



# TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING & TECHNOLOGY

Wardha Road, Nagpur - 441108

Accredited with NAAC A+ Grade

Approved by AICTE, New Delhi, Govt. of Maharashtra

(An Autonomous Institution Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)



## Department of Electrical Engineering (NBA Accredited)

Third Year (Semester-VI) B. Tech. Electrical Engineering

### BEE3602: EHVAC and HVDC Transmission

#### Assignment No. - II

1.	Compare EHVAC and HVDC transmission on the following aspects. i) Bulk Power Transmission ii) Power flow control iii) Skin effect iv) Insulation level v) Technical Performance vi) Economical Consideration	CO3
2.	State the different kinds of HVDC link along with their advantages and disadvantages and application.	CO3
3.	Explain the function and types of MTDC system.	CO3
4.	What is Earth electrode state the factors to be considered for selection of site for Earth Electrode.	CO3
5.	Draw single line schematic diagram of AC harmonic filter in a typical HVDC substation.	CO4
6.	What are the objectives of operating DC link in Parallel with AC line. Explain how its objectives are achieved.	CO4
7.	Explain in short: i) Single frequency tuned filter. ii) Double frequency tuned filter.	CO4
8.	Describe the function of MRTB and its applications.	CO5
9.	On what factor is the reactive power requirement of a converter station depend.	CO5
10.	Derive the expression for the reactive power requirement of HVDC substations.	CO5
11.	Describe the term switching energy how is the commutation principle is used for HVDC ckt. Breaker.	CO5
12.	Compare the protection philosophy of EHVAC and HVDC transmission.	CO5

Date of assignment display:13/03/2024

Date of assignment submission: 30/04/2024

Course Coordinator

HoD,EE