

ELECTRONIC VOTING MACHINE

1. What is an Electronic Voting Machine?

It is a simple electronic device used to record votes in place of ballot papers and boxes which were used earlier in conventional voting system.

2. What are the advantages of EVM over the traditional ballot paper/ballot box system?

- (i) It eliminates the possibility of invalid and doubtful votes which, in many cases, are the root causes of controversies and election petitions.
- (ii) It makes the process of counting of votes much faster than the conventional system.
- (iii) It reduces to a great extent the quantity of paper used thus saving a large number of trees making the process eco-friendly.
- (iv) It reduces cost of printing almost nil as only one sheet of ballot paper required for each Polling Station.

3. Apart from India which are the other countries that use EVMs in elections?

Bhutan used the Indian EVMs for the whole country during their last elections. These machines were also used by Nepal for some of their constituencies during the last general elections in the country.

4. When was the EVM introduced in India?

It was first used in 1982 in the bye-election to Parur Assembly Constituency of Kerala for a limited number of polling stations (50 polling stations).

5. What are the unique features of Indian EVMs?

It is a simple machine that can be operated easily by both the polling personnel and the voters. It is sturdy enough to withstand rough handling and variable climatic conditions. Being a stand alone machine without any network connectivity, nobody can interfere with its programming and manipulate the result. Keeping the erratic power supply position in many places in the country, the machines have been made to run on batteries.

6. What was the necessity to switch to EVM from ballot paper election?

Counting of Ballot papers at an election used to take long hours creating a charged atmosphere for the counting officials as well as candidates/political parties. Sometimes this was aggravated further by the demand for recounting resulting for the low margin of difference of votes between the top 2 candidates coupled with large number of invalid and doubtful votes.

7. Who manufacture EVMs in India?

The two central govt. undertakings i.e. Bharat Electronics Limited and Electronics Corporation of India Limited are the only manufacturers from whom the EVMs are procured by the Election Commission of India.

8. Before approving EVM ,whether ECI consulted the political parties?

Yes. The matter was discussed with all the recognized political parties and demonstration held before them.

9. Whether ECI took the advice of technical expert before approving the EVM?

Yes. Before inducting the EVMs, opinion of the Technical Committee comprising Prof. S. Sampath, Prof. P.V. Indiresan and Dr. C Rao Kasarbada was obtained. The Committee examined the machines minutely from all technical angles and unanimously recommended their use in elections.

10. What are the features of Control Unit?

The Control Unit is the main unit which stores all data and controls the functioning of EVM. The program which controls the functioning of the control unit is burnt into a micro chip on a "one time programmable basis". Once burnt it cannot be read, copied out or altered. The EVMs use dynamic coding to enhance security of data transmitted from ballot unit to control unit. The new EVMs have also got real time clock and date-time stamping facility which enables them to record the exact time and date whenever a key is pressed. After the voting is completed and the close button is pressed, the machine does not accept any data or record any vote. Through the press of "total" button, the control unit can display the number of votes recorded till that time which can be cross checked with the register of voters in Form 17-A. The display system of the control unit shows the total number of votes polled in a polling station and the candidate-wise votes polled in the machine when the 'result' button is pressed by the counting staff in the presence of counting agents at the counting centre. The control unit can also detect any physical tampering made with the connecting cable and indicate the same in the display unit.

11. How the EVMs can be used in the areas where there is no electricity?

The EVM does not depend on electricity. It runs on alkaline batteries.

12. What is the maximum number of votes which can be cast in the EVM?

An EVM can record a maximum of 3840 votes which far exceeds the number of voters(usually less than 1400) assigned to a polling station.

13. In some elections large number of candidates contest. What is the maximum number of candidates which EVM can cater to?

Elections can be conducted through EVMs when the maximum number of candidates does not exceed 64.

14. What will happen if the number of contesting candidate goes beyond 64?

In such cases poll has to be conducted through conventional method of ballot papers/boxes.

