

EC29003 Introduction to Electronics Lab. (Autumn 2020)
Online Experiment Coverage
Section-1 → Tuesday (2:00PM – 5PM)

Expt. No.	Title of Experiment	Virtual Labs Expt No. http://vlabs.iitkgp.ernet.in/be/	Circuit Simulator Link https://www.falstad.com/circuit/
1.	Measurement of resistance, classification of capacitors, diode testing	1, 2, 3	--
2.	Familiarisation with signal generator, oscilloscope, and studies on RC, CR, and RL circuits	13	Circuits <ul style="list-style-type: none"> • Passive Filters <ul style="list-style-type: none"> ○ High-Pass Filter (CR) ○ Low-Pass Filter (RC) ○ High-Pass Filter (RL) ○ Low-Pass Filter (LR)
3.	Studies on Rectifiers and Power Supply	6, 7	Circuits <ul style="list-style-type: none"> • Diode <ul style="list-style-type: none"> ○ Half-Wave Rectifier ○ Full-Wave Rectifier ○ Full-Wave Rectifier w/ Filter
4.	Studies on Small Signal CE-Amplifier	12	Circuits <ul style="list-style-type: none"> • Transistors <ul style="list-style-type: none"> ○ Common-Emitter Amplifier
5.	Studies of analog circuits using op amps	16, 17	Circuits <ul style="list-style-type: none"> • Op Amps <ul style="list-style-type: none"> ○ Amplifiers <ul style="list-style-type: none"> ▪ Inverting Amplifier ▪ Noninverting Amplifier ▪ Summing Amplifier ▪ Differential Amplifier ○ Integrator ○ Differentiator

Note:

1. You have to do the experiment both in Virtual Labs website and the Circuit Simulator Link as mentioned in the table above.
2. The results should be shown to the respective TAs.
3. The circuit diagrams need to be drawn using the following web-site:

<https://www.circuit-diagram.org/editor/>

The lab report should be made which should have the following sections:

- Aim of the experiment
- Circuit Diagram
- Procedure
- Observations and Plots
- Discussion

The lab-reports need to be uploaded as per the following deadline:

- Expt. 1 → 21st Sept. 2020
 - Expt. 2 → 28th Sept. 2020
 - Expt. 3 → 12th Oct. 2020
 - Expt. 4 → 26th Oct. 2020
 - Expt. 5 → 2nd Nov. 2020
4. There will be 3 quizzes (Multiple choice and is cumulative)
 - a. 1st Quiz after Expt. No. 2 → 29th Sept. (2PM-3PM)
 - b. 2nd Quiz after Expt. No. 4 → 3rd Nov. (2PM-3PM)
 - c. 3rd Quiz after Expt. No. 5 → 10th Nov. (2PM-3PM)