

## TECHNOLOGICAL SAFEGUARDS:

- EVM used by the Commission is a **stand-alone non-networked, one time-programmable (OTP) machine**, which is neither computer controlled, nor connected to the internet or any network; and hence, **cannot be 'hacked'**.
- The machine is electronically protected to prevent any tampering/ manipulation. The programme (software) used in these machines is burnt into a One Time Programmable (OTP)/Masked chip so that it cannot be altered or tampered with.
- The software of EVMs is developed in-house by a select group of Engineers in BEL (PSU under Defence Ministry) and ECIL (PSU under Department of Atomic Energy) independently from each other.
- The software is so designed that it allows a voter to cast the vote only once. The vote can be recorded by a voter from the ballot unit only after the Presiding Officer enables the ballot on the Control Unit. The machine does not receive any signal from outside at any time. The next vote can be recorded only after the Presiding Officer enables the ballot on the Control Unit. In between, the machine becomes dead to any signal from outside (except from the Control Unit).
- Since 2001, the issue of possible tampering of EVM has been raised before various High Courts, the High Courts after going through various aspects of the technological soundness and the administrative measures involved in the EVMs, have held that the EVMs are credible, reliable and totally tamperproof. In some of these cases, even the Supreme Court has dismissed appeals filed by some petitioners against High Court orders. Hon'ble Karnataka High Court has held that *"This invention is undoubtedly a great achievement in the electronic and computer technology and a national pride"*.

## UNIQUENESS OF INDIAN EVMs

Indian EVMs are truly unique compared to the e-voting machines used in other parts of the world for the following reasons:

- ECI-EVMs are stand-alone non-networked machines
- The ECI-EVMs are manufactured in two PSUs namely ECIL and BEL, unlike machines used in other countries, which are manufactured entirely by private entities.
- In ECI EVMs, data is stored internally and is not transferable by any device, unlike other countries where voting data recorded in the DRM is transferred by means of CD, etc.
- Every EVM has a unique number attached to it, which is recorded in the Election Commission's database through EVM Tracking Software. This number of the EVM can always be cross-checked against the database.

## ADVANTAGES OF EVMs

- EVMs reduce the time in casting votes.
- EVMs also reduce the time taken to count votes and declare results.
- EVMs are developed with high security features and cannot be tampered or hacked.
- EVMs are powered by batteries and do not rely on electricity and ensure uninterrupted voting.
- EVMs register only the first button pressed and eliminate the possibility of casting 'Invalid Votes'.
- EVMs also feature NOTA option for voters to cast their vote and make their disapproval for any of the candidates known.

*"This invention is undoubtedly a great achievement in the electronic and computer technology and a national pride".*

~Hon'ble Karnataka High Court

## WHAT IS VVPAT?

- Voter Verifiable Paper Audit Trail (VVPAT) machines is an independent system, attached with the Electronic Voting Machines, that allows the voters to verify that their votes are cast as intended.
- When a vote is cast, the elector shall be able to view through transparent window of the VVPAT, the printed paper slip showing the serial no, name and the symbol of the candidate of his choice.
- The slip remains exposed through the window for 7 seconds, after which it automatically gets cut and falls in the sealed drop box of the VVPAT.
- Since 2013 to 12 May 2017, VVPATs were used in selected constituencies in every Legislative and Parliamentary election.
- Since May 2017, VVPATs are being used at 100% polling stations in every General/Bye-election to Lok Sabha and State Legislative Assembly.
- VVPATs are the second line of verification and are particularly useful in the time when allegations around Electronic Voting Machines' tampering crop up.
- VVPAT system gives instant feedback to the voter showing that the vote polled has in fact been allotted against the candidate chosen.
- The machines can be accessed, though, by the polling officials and not by the voter.

Following the direction of the Hon'ble Supreme Court, the ECI has introduced the technology of VVPAT in order to ensure public examinability. The Commission is committed to implementing VVPATs nation-wide by 2019 to ensure 100% voter verifiability and auditability of every vote cast.

