

ELECTRICAL CIRCUITS LABORATORY

Laboratory Information

Lab Name: Electrical Circuits Laboratory

Room No.: 146 - Colleges of Engineering and Technology

Capacity: 20 students

It provides the essential knowledge for the student to understand and validate the AC and DC electric circuits' concepts. The laboratory also familiarizes the students with measurements devices, power supplies and different circuit elements.

The lab provides various tests and runs numerous experiments to out the following research activities:

- Making basic measurements with the HP8590 E-Series and L- Series spectrum Analyzer.
- Decreasing the frequency span using the marker
- Tracking unstable signals using marker track and the max. hold and min. hold function.
- Tracing of the output of some power electronic circuits using the storage oscilloscope
- Transferring of output data of different circuits is done using a system of storage oscilloscope and Computer PC.
- Studying of different shapes available in the function generation and comparison between their average root mean square value and instantaneous values.

Laboratory Equipment

- Spectrum Analyzers.
- Digital Oscilloscopes.
- Multiplexer.
- Dual Digital DC Power Supplies
- Dual Digital Function Generators
- Digital LCR Meter.
- Digital Multi-meter.
- Training Boards.



Figure 1.7 Electrical Circuits Laboratory

Laboratory Serves the following courses:

| Course Code | Course Title | Semester |
|-------------|----------------------------------|-----------------|
| EE 238 | Electrical Eng. Fundamentals | 3 rd |
| EE 218 | Instrumentation and Measurements | 4 th |