

SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Electronics)
Semester: VI
Syllabus with Effect from: November-2013

Paper Code: US06CELE05	Total Credit: 3
Title of Paper: Industrial Electronics	

Unit	Description in detail	Weightage (%)
I	Phase control Half wave and Full wave Phase control circuits, Half controlled Bridge circuits, Dual converter, Application to speed control of motors, Regulated DC power supplies.	25%
II	Choppers, Principle of Chopper operations, control strategies, Step up chopper, Step Up/Down chopper.	25%
III	Chopper configuration, First quadrant Type A chopper, Second quadrant Type B chopper, Two quadrant Type A chopper Type C chopper	25%
IV	Thyristor Protection circuits, Gate control circuits, over voltage and over current protection, Design of snubber circuit, SCR Mounting, Programmable Logic controller, Basic configuration of PLC.	25%

Basic Text & Reference Books:

- An Introduction to Thyristors and their Applications. By : M Ramamoorthy
- Thyristor Power controller By : G.K.Dubey, S.R.Doralde and A.Joshi
- Power Electronics By: M.D.Singh and K.B.Khanchandani