15. How an illiterate voter, will know the steps to vote by using EVM at the polling station? Whose help should he take?

The Presiding Officer will have a card-board replica of the ballot unit with him. Through this he will demonstrate you how to vote through the EVM. He will, however, not be allowed to enter the polling chamber, where the actual ballot unit is kept.

16. Can anybody tamper with the EVMs?

Utmost care has been taken to make the EVM tamper proof. The programming of the microprocessor chip used in EVMs is burnt into the chip. The fused program can neither be altered nor overwritten. Any attempt to burn additional or substitute code on the chip would destroy its existing program and render it unusable/useless. As an additional precautionary measure, the machines prepared for a poll are physically sealed in the presence of candidates or their agents and kept in secure strong rooms guarded by Central Police Force which can also be watched by the representatives of the candidates. The storage places for these pre-poll or polled EVMs can be accessed only by following a stringent procedure set by the Commission ensuring complete transparency.

17. Whether EVM can be pre-programmed by anybody to favour any party or candidate?

In order to programme a substituted chip to transfer votes preferentially to a particular candidate, it would be necessary for the program to identify the serial number of the favoured candidate. Since the order in which the candidates appear on the reference ballot paper depends upon the nominations filed and found valid, it cannot be predicted in advance before the list of contesting candidates is actually drawn up.

18. What are the procedures ECI follows to ensure transparency and to prove that EVM is not manipulated by anybody?

The Commission has set up stringent procedures at various stages to ensure the security of the machines. The machines are manufactured only by two public sector undertakings conforming to the specifications prescribed by the Commission in consultation with the Technical Committee comprising of renowned professionals. The machines are checked only by the engineers of the two PSUs before each election. These are generally stored in Strong rooms in district headquarters where the entry is restricted. A person is allowed inside the store only after making necessary entries in the Log Book indicating the date and time of entry alongwith purpose for doing so. Once the machines are prepared for poll by the Returning Officer affixing ballot papers, they are taken to the strong room in the presence of the Election Observer, candidates or their agents and kept under double lock on which the candidates/agents can put their seals. The whole process is also videographed. The polled EVMs are stored in strong rooms following similar procedures and are guarded by the security forces in a three

tier cordon. The candidates or their agents are also allowed to keep an watch on the strong room from a visible distance.

19. What is new procedure called “EVM randomization”, can I know why this is being done?

Despite the EVMs being tamper proof, further precautions are taken by way of a two stage randomization process for the EVMs to be used in an election. This is done to make sure that nobody comes to know beforehand to which constituency/ polling station a specific EVM will be used. For this purpose, serial numbers of all the EVMs to be used under the jurisdiction of a District Election Officer are listed. The EVMs which are to be used in a particular constituency is then randomly selected through a computerized process which is known as first level randomization. Another randomization called second level randomization is done by the Returning Officer afterwards to determine which specific EVM will be used at a particular polling station of that constituency.

20. Suppose on the poll day an EVM develops problem, in that case what is the remedy available?

The defective EVM is immediately replaced by a new one by the Sector Officer who constantly moves with spare polling materials in the area allotted to him covering a few polling stations.

21. What is a procedure followed to seal the EVM? Why this is being done? How this is being done?

Physical sealing of different segments of an EVM is done to prevent access to the buttons controlling various process of the poll. This is done in several stages. Sealing of ballot screen of the ballot unit and the candidate set section of the control unit are done under the supervision of Returning Officer in the presence of the candidates or their agents to prevent tampering with the alignment of the ballot paper and making unwanted changes in the candidate buttons that are actually required for a particular poll. Similarly, if the result section is not sealed, any one can see the result of a particular polling station before it is taken up for counting at the counting center on the specified date. The candidates or their agents are invited by the election authorities to put their signatures on the tags/paper seals along with the seals of the Returning/Presiding Officers.

22. After poll, where the EVMs are kept till counting?

The polled EVMs are generally stored in a secure storage centre in the constituency or a nearby place on which the candidates or their representatives can keep an watch. Mostly it is the same place where the counting is done.

