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(PENANG CAMPUS)**

FACULTY OF ELECTRICAL ENGINEERING

KEU 380

PROJECT 2

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ABSTRACT

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Title: Fun Games Circuit

Supervisor: Cik Wan Salha Binti Saidon

Fun games circuit is a simple integrated circuit .This circuit can be used to replace a dice in playing games such as snake ladder ,lingo, millionaire and others .It can count a number from zero to nine. While when we turn the switch onn, the displays will show a random number such as 1, 2, 3, 4... So on until 9.

This project consists of several devices such as resistor, capacitor, timer 555, two decade counters, switches and a display driver along with a seven segment diplay.The operation of circuit game should be started by pressing button 2 and button 3 .These buttons are to count upward and down ward counter. On the other hand, button 1 and 4 operate as a reset and power supply to the display .To start with fresh game, first we press button 1 and then press either button 2 or 3. Next, press button 4 the displays will show a random number .Finally to reset it, press button 1.

The main objective of this circuit game is to analyze the operation of timer decoder, synchronous counter and seven-segment display.

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FUN GAMES CIRCUIT

INTRODUCTION

As a beginning, we're introducing electronic circuit devices, which function as an electric games circuit. This electric circuit is content several stages, which is according to their functions. The purpose of beginning this project is because to makes us really understand the concept of functions of the electric circuit. From what we realize that now a days a lot of system in our life style is using electronics digital devices, where the electronic devices is using types of component that maybe we don't know the real operation of each component. Therefore, from this little project we can make a small research about the operation of the electronics component. As an example, we might to think that how is the operation of small "control car "that our children play as their toys .For that reasons, we want to take an opportunity to make an electronics fun/games circuits to get more idea on how is the operation the components. In this circuit game, it content a timer IC, two-decade counter and a display driver along with a 7-segment display follows as the resistor, switches and capacitors.

Let consider the overall operation of this circuit electronic scoring game. This game is simple. As started above, it is a scoring game and the competitor who scores 100 rapidly in short steps is the winner. For scoring, one has the option of pressing either switch S2 or S3.Switch S2, when pressed makes the counter count in the forward direction, while switch S3 helps to count down words. Before starting a fresh game, and for that matter even a fresh move, we must press switch, to reset the circuitThereafter,



press any of the two switches, an example switches S2 OR S3 .On pressing switches S2 or S3 .On pressing switch S2 or S3, the counters BCD outputs change very rapidly and when you when release the switches, the counters BDC output change very rapidly and when you release the switches, the last number remains latched at the output of IC2.The Latched BCD number is input to BCD to 7-segment decoder /driver IC3 which drives a display.