

Development of a computer based measurement system

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Abstract:

For Physics undergraduate laboratories, most of the experiments involve data measurement by hand and result analysis on graph paper. This traditional laboratory learning method is slow and inefficient. In addition, the tedious data taking process creates a negative learning atmosphere.

The goal of this project is to develop a user friendly computer based measurement system suitable for untrained undergraduate students. The proposed system is based on a PC data acquisition system. With this innovative system, students are able to acquire digital measurement data efficiently and focus on data analysis using software tools, thus a positive learning atmosphere can be created.