23. How the votes are counted in EVM?

In the Counting Centre, the EVMs are kept on a number of counting tables whose number does not normally exceed 14. Seating arrangements are made for the counting agents in such a way that they can clearly watch the EVM and its display. When the result button of an EVM is pressed, its display segment indicates the total number of votes polled in a particular polling station and then shows the votes polled by each candidate in a serial order. Besides the counting staff, these are noted by the counting agents also. At the end of each round, the result of that round and the progressive total is announced. The result is compiled by summing up the round wise totals.

24. In our country electoral malpractices such as booth capturing etc. are reported here and there. Whether EVMs are helpful in preventing booth capturing?

There is no way to prevent booth capturing as such if the EVM itself is snatched away by the booth capturers. However, the machine can not register more than 5 votes in a minute or 300 votes in an hour whereas a ballot box could be stuffed with any number of ballot papers. Further, on the sight of the booth- capturers, the Presiding Officer can stop the polling by pressing the “Close” button in the Control unit.

25. Is it possible to use EVM in simultaneous election for Parliament and State Legislative Assembly?

Yes, simultaneous election for Parliamentary and State Legislative Assembly can be conducted through EVMs. Two separate EVMs –one for the Parliamentary election and the other for the Assembly election are used in such a situation.

26. How long the Control Unit stores the result in its memory?

The result is stored permanently in the memory chip of the EVM till it is intentionally cleared for readying the machine for subsequent elections. Removal of batteries from the machine does not have any effect on its memory.

27. At the time of counting , suppose a display in EVM is not showing the result in such case how the result can be verified?

The manufacturers of the EVMs have developed an “Auxiliary Display Unit” (ADU). With the use of this ADU, results can be retrieved most of the times when there is a failure of the original display on the Control unit.

28. Is it possible to vote more than once by pressing the button again and again?

No. Once a candidate button is pressed, it will record the vote in favour of the candidate shown against the button. The machine will not record any more vote until the ballot button of the Control Unit is pressed again by the Presiding/Polling Officer.

29. Earlier there was a system of mixing ballot papers so that the voting preference in a particular polling station is not known. Now the EVMs are counted one by one and the voting preference of a particular polling station become known to everybody – Can anything be done about it?

A device called ‘Totaliser’ has been developed by the manufacturers of the EVMs which can, at a time, connected with several control units. It will then indicate the total number of votes polled in each polling station where these EVMs had been used as well as the grand total of votes polled in those polling stations. The number of votes polled by each candidate will, however, be shown for the whole group of polling stations to which the EVMs were used and not for any individual polling station making it impossible to know the pattern of voting in a particular polling station.

30. What the world thinks of Indian EVMs?

The Indian EVM is a far simpler machine than its counterpart in the USA. Unlike in USA, our EVM is a stand alone machine which can not be connected to any network and controlled through network or remote. Its original programme contained in a burnt chip can not be altered, making it tamper proof.

31. How can a blind voter vote by using EVM?

Like all physically challenged or infirm voters, a blind voter is permitted to take a companion with him to help him cast the vote. The companion can accompany him upto the polling compartment. In addition to this, many of the EVMs have 'Braille' signage on the ballot units indicating the serial number of the candidate. A dummy ballot paper indicating the names and the serial numbers of the contesting candidates is provided to the Presiding Officers of selected polling stations. The Presiding Officer of such polling station will give the dummy ballot paper to the blind voter on his request. The voter will then note the serial number of the candidate of his choice and return the dummy ballot paper to the Presiding Officer before proceeding to the polling compartment. Now, with the help of "Braille" signage he will be able to locate the particular serial number of the candidate on the ballot unit on his own and be able to cast his vote independently.

- General Elections, 2004 was conducted totally by using 10.75 lacs EVMs in the country.
- 7700 Metric Ton of paper used for printing of ballot paper in General Elections, 1999.
- 8800 Metric Ton of paper used for printing of ballot paper in General Elections, 1996.