

**B.N.COLLEGE OF ENGINEERING & TECHNOLOGY &
TECHNOLOGY, LUCKNOW**

Course Outcomes 7th Semester

Departmental Elective-IV

Power Quality and FACTS (KEE-074)

Pre-requisites of course: Power System-I & II

Course Outcomes:		Knowledge Level, KL
Upon the completion of the course, the student will be able to:		
CO 1	Classify the power quality issues in electrical distribution network	K2
CO2	Describe the sources of voltage sag and protective devices including voltage regulators, active series compensator and UPS.	K1
CO3	Describe the different phenomenon causing electrical transients and devices for over voltage protection.	K2
CO4	Explain the working and application of different type of FACT devices like SSC, SVC, TSC, SSS, TCSC, and UPFC.	K2
CO5	Explain the causes of harmonics, its effect on motor, capacitor, cables and mitigation techniques.	K2

KL- Bloom's Knowledge Level (K1, K2, K3, K4, K5, K6)

K1 – Remember K2 – Understand K3 – Apply K4 – Analyze K5 – Evaluate K6 – Create

Departmental Elective-V

Utilization of Electrical Energy & Electric Traction (KEE-079)

Pre-requisites of course: Basic Electrical Engineering, Electrical Machines-I & II

Course Outcomes:		Knowledge Level, KL
Upon the completion of the course, the student will be able to:		
CO 1	Describe the methods of electric heating and their advantages.	K1
CO2	Explain the types of Electric welding and the principle of Electro-deposition, laws of electrolysis and its applications	K2
CO3	Explain the laws of illumination and explain the principle of refrigeration and air-conditioning.	K2
CO4	Describe the different types of Electric traction, system of track electrification and its related mechanics	K2
CO5	Describe the salient features of traction drive and concept of energy saving using power electronic control of AC and DC drives	K2

KL- Bloom's Knowledge Level (K₁, K₂, K₃, K₄, K₅, K₆)

K₁ – Remember K₂ – Understand K₃ – Apply K₄ – Analyze K₅ – Evaluate K₆ – Create

