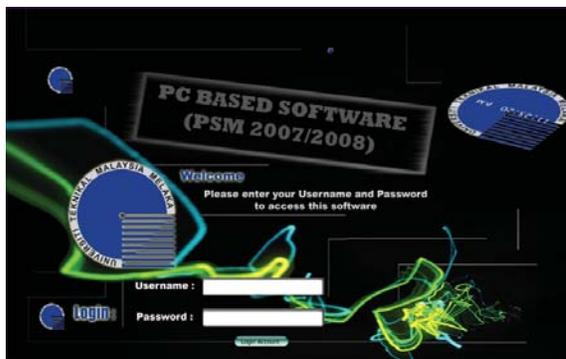


ABSTRACT

One of the most widely used electronic test equipment is oscilloscope which can display the shape of a video pulse appearing at a selected equipment test point in time domain. Spectrum analyzer also is test equipment which used to sweep over a band of frequencies to determine what frequencies are being produced by a specific circuit under test, and then the amplitude of each frequency component. This project, called PC based software for time and frequency domain, is to develop software and display signals in both domain using DAQ card instrument. Using this software, one can produce more organized data display and at the same time increase the screen size. By using Visual Basic 6.0, the interface will be designed with friendly graphical user interface (GUI). This software also has data management like saving data and picture, loading, screen capture and control wave in real time. USB port will be used for connection between PC and hardware.

OBJECTIVES

- ~ To develop a system that can measure real time input signal by using DAQ card and monitor the output through Personal Computer (PC).
- ~ To display the waveform in real time using DAQ card technology.
- ~ To analyze the Fast Fourier Transform (FFT) and frequency contents of the input signal given.



ADVANTAGES

- ~ Desktop or laptop is used to make it easy to bring to anyway and used it.
- ~ The GUI of this software is very user friendly and also high-resolution display.
- ~ More data storage and simple to save any parameter used for measure the real-time signal and analysis the signal.
- ~ More function such as resizable monitor screen, screen caption, printing and other functions which are much more convenient compare to real equipment that used for analysis.
- ~ Security system through login password.

NOVELTY

- ~ A low cost of Oscilloscope and Spectrum Analyzer.
- ~ Useful tool in education for doing experiment and helps student in learning.
- ~ Able to measure lower frequency and more efficient in producing output signal.
- ~ More design and graphical interface using Flash.

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