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FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



COMPOSITE ELECTRONIC ORGAN

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ABSTRACT

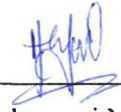
This project is composite Electronic Organ. Keeping in view the high costs and functional limitations of most commercially available electronic musical organs, this lowest cost, yet full featured eleven octave electronic organ. It is use for musical like as piano and suitable for children and adults. The organ is based on the chromatic scale, the modified diatonic with semitones. In practice, the notes played on the keyboard switches, S1-S12 and S14 is used to shift from one octave to the next. Playing music on this keyboard is like typing with a typewriter having an unusual keyboard.

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1.0 INTRODUCTION

A wide range of electronic organs and pianos are available in the market but most of these are either too expensive or their characteristic operative frequencies are limited to just an octave or two. The former types are usually based on CMOS LSI_s whereas the latter types consist of a simple usually transistorized AFO and a string of resistors (which results in rather nonstandard notes).

The functional and constructional details of a 'composite electronic organ,' featuring a perfect balance between the operative characteristics and costs, are described here. The piano uses the chromatic scale and is capable of working in 0 to 10 octaves, with a tone – semitone of a 12-keyboard. Special effects like vibrato and fuzz have also been incorporated. The piano has an internal amplifier, which delivers an output of several hundreds of milliwatt, and hence is capable of working independently. In order to keep the battery drain low, the piano is usually built using easily available CMOS IC_s.