.eeeguide.com/differential-pilot-wire-protection/</a></p>
	<p>week2 - Module 3 - Dec 7-12 : Transformer and Buszone protection - Transformer protection, buszone protection, frame leakage protetcion</p>	<p><a href="https://www2.slideshare.net/ruddra/er-rahul-sharma-circuit-breaker?tid=84e1bf6e-088b-4b65-88f0-119f0f1de04b&amp;v=&amp;b=&amp;from_search=1">amaya/transformer-protection-124125583?tid=4a999bd0-e608-4ae6-9e47-119f0f1de04b&amp;v=&amp;b=&amp;from_search=1</a></p>	<p><a href="https://www.youtube.com/watch?v=oC5VmlGxsGA">https://www.youtube.com/watch?v=oC5VmlGxsGA</a></p> <p><a href="https://www.youtube.com/watch?v=utAqMJrG7vM">https://www.youtube.com/watch?v=utAqMJrG7vM</a></p>	<p><a href="https://www.eeeguide.com/different">https://www.eeeguide.com/different</a></p>
	<p>Week 3 - Module 4 - Dec 14-19 - Circuit breakers - Fault clearing, Arc volatgae, arc interruption, restiking voltage , recovery voltage, current chopping, interruption of capacitive current</p>	<p><a href="https://www2.slideshare.net/ruddra/er-rahul-sharma-circuit-breaker?tid=84e1bf6e-088b-4b65-88f0-119f0f1de04b&amp;v=&amp;b=&amp;from_search=1">https://www2.slideshare.net/ruddra/er-rahul-sharma-circuit-breaker?tid=84e1bf6e-088b-4b65-88f0-119f0f1de04b&amp;v=&amp;b=&amp;from_search=1</a></p>	<p><a href="https://www.youtube.com/watch?v=K0xnOVx82sUj">https://www.youtube.com/watch?v=K0xnOVx82sUj</a></p>	<p><a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m5.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m5.pdf</a></p>
	<p>Week 4 - Module 4 - Dec 21-26- Classifictaion of circuit breaker - air break, oil circuit, air blast, SF6, Vaccum, High voltage DC circuit breaker</p>	<p><a href="https://www2.slideshare.net/ruddra/er-rahul-sharma-circuit-breaker?tid=84e1bf6e-088b-4b65-88f0-119f0f1de04b&amp;v=&amp;b=&amp;from_search=1">https://www2.slideshare.net/ruddra/er-rahul-sharma-circuit-breaker?tid=84e1bf6e-088b-4b65-88f0-119f0f1de04b&amp;v=&amp;b=&amp;from_search=1</a></p>	<p><a href="https://www.youtube.com/watch?v=JRv2RVyYMitM">https://www.youtube.com/watch?v=JRv2RVyYMitM</a></p>	<p><a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m5.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee72/m5.pdf</a></p>
	<p>Week 5 -Module 5 - Dec - 28- Jan 2 Fuse - Definition, characteristics of fuse, application, selection of fuse</p>	<p><a href="https://www2.slideshare.net/miteshtnauhan60/4-fuses">https://www2.slideshare.net/miteshtnauhan60/4-fuses</a></p>	<p><a href="https://www.youtube.com/watch?v=Zx27WM20vhw&amp;list=PLLy_2iUCG87BJI">https://www.youtube.com/watch?v=Zx27WM20vhw&amp;list=PLLy_2iUCG87BJI</a></p>	<p><a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-">http://www.vtuupdates.in/wp-content/uploads/eee/7th-</a></p>
	<p>Module 6 - Electric Traction (Dec 1-10) Electric Traction Speed - Time Curves and Mechanics of Train Movement: Introduction, Systems of Traction, Systems of electric Traction, Speed - Time Curves for Train Movement, Mechanics of Train Movement, Train Resistance, Adhesive Weight, Coefficient of Adhesion. Motors for Electric traction: Introduction, Series and Shunt Motors for Traction Services, Two Similar Motors (Series Type) are used to drive a Motor Car, Tractive Effort and Horse Power, AC Series Motor, Three Phase Induction Motor. Control of motors: Control of DC Motors, Tapped Field Control or Control by Field Weakening, Multiple Unit Control, Control of Single Phase Motors, Control of Three</p>	<p><a href="https://www.slideshare.net/zunaibali/lec-traction-2">https://www.slideshare.net/zunaibali/lec-traction-2</a></p>	<p><a href="https://www.youtube.com/watch?v=8HSr3lcQYuk">https://www.youtube.com/watch?v=8HSr3lcQYuk</a></p>	<p><a href="https://drive.google.com/drive/folders/1wpp15JgAtKt4VkJFaPOXC2LLB0vAGpEEU?usp=sharing">https://drive.google.com/drive/folders/1wpp15JgAtKt4VkJFaPOXC2LLB0vAGpEEU?usp=sharing</a></p>



