Supreme Court Judgement on EVMs

Why in news?

Recently Supreme Court rejected the plea for 100% verification of Voter Verifiable Paper Audit Trail (VVPAT) slips against the Electronic Voting Machine (EVM) count

What are the features of Electronic Voting Machine?

- **Aim-** To make the voting process easier, faster, and more accurate.
- **About-** EVM is an electronic device for recording votes that consists of two Units

Control Unit	Balloting Unit
• It is kept with the *Presiding Officer* or a *Polling Officer*. • The Polling Officer is in charge of the Control Unit presses the Ballot button on the Control Unit to release the ballot for the voter. • It can store the memory in its unit for 10 years or even more.	• It is placed inside the *voting compartment*, one balloting unit is designed for 16 candidates. • It is connected to Control Unit through 5 metre cable. • Once the ballot is released it enables the voter to cast their vote by pressing the 'Candidate' button (*blue button*) on the Balloting Unit against the candidate and symbol of their choice.

- **Manufacturing-** It is designed by the Election Commission in collaboration with two Public Sector undertakings -
  - Bharat Electronics Limited, Bangalore (Ministry of Defence) and the
  - Electronics Corporation of India Limited, Hyderabad (Department of Atomic Energy).
- **Power-** EVMs operate on a 7.5-volt alkaline power pack, enabling their use *without electricity*.
- **Capacity-** Old EVMs can record up to 3840 votes, while newer models (post-2006) have a capacity of *2000 votes*
- **Trail of EVM**- In 1982 Electronic Voting Machine was first trailed in the Assembly constituency of ***Paravur in Kerala***.
- **Widespread of EVM**- In 2001 EVMs are fully deployed across all booths during the Assembly elections in Tamil Nadu, Kerala, Puducherry, and West Bengal.

By 2004 Lok Sabha elections, EVMs were used across all 543 constituencies.

- **ETPBS-** Electronically Transmitted Post Ballot System is introduced in 2016 allowing

service voters like members of the armed forces and government employees on election duty remotely.

- **NOTA-** In 2013, India became the 14th country to institute negative voting through None of the Above (NOTA). However, it is not a "right to reject".
- **VVPAT**- The *Conduct of Elections Rules, 1961* were amended in 2013 to allow for a printer with a drop box to be attached to the EVM.

VVPAT was first used in by-election for Noksen assembly seat in Nagaland.

- **100% VVPAT backing**- The 2019 general elections saw EVMs backed with 100% VVPAT across all constituencies, ensuring an additional layer of verification for voters.
- **VVPAT counting**-As per Indian Institute of Statistics Election Commission in 2018 mandated counting of VVPAT slips of one randomly selected polling station per Assembly constituency.

In 2019 Supreme Court mandates VVPAT counting for five polling stations per Assembly seat.

What are the benefits of Electronic Voting Machine?

- **Booth capturing prevention**-EVMs have curtailed booth capturing by limiting the vote casting rate, making it more time-consuming to cast false votes.
- **Elimination of invalid votes**- The issue of invalid votes, which was a significant problem with paper ballots, has been addressed by EVMs.
- **Environmental benefits**- With a large electorate, EVMs are eco-friendly as they reduce paper consumption.
- **Administrative convenience**- EVMs provide ease for polling officers on election day and enable faster, error-free counting.
- **Random allocation**- EVMs are randomly allocated to booths before polls.
- **Mock polls**- They are conducted to demonstrate the accuracy of EVMs and VVPAT before actual polling begins.
- **Transparency**- Serial numbers of EVMs and the total votes polled are shared with candidates' agents for verification during counting.
- **Security**- The Election Commission of India (ECI) has repeatedly assured that EVMs are standalone devices without external connectivity, thus mitigating the risk of hacking.

What are the challenges with EVMs?

- **Verifiability-** The current practice of matching EVM counts with VVPAT slips in five booths per assembly constituency/segment has been questioned for not being scientifically grounded, which could potentially overlook defective EVMs.
- **Susceptibility to hacking-** Various political parties and civil society activists have

raised doubts about the security of EVMs, alleging that they are susceptible to hacking due to their electronic nature.

- **Voter privacy-** The current process allows for the identification of booth-wise polling behaviour by various political parties, they could potentially lead to profiling and intimidation of voters.
- **Lack of transparