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FINAL REPORT OF DIPLOMA PROJECT

A DAY INDICATOR WITH ALPHABETICAL DISPLAY

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ABSTRACT

The title of this project is a day indicator with the alphabetical display. It's used in conjunction with the circuit for the digital clock will automatically display the day in words. The input is a one per day pulse train is counted in a divide-by-seven counter. The counter output s is '0' initially. On receiving the first pulse, it will become '1'. These counts will be in binary code. Thus, if '0' had represented Sunday, '1' will represent Monday. Similarly, at the sixth pulse, the counter output will read '6', representing Saturday. On the seventh pulse, the counter output will momentarily read '7'. This is immediately decoded and the counter is reset to '0'. Thus, after Saturday, the output will automatically be set to read Sunday. The decoder senses the binary output from the counter and uses it to activate one of its seven outputs at a time. The IC used actually has ten outputs, but only seven are used. Thus, when the counter output is '0', the first output is activated. When the counter output is '1', the second output is activated while the first output is de-activated. This continues in sequence and after the seventh, again the first output is activated. The activated output becomes low to indicate the day of the week. The seven output lines are simultaneously sensed by the encoding circuit which converts the decoder output into an alphabetical display format for the 7-segment display drive.

This project can help to easier our lifestyle to perform a day in alphabetical. We can used this project at home or office that can help to know a day as we forgot. Therefore it was very important to our life and has a good opportunity for commercial.

CHAPTER 1

INTRODUCTION

1.1 Background

A day indicator with the alphabetical display is digital clock where it can automatically display the day in words. We must spend a lot of money to buy a good product for commonly the thing that we needs as usual. As an alternative, I make this project to help the users know a day as advantages to them know a day at their offices or homes. The table I will represent the days in order, on the 7 segment displays. I use three 7-Segment displays with all of them are common anode display (FND507). The project used 10 IC's where IC1 is 7490 (decade counter), IC2 is 7442 (1 of 10 decoder), IC3 to IC6 are 7408 (quad 2-input AND gate) and lastly IC7 to IC10 are 7400 (quad 2-input NAND gate).