Logic Design LAB

This laboratory is considered one of the most important first year labs. The laboratory represents the practical aspect of the theoretical study of the digital and logical circuits which the first-year students study.

LABORATORY OBJECTIVES

1. Help the student understand the various digital and logical circuits through theoretical analysis and construct these circuits and analyze them.
2. Introducing logical gates to the students, how they work, the application of Boolean Algebra laws, and the de Morgan theory using digital logic design kits, Then the students start designing the following circuits:
   a. Adders and Subtractors.
   b. Binary to gray code convertor.
   c. Comparators.
   d. Encoders & Decoders.
   e. Multiplexer & Demultiplexer.
   f. Flip-Flops.
   g. Shift Registers.