Abstract

Virtual Instruments are the motivational component for remote experimentation in Science and Engineering. The paper presents the use of Virtual Instruments in simulation and control of bioreactors process parameters, which leads easy extension to remote laboratory practices. The process systems equivalent to bioreactors process parameters, temperature, pH and agitation speed are modeled and the corresponding control algorithms are developed to obtain the acceptable output response. The sensors and actuators are simulated and the interface to the actual hardware can be established through the data acquisition systems. The graphical user interface developed using LabVIEW transfer information to the networked clients through web server and standard internet browsers for data access.

Reference

32, 299-306.


**Index Terms**

Electronics Computer Applications

**Key words**

PID control

Remote Access
Simulation

Virtual Instruments