PROJECT TITLE

A UNIQUE LIQUID LEVEL CONTROLLER

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ABSTRACT

The Unique Liquid Level Controller is a control system designed to detect water level of any level using a sensor probes. The purpose of the sensors are to inspect work in progress and to monitor the work in progress interface with the manufacturing equipment.

This project is usually used for premises which have overhead tanks or hopper and the water supply is provided by corporations. Besides, liquid level sensors is also used in Manufacturing Process Control for Petroleum and Chemical Plants.

In this project, the circuit are divided into 4 stages. The circuit displays will defined the output of liquid level controller. This level controller can show the discrete levels in percentage from 0 to 100 percent with 10 percent resolution.

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TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

1.1 Background

Today's sensors and control system have explosively expanded beyond their traditional production base into far-ranging commercial ventures. They will play on important rule in the survival or innovative industries. Their role in information assimilation control of operations to maintain an error-free production environment, will help enterprises to stay effective on their competitive course.

Sensors provide a means for gathering information on manufacturing operations and process being performed. In instance, sensors are used to transform a physical stimulus into an electrical signal that may be analyzed by manufacturing system and used for making decisions about the operations being conducted.

Process control sensors in manufacturing will play a significant role in improving productivity, qualitatively and quantitatively throughout the coming decades. The main parameter to be measured and controlled in industrial plants are temperature, fluid level and flow.

There are two types of techniques are used to control the level of materials in a container On-Off and proportional. The On-Off method activates a device used to fill a container when the level is too low. When the desired level is reached, the filling operation stops. The proportional method maintains a desired level by filling the container at the same rate as the material it holds is removed.

In designing the Unique Water Level Controller, a separate alternative circuit is to provide a display in terms of the percentage of full scale level. It can either be used to replace the digital display or it can be used in conjunction with an audio alarm unit and the power supply circuit independently.