

ACHARYA POLYTECHNIC

Achit Nagar Post, Bangalore – 560 107

(Recognized by DTE, GOVT of Karnataka & Approved by AICTE, New Delhi)



Project Report on

“CELL PHONE BASED VOTING MACHINE”

**Submitted in partial fulfillment of the requirement for the award of
Diploma in Electronics & Communication Engineering during the
Academic year 2014-15**



Submitted by

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|----------------------|----------------------|
| 1. 434EC12076 | Roshan.D |
| 2. 434EC12069 | Rakesh.R |
| 3. 434EC12077 | Sachin.M.V |
| 4. 434EC12088 | Shivaraju.K.P |

**Under the guidance of
Mahesha M
Lecturer, E&C Department**

CHAPTER-1

1. INTRODUCTION

The aim of our project is to design and develop a cell phone based voting machine. In this project user can dial the specific number from any mobile phone to cast his vote. Once the user is connected to the voting machine he can enter his password & choice of vote. If he has entered a valid choice & password his vote will be caste with duration beeps. For invalid password /choice long beep will be generated. A reset button is provided for rest the system. A total key is provided to display the result.

1.1. DTMF DECODER

In DTMF decoder circuit, IC8870 is used. IC8870 converts the dual tones into corresponding binary outputs.

1.2. DTMF SIGNALLING

AC register signaling is used in DTMF telephones, here tones rather than make/break pulse are used for dialing, and each dialed digit is uniquely represented by a pair of sine wave tones. These tones (one from low group for row and another from high group for column) are sent to the exchange when a digit is dialed by pushing the key, these tones lies within the speech band of 300 to 3400 HZ, and are chosen so as to minimize the possibility of any valid frequency pair exiting in normal speech simultaneously. Actually, this minimization is made possible by forming pairs with tone from the higher group and the other from the lower of frequencies. A valid DTMF signal is the sum of two tones, one from lower group (697-940 Hz) and the other from a higher group (1209-1663 Hz). Each group contains four individual tones; this scheme allows 10 unique combinations. Ten of these codes represent digits 1 through 9 and 0. Tones in DTMF dialing are so chosen that none of the tones is harmonic of are other tone. There is no change of distortion caused by harmonics. Each tone is sent as along as the key remains pressed. This significantly simplifies decoding because the composite DTMF signal may be separated with band pass filter into single frequency components, each which may be handled individually.