17EE73/modul Week 1: (Dec 1 - Dec 7):National Causes for Overvoltages - Lightning Phenomenon	<a href="https://slideplayer.com/slide/4881706/">https://slideplayer.com/slide/4881706/</a>	<a href="https://www.youtube.com/watch?v=JlbfKLf0Ywc">https://www.youtube.com/watch?v=JlbfKLf0Ywc</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m3.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m3.pdf</a>
15EE73/modul Week 2: (Dec8-Dec 14)National Causes for Overvoltages - Lightning Phenomenon	<a href="https://slideplayer.com/slide/4881706/">https://slideplayer.com/slide/4881706/</a>	<a href="https://www.youtube.com/watch?v=8v2ERAYZADY">https://www.youtube.com/watch?v=8v2ERAYZADY</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m3.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m3.pdf</a>
15EE73/modul Week 3: (Dec 14-Dec 19)Overvoltage due to Switching Surges, System Faults	<a href="https://slideplayer.com/slide/4881706/">https://slideplayer.com/slide/4881706/</a>	<a href="https://www.youtube.com/watch?v=qa8moSqeO34">https://www.youtube.com/watch?v=qa8moSqeO34</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m4.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m4.pdf</a>
Week 4: (Dec 21- 26)Other Abnormal, Principles of Insulation Coordination on High Voltage and Extra High Voltage Power Systems.	<a href="https://www.bharathuniv.ac.in/college/s1/downloads/courseware_eee/Notes/CE1/BEE013%20HVE%20NOTES.pdf">https://www.bharathuniv.ac.in/college/s1/downloads/courseware_eee/Notes/CE1/BEE013%20HVE%20NOTES.pdf</a>	<a href="https://www.youtube.com/watch?v=cA6xbI4JGLA">https://www.youtube.com/watch?v=cA6xbI4JGLA</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m4.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m4.pdf</a>
15EE73/modul Week 5: Dec 27- Jan 5)Introduction, Measurement of Dielectric Constant	<a href="https://www.bharathuniv.ac.in/college/s1/downloads/courseware_eee/Notes/CE1/BEE013%20HVE%20NOTES.pdf">https://www.bharathuniv.ac.in/college/s1/downloads/courseware_eee/Notes/CE1/BEE013%20HVE%20NOTES.pdf</a>	<a href="https://www.youtube.com/watch?v=gNjd3LIMwBw">https://www.youtube.com/watch?v=gNjd3LIMwBw</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m5.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m5.pdf</a>
15EE73/modul Week 6: ( Jan 6- Jan 15) Loss Factor, Partial Discharge Measurements.	<a href="http://www.faadoengineers.com/online-study/post/eee/high-voltage-engineering/129/measurement-of-dielectric-constant-and-loss-factor">http://www.faadoengineers.com/online-study/post/eee/high-voltage-engineering/129/measurement-of-dielectric-constant-and-loss-factor</a>	<a href="https://www.youtube.com/watch?v=6lbwI4PsiBs">https://www.youtube.com/watch?v=6lbwI4PsiBs</a>	<a href="http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m5.pdf">http://www.vtuupdates.in/wp-content/uploads/eee/7th-sem/15ee73/m5.pdf</a>