Introduction

India is amongst one of the largest democratic country in the world. The heart of democracy is the election. The constitutional right granted by the Indian constitution to its entire citizen is Right to Vote. The Election commission of India was formed on 25\textsuperscript{TH} January 1950 by the Constitution of India for administrating and conducting the elections in India. The first general election was conducted between 25\textsuperscript{TH} October 1951 to 21 February 1952, for 489 seats in 401 constituencies out of which 314 constituencies with one seat, 86 constituencies with two seats and one constituency with three seats.

The ballot paper voting was conducted from the first election in 1951 till the year 1999. For the first time in 1982 in bye-election to Parur assembly constituency of Kerala for the limited number of polling booth the Electronic Voting Machines were used. The Electronic Voting Machines are used by the election commission of India for the Indian General and State Election in the year 1999 in part and in total since 2004. The Electronic Voting Machines reduces the time to cast a vote and declaration of results as compared to old paper ballot system. It ensures the flawless counting of votes, and it has been proved that Electronic Voting Machines are better replacement for the paper ballot system.

In the year 1980, Mr. M.B. Haneefa developed the first Indian voting machine, gazetted Electronically Operated Vote Counting Machine (Gazette: 191/Mas/80,15 October 1980). The Electronic Voting machines are specially made in 1989 by the Election Commission of India with collaboration with Electronic Corporation Of India Limited. Currently Electronic Commission of India and Bharat Electronics Limited are developing the electronic voting machines for Election Commission of India.
Electronic Voting Machine

The Indian Electronic Voting Machine consists of two units Ballot Unit and Control Unit. The control unit and ballot unit are connected by a five meter long cable. The EVM is powered by six volts alkaline battery because of which it can be used in rural areas where the electricity is unavailable. One electronic voting machine is capable of storing 3840 votes and can cater to 16 candidates. One EVM can be connected to for ballot unit it means there can be 64 candidates for whom the electronic voting machines can be used in one constituency.

a. Control Unit: - The control unit is basically the processing unit of the voting machine which consist the main circuit board with microcontroller, internal software loaded mask ROM, EEPROM for storing the voted data, Ballot button to allow a voter to cast vote, count button to count the total and individual votes, and the display unit.

b. Ballot Unit: - The Ballot unit is kept in a separate compartment to cast a vote it includes the Name and Symbol of candidate and candidate button through which the voter can cast the vote.

Recent Enhancements in Indian Electronic Voting Machine

The Indian Electronic Voting machine has been recently adopted two new features as per the guidelines of S.
1. **Voter Verifiable paper Audit Trail:** - The Election commission of India ordered, Electronics Corporation of India and Bharat Electronic limited to provide paper trail of the vote cast, into the EVMs on 19 January 2012. The Voter-Verified Paper Audit Trail generates a receipt of voting so that the voters can come to know that the vote casted by them goes to the particular candidate selected by them only.

2. **NOTA:** - The Supreme Court of India ruled on 27 September 2013 to Election Commission of India that they should provide right to register the None Of The Above option in all their voting machines. In General Election 2014 the NOTA was used and polled 1.1% of the votes.

**Problem of Study**

Like other electronic machines the Electronic voting machines are also prone to errors and malfunctioning as well no machine developed in this world is infallible. Many times the electronic voting machines installed in the Indian parliament filed and the Members of Parliament had intricacy in casting their votes. In September 2008 during the confidence vote to decide fate of Dr. Manmohan Singh, 54 elected members failed to register their vote and finally these members with due permission of chairmen allowed to vote manually. If out of 543 members 54 members face difficulty then what about the general people.

An election petition filed by some political party member in Orissa High Court stating around 80,000 EVMs produced by the state government were used to manipulate 2009 Assembly and LokSabha elections. For instance, he relates that in the 2009 parliamentary election there were reported EVM malfunctions in more than 15 parliamentary constituencies across the country. Especially troubling are claims that when the voter pressed a button for one candidate, a light would ash for another EVMs are tamper-able, posing the risk of wholesale rigging of election results. Computer experts have consistently held that Indian EVMs are not completely secure from software and hardware manipulation. Also, Indian
EVMs can be hacked both before and after elections to alter election results. EVMs have already been banned in many countries, including Germany, the Netherlands, Ireland and Italy, and the list is getting longer. Thus, there is a growing lack of confidence in EVMs the world over.

**Purpose of study**

As India is a democratic country and the constitution of India provides the Right to Vote. It’s also the right of a voter to get the information that the vote casted by them goes to the particular candidate to whom they have voted. The purpose of the study is to find the loopholes of the system and to provide the better solution for the same.