

GANESH INSTITUTE OF ENGINEERING AND TECHNOLOGY, POLYTECHNIC

DEPARTMENT OF ELECTRICAL ENGINEERING

Er. MADHUSMITA SAHOO

LESSON PLAN CUM PROGRESS REPORT

SUBJECT: EPTD (EEPC204)			SEMESTER: 4 TH				BRANCH: ELECTRICAL ENGINEERING		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./ CHAPT. NO./ PAGE NO.	WEB REFERENCE IF ANY	TEACHING LEARNING METHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
1	1	2	CHAPTER-01: Basics of Transmission and Distribution	PRINCIPLES OF POWER SYSTEM BY V.K. MEHTA, S. CHAND AND CO. NEW DELHI. Chap No - 1 Pg No - 3	https://www.youtube.com/watch?v=35SaHdWWLrA .	1-Introduction to EPTD - 5 min 2-Prerequisites for EPTD -PPT/Smart board- 10 min 3-Syllabus & CO discussion- 10 min 4-Lecture- 35 min	05-01-2026		
2	1	2	1.1 Single line diagrams with components of the electric supply transmission and distribution systems	Chap No - 1 Pg No - 5	https://www.youtube.com/watch?v=OKkOif2JYRE	1-Introduction to Transmission and Distribution systems- 15 min 2-Lecture- 45 min	06-01-2026		
3	1	2	1.2 Classification of transmission lines	Chap No - 1 Pg No - 7	https://www.youtube.com/watch?v=zqumAkuR0Ho	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	08-01-2026		
4	1	2	1.3 Primary and secondary transmission	Chap No - 1 Pg No - 8	https://www.youtube.com/watch?v=7PrBxwppdiY	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	09-01-2026		
5	1	2	1.4 Standard voltage level used in India	Chap No - 1 Pg No - 10	https://www.youtube.com/watch?v=1GsrQwggSMw	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	12-01-2026		
6	1	2	1.5 Classification of transmission lines: based on type of voltage, voltage level, length, and others	Chap No - 1 Pg No - 12	https://www.youtube.com/watch?v=PSUHC99Cn80	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	13-01-2026		
7	1	3	1.6 Characteristics of high voltage for power transmission	Chap No - 1 Pg No - 15	https://www.youtube.com/watch?v=EPzyeWDpdjQ	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	15-01-2026		

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8	1	2	1.7 Method of construction of electric supply transmission system- 110 kV, 220 kV, 400 kV	Chap No - 1 Pg No - 18	https://www.youtube.com/watch?v=CrCAm7wtaOl	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	17-01-2026		
9	1	2	1.8 Method of construction of electric supply distribution systems- 220 V, 400V, 11 kV, 33 kV	Chap No - 1 Pg No - 21	https://www.youtube.com/watch?v=wlgcF4ynTB8	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	19-01-2026		
10	1	3	Doubt Clearing and Assignment	Chap No - 1	https://www.youtube.com/watch?v=B9Dr82pm5-E	1-Doubt Clearing- 20 min 2- Assignment- 10 min 3-Smart Class- 30 min	20-01-2026		
11	2	2	CHAPTER-02: Transmission Line Parameters and Performance	Chap No - 2 Pg No - 27	https://www.youtube.com/watch?v=CP3C3VZpwnl	1-Introduction to Transmission Lines- 5 min 2-Lecture- 45 min	22-01-2026		
12	2	2	2.1 Line Parameters: Concepts of R, L and C of line parameters and types of lines	Chap No - 2 Pg No - 29	https://www.youtube.com/watch?v=1DIt5OioMHo	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	24-01-2026		
13	2	3	2.2 Performance of short line: Efficiency, regulation and its derivation, effect of power factor, vector diagram for different power factor	Chap No - 2 Pg No - 30	https://www.youtube.com/watch?v=qdMjRx9ak6l	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	27-01-2026		
14	2	3	2.3 Performance of medium line: representation, nominal 'T' method	Chap No - 2 Pg No - 34	https://www.youtube.com/watch?v=0BI6V ar3Kpl	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	29-01-2026		
15	2	3	Performance of medium line: representation, nominal ' π ' method	Chap No - 2 Pg No - 35	https://www.youtube.com/watch?v=wpXHJraBaM	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	30-01-2026		
16	2	3	Performance of medium line: representation end condenser method	Chap No - 2 Pg No - 36	https://www.youtube.com/watch?v=PIUsfZryO4	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	31-01-2026		
17	2	3	2.4 Transposition of conductors and its necessity	Chap No - 2 Pg No - 38	https://www.youtube.com/watch?v=eSjvNUI7kRo	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	02-02-2026		

