A NARROW RANGE DIGITAL DENSITOMETER FOR
MEDICAL APPLICATION

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ABSTRACT

Digital displays have many advantages over their analog counterparts. They are more accurate, and more rugged since there are no moving parts. Equally important, unskilled operators can record accurate data due to the unambiguous nature of the readout.

A digital densitometer has been developed in order to measure the density of film. We built this unit by using the local materials which are available in the country.

The main purpose of this work is to develop the digital densitometer for using in medical purpose (i.e. measuring the density of the film badge, X-ray film etc.). The LDR have been used as a light sensor which is coupled to a digital voltmeter (model ICL 7107 DVM) through an electronic circuit.

The calibration of this unit have been made through the standard film (KODAK Density strip). We have measured the unknown films and compared the results with Macbeth digital densitometer (model TD-504 AM). The results are satisfactory.