HIGHER TECHNICAL INSTITUTE

NICOSIA-CYPRUS

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DIGITAL THERMOMETER

E/759

PROJECT SUBMITTED BY

DEMERTZIS CONSTANTINOS

IN PART SATISFACTION OF THE AWARD OF DIPLOMA OF TECHNICAL ENGINEER IN THE DEPARTMENT OF ELECTRICAL ENGINEERING OF THE HIGHER TECHNICAL
INSTITUTE OF CYPRUS.

PROJECT SUPERVISOR : MR A. KAPLANIS

TYPE OF PROJECT: INDIVIDUAL _____
OR
GROUP _____

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ABSTRACT

THE DIGITAL THERMOMETER THAT HAS BEEN DESIGNED IS SIMPLE IN CONSTRUCTION SINCE THERE IS A SINGLE INTEGRATED CIRCUIT THAT DOES THE CONVERSION. THE INTEGRATED CIRCUIT NEEDS A REFERENCE VOLTAGE AND A CLOCK SINCE IT WORKS ON THE RAMP TYPE METHOD. THIS I.C. IS COMMONLY USED IN ALL FORMS OF VOLTAGE READINGS FOR EXAMPLE ALL THE DIGITAL VOLTMETERS THAT ARE ON THE MARKET HAVE SUCH AN I.C.,WHICH MEANS THAT IT IS ALSO EASY TO GET, AS WELL AS INEXPENSIVE.

THE CIRCUIT HAS BEEN DESIGNED TO BE AS COMPACT AS POSSIBLE, BECAUSE IT WILL BE FITTED NEXT TO THE LIGHT SWITCH, THE CIRCUIT HAS ALSO NIGHT ILLUMINATION THAT WORKS AFTER THE LUMINANCE HAS FALLEN AT A CERTAIN LEVEL. THIS LEVEL CAN BE ADJUSTED BY THE VARIABLE RESISTOR.

DIFFERENT TYPES OF CIRCUITS CAN BE JOINED ON TO THIS ONE, LIKE A THERMOSTAT THAT NEEDS ONLY AN OPERATIONAL AMPLIFIER, TRANSISTOR, RESISTORS AND A RELAY.

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