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18	2	2	2.5 Skin effect and proximity effect	Chap No - 2 Pg No - 40	https://www.youtube.com/watch?v=-CgQ2nSqW-w	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	04-02-2026		
19	2	3	Doubt Clearing and Assignment	Chap No - 2	https://www.youtube.com/watch?v=aOApN2eCSJA	1-Doubt Clearing- 20 min 2- Assignment- 10 min 3-Smart Class- 30 min	06-02-2026		
20	3	2	CHAPTER-03: Extra High Voltage Transmission	Chap No - 3 Pg No - 43	https://www.youtube.com/watch?v=nbl-B6tjITs	1-Introduction to EHV Transmission Lines- 15 min 2-Lecture- 45 min	09-02-2026		
21	3	3	3.1 Extra High Voltage AC (EHVAC) transmission line: Necessity, high voltage substation components such as transformers and other switchgears	Chap No - 3 Pg No - 45	https://www.youtube.com/watch?v=CbAZZEewHes	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	10-02-2026		
22	3	4	3.1.1 Advantages, limitations, and applications of EHVAC 3.1.2 EHVAC lines in India	Chap No - 3 Pg No - 47	https://www.youtube.com/watch?v=c_x0csHhAEo	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	13-02-2026		
23	3	2	3.2 Ferranti and Corona effect	Chap No - 3 Pg No - 50	https://www.youtube.com/watch?v=Ebl28thueXl	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	16-02-2026		
24	3	4	3.3 High Voltage DC (HVDC) Transmission Line: Necessity components, advantages, limitations, and applications	Chap No - 3 Pg No - 53	https://www.youtube.com/watch?v=4RPYQ753TCE	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	17-02-2026		
25	3	3	3.3.1 Layout of monopole, bi-Polar, and homo-polar transmission lines of HVDC 3.3.2 HVDC Lines in India	Chap No - 3 Pg No - 56	https://www.youtube.com/watch?v=F4JQ8JULJw8	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	19-02-2026		
26	3	2	3.4 Features of EHVAC and HVDC transmission line	Chap No - 3 Pg No - 60	https://www.youtube.com/watch?v=kCn4Spy0cdc&list=PLNK1c1aGI7KUmXMEfdJrGTINlpDNvbMlo	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	21-02-2026		

