

SARDAR PATEL UNIVERSITY
Programme: B.Sc (Electronics & Communication)
Semester: VI
Syllabus with effect from: November/December-2013

Paper Code: US06CELC03	Total Credit: 3
Title Of Paper: Operation Amplifier & Its Applications	

Unit	Description in detail	Weighting (%)
I	Op-amp, Basic op-amp Op-amp parameter: AC & DC parameter, Inverting amplifier, Non-inverting amplifier, Difference amplifier, Subtractor, instrumentation amplifier, Voltage follower, Summing amplifier.	
II	Non- linear op-amp application. Non- linear op-amp application: Non-linear device & their models, Non-linear op-amp amplifiers, Basic logarithmic amplifier, Temperature compensated log amplifier, Antilog amplifier, Chopper stabilized amplifier, Integrater Amplifier, Differentiator Amplifier	
III	Filter Introduction, Comparison of Active & Passive filter, Characteristics and its response, Active low pass filter, Active high pass filter, Active band pass filter, Notch filter, All pass filter.	
IV	Signal Converters Introduction of signal conversion, Types of analog to digital conversion, Types of digital to analog conversion, Specification of DAC & ADC, Voltage to frequency conversion, Frequency to voltage conversion.	

Basic Text & Reference Books:-

- Electronics Instrumentation and Measurement system – J.G. Joshi
- Operational Amplifier & Linear integrated Circuits – R.A.Gayakwad
- Digital Principles and its Application – Malvino and Leach
- Integrated Circuit - Taub & Schilling
- Instrumentation Devices and Systems - C.S.Rangan, R. Sharma, V.S.Mani(Tata McGraw Hill)

