

LUX MEASUREMENT SYSTEM DESIGN

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With the name of ALLAH Most Gracious Most Merciful

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ABSTRACT

This study is carried out to design a lux measurement system. The lux measurement system is a design to measure brightness of street light in lux. Brightness is an attribute of visual perception. It is a source appears to be radiating or reflecting light. In other words, brightness is the perception elicited by the luminance of a visual target. This is a subjective attribute or property of an object being observed. It can be measured while in moving situation. In this study, the lux measurement system was designed using a voltage divider circuit. By connecting light dependent resistor (LDR) to another resistor in series, it became a voltage divider where the voltage drop across it acts as a function of the light intensity. A voltage divider is useful in determining the voltage drop across the resistance within a series circuit. This Lux Measurement System Design has memory to store the measured values and software to analyze readings.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This section consists of five parts. Starting with background of study then followed by problem statements, objectives, scope of study, and finally thesis overview. It will discuss briefly about an introduction for overall of this design. Hopefully in this section it will give better understanding about this design.

1.2 BACKGROUND OF STUDY

In doing lighting efficiency work, it needs to measure light intensity and also needs to know how to express light intensity for selecting lamps and for laying out the overall lighting configuration. Unfortunately, lighting terminology tends to be confusing and somewhat inconsistent. For terms that the lighting trade uses to communicate about light intensity, and it points out which of these terms are important to know. The unit of light intensity is lux.