

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Semester: III Electrical Engineering

Subject Name: **Power Quality Management**

Sr.No	Course content
1.	Introduction to Power Quality: 1.1 Defination of power Quality, Progreassion susceptibility Criteria. 1.2 Responsibility of supplier and users of elect power. 1.3 Standards
2.	Power Frquency disturbance: 2.1 voltage sags 2.2 cures of law frequency disturbances. 2.3 voltage tolerance.
3.	Electrical transients: 3.1 Transient system model 3.2 Examples of models & response. 3.3 Types and causes of transients. 3.4 Examples of transient wave forms
4.	Harmonics: 4.1 Defination , number, odd and even harmonics, causes of harmonics 4.2 Individual & total distortion. 4.3 Harmonics signatures. 4.4 Effect of harmonics 4.5 Guide lines for harmonic voltage & current limitation 4.6 Harmonic current mitigation
5.	Grounding & Bonding
6.	Power Factor
7.	Electromagnetic interference
8.	Power quality measurement
9.	Solving power quality problems
10.	Distributed generation.

Reference Books:

1. Power quality by C.Sankaran(CRC publication)
2. Electrical Power Systems Quality by Roger C.Dugan(TMh publication)