

Design and Construction of Temperature and Humidity Control Channel for a Bacteriological Incubator

Authors : Carlos R. Duharte Rodríguez, Ibrain Ceballo Acosta, Carmen B. Busoch Morlán, Angel Regueiro Gómez, Annet Martínez Hernández

Abstract : This work shows the designing and characterization of a prototype of laboratory incubator as support of research in Microbiology, in particular during studies of bacterial growth in biological samples, with the help of optic methods (Turbidimetry) and electrometric measurements of bioimpedance. It shows the results of simulation and experimentation of the design proposed for the canals of measurement of the variables: temperature and humidity, with a high linearity from the adequate selection of sensors and analogue components of every channel, controlled with help of a microcontroller AT89C51 (ATMEL) with adequate benefits for this type of application.

Keywords : microbiology, bacterial growth, incubation station, microorganisms

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