**VIRTUAL ELECTRONIC LAB**

**Abstract**

Virtual labs provide a remotely operated lab environment for students to perform experiments. This can be useful in testing the equipments and devices remotely. The lab has various equipment that can be remotely started or stopped.

In order to achieve this kind of remote access both hardware and software infrastructure support is needed. The hardware infrastructure may be comprising of robots that are controlled from the location via internet. The software infrastructure must allow remote commanding of the robots via well known programming language developed for this purpose.

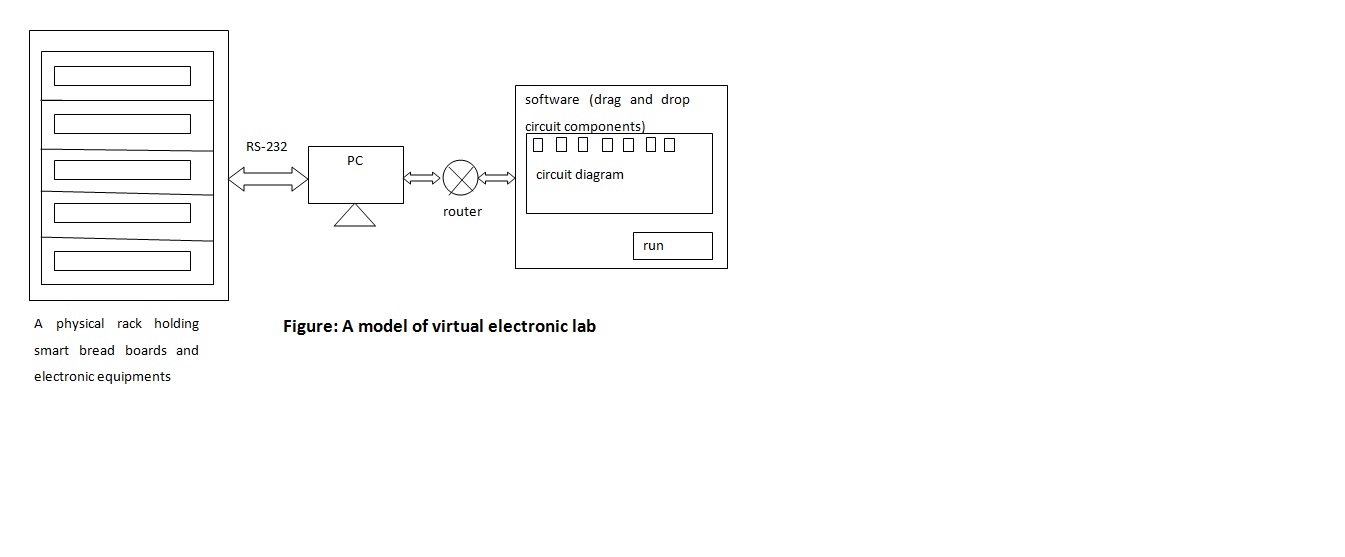
The students aren’t physically present in the lab ,the students who are using virtual labs are expected to be able to understand ,analyze, design & optimize various kinds of experiments using various electronic, electrical & other engineering components.

V-Lab Setup:

* Circuit design: A software is designed, Where the circuit elements can be in drag and drop manner to build a circuit.
* This circuit/Program is sent to the V-Lab pc via internet.
* Physical rack: At V-Lab, a physical rack is maintained to organize all the necessary experimental equipments.
* According to the users request, the particular experiment is performed. The experiment conduction is done either manually or by a programmed robot and the entire procedure is captured by a camera and is transmitted to the user.

**.**

**Model of V-Lab**

****