

BULETINUL INSTITUTULUI POLITEHNIC DIN IAȘI  
TOMUL LIV (LVIII), FASC. 3, 2008  
ELECTROTEHNICĂ, ENERGETICĂ, ELECTRONICĂ

## VIRTUAL LABORATORY

BY

**\*M. V. PAULET, \*OANA MARIA NEACSU, \*L. TOMA and \*M. CREȚU**

**Abstract.** Learning instrumentation and how to make measurements is important to all engineering students early in their academic careers virtual instruments can be used to teach all of these areas of instrumentation. The Department of Electrical Measurements and Materials at Faculty of Electrical Engineering uses its first project laboratory, offered in the second semester of the sophomore year, to cover measurements, instrumentation and other topics. The virtual laboratories provide a way to do experiments with equipment that is not physically present in the same place as the user. In a remote laboratory, the user interacts with the equipment that is physically in another place via the sensors and actuators by using a computer and a communication network (i.e. Internet). The data transmission via the Internet is efficient and inexpensive. For this reason, specific programs and protocols and data transmission systems based on Internet have been developed.

**Keywords:** virtual laboratory, data acquisition board, distributed virtual measurement.