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27	3	2	3.5 Flexible AC Transmission line: Features, types of FACTS controller	Chap No - 3 Pg No - 63	https://www.youtube.com/watch?v=ncEcRTZJbX0	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	23-02-2026		
28	3	3	3.6 New trends in wireless transmission of electrical power Doubt Clearing and Assignment.	Chap No - 3 Pg No - 66	https://www.youtube.com/watch?v=SkJDHk4cnfA	1-Lecture & Doubt Clearing- 35 min 2- Assignment- 10 min 3-Smart Class- 15 min	24-02-2026		
29	4	2	CHAPTER-04: A.C Distribution System	Chap No - 4 Pg No - 70	https://www.youtube.com/watch?v=91XeNpCHAZw	1-Introduction to AC Distribution System - 15 min 2-Lecture- 45 min	26-02-2026		
30	4	2	4.1 AC distribution: Components classification, requirements of an ideal distribution system, primary and secondary distribution system	Chap No - 4 Pg No - 73	https://www.youtube.com/watch?v=7v11kvTOvrQ	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	27-02-2026		
31	4	3	4.2 Feeder and distributor, factors to be considered in design of feeder and distributor	Chap No - 4 Pg No - 78	https://www.youtube.com/watch?v=2OJMGLIZI08	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	02-03-2026		
32	4	3	4.3 Types of different distribution schemes: radial, ring, and grid, layout, advantages, disadvantages, and applications	Chap No - 4 Pg No - 83	https://www.youtube.com/watch?v=nXEnVK12O-w	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	04-03-2026		
33	4	3	4.4 Voltage drop, sending end and receiving end voltage	Chap No - 4 Pg No - 87	https://www.youtube.com/watch?v=GMPTqkjeX4M	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	07-03-2026		
34	4	3	4.5 Distribution Sub-Station: Classification, site selection, advantages, disadvantages, and applications	Chap No - 4 Pg No - 92	https://www.youtube.com/watch?v=DyySeVxGs_Y	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	10-03-2026		
35	4	2	4.6 Single Line diagram (layout) of 33/11KV Sub-Station, 11KV/400V sub-station	Chap No - 4 Pg No - 95	https://www.youtube.com/watch?v=B9Dr82pm5-E&list=PLCp6ijhdS9kMcAQB0ZSUvT88rZkVgK3-m	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	13-03-2026		
36	4	2	4.7 Symbols and functions of their components	Chap No - 4 Pg No - 97	https://www.youtube.com/watch?v=DyySeVxGs_Y	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	16-03-2026		

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37	4	3	Doubt Clearing and Assignment	Chap No - 4	https://www.youtube.com/watch?v=tCgDTh1mnvs	1-Doubt Clearing- 20 min 2- Assignment- 10 min 3-Smart Class- 30 min	17-03-2026		
38	5	2	CHAPTER-05: Components of Transmission and Distribution Line	Chap No - 5 Pg No - 101	https://www.youtube.com/watch?v=jTcT1GNZCAA	1-Introduction to Components of Transmission and Distribution Lines- 15 min 2-Lecture- 45 min	19-03-2026		
39	5	3	5.1 Overhead Conductors: Properties of material, types of conductors with trade names, significance of sag	Chap No - 5 Pg No - 102	https://www.youtube.com/watch?v=jYHzKNb8e6Y	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	20-03-2026		
40	5	2	5.2 Line supports: Requirements, types of line structures and their specifications, methods of erection	Chap No - 5 Pg No - 104	https://www.youtube.com/watch?v=kytqmwUoBqY	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	23-03-2026		
41	5	2	5.3 Line Insulators	Chap No - 5 Pg No - 106	https://www.youtube.com/watch?v=k78GHf-aT7M	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	26-03-2026		
42	5	3	5.3.1 Properties of insulating material 5.3.2. Selection of material 5.3.3 Types of insulators and their applications 5.3.4 Causes of insulator failure	Chap No - 5 Pg No - 109	https://www.youtube.com/watch?v=x0X1p42ykc	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	28-03-2026		
43	5	4	5.3.5 Derivation of equation of string efficiency for string of three suspension insulator	Chap No - 5 Pg No - 113	https://www.youtube.com/watch?v=swdGTfqHKgA	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	02-04-2026		
44	5	3	5.3.6 Methods of improving string efficiency	Chap No - 5 Pg No - 115	https://www.youtube.com/watch?v=UR2wm-8qUq8	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	04-04-2026		

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45	5	3	5.4 Underground Cables: Requirements, classification, construction, comparison with overhead lines, cable laying and cable jointing.	Chap No - 5 Pg No - 117	https://www.youtube.com/watch?v=y7eYB6XwAZI	1-Previous class topic Review- 5 min 2-Lecture- 45 min 3-Doubts- 10 min	07-04-2026		
46	5	3	Doubt Clearing and Assignment	Chap No - 5	https://www.youtube.com/watch?v=JZkjTqt-qC8	1-Doubt Clearing- 20 min 2- Assignment- 10 min 3-Smart Class- 30 min	09-04-2026		

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