DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

5. Name of the Lab   :   ANALOG AND DIGITAL CIRCUITS LABORATORY

Subject Code   :   EC8361 (ODD SEMESTER)   Regulations: R17

LIST OF ANALOG EXPERIMENTS:

1. Design of Regulated Power supplies

2. Frequency Response of CE, CB, CC and CS amplifiers

3. Darlington Amplifier

4. Differential Amplifiers – Transfer characteristics, CMRR Measurement

5. Cascode and Cascade amplifiers

6. Determination of bandwidth of single stage and multistage amplifiers

7. Analysis of BJT with Fixed bias and Voltage divider bias using Spice

8. Analysis of FET, MOSFET with fixed bias, self-bias and voltage divider bias using simulation software like Spice

9. Analysis of Cascode and Cascade amplifiers using Spice

10. Analysis of Frequency Response of BJT and FET using Spice

LIST OF DIGITAL EXPERIMENTS

1. Design and implementation of code converters using logic gates(i) BCD to excess-3 code and vice versa (ii) Binary to gray and vice-versa

2. Design and implementation of 4 bit binary Adder/ Subtractor and BCD adder using IC 7483

3. Design and implementation of Multiplexer and De-multiplexer using logic gates

4. Design and implementation of encoder and decoder using logic gates

5. Construction and verification of 4 bit ripple counter and Mod-10 / Mod-12 Ripple counters

6. Design and implementation of 3-bit synchronous up/down counter

CONTENT BEYOND THE SYLLABUS

1. Binary To Excess-3 Code Converter

2. Class C amplifier using FET