ABSTRACT

Centrifuge to be used should be in good condition by comparing with the measuring instrument that is ingested tachometer. There have been developments by some researchers before but have some shortcomings, namely sending data using cables, not equipped with hold mode, and entering data manually. The purpose of this study was to analyze measurements on android-based centrifuge kalibrator design with three different distances. The contribution of this research is the system of sending measurement display data automatically to android and equipped with a stand to put the tachometer. The transmitter emits a laser beam to the object that will be captured by the receiver and will be processed to be displayed to android. Measurements were taken 5 times at each setting with a distance of 20cm, 30cm, and 40 cm for single and double laser sensors. The average error value on the largest single sensor is 1.8% distance 40cm and in double sensor is 2% distance 20cm. The results of this study showed that sending data directly to android can minimize human error and the reading results of two different sensors in the tachometer design can produce different values at different distances.. This research can be implemented as a centrifuge measuring instrument with easier use and can efficient data collection time.

Keywords: Tachometer, Stand, Android