

Abstract

This thesis is about development of remote data acquisition system using PicoScope 2207A oscilloscope. The system is capable of generating signals, acquiring data, display data and process the acquisition signal. Moreover the system suitable for remote controlling and measurement without staying at the measured system. Due to the capability of the selected oscilloscope the created system is mobile because the PicoScope contains the ability of the measuring instruments and the signal generators.

The measuring system contains a software package, which is able to control all features by the help of the graphical user interface. It was developed in Python programming language, which has two parts. One of them is the client side and the other is the server side. These two parts are connected by the network. The sides communicate through TCP/IP protocol.

The purpose of my task has created an experimental measurement system, which can help demonstrate the laboratory tasks and it could be an intelligent measurement system by future developments even for industrial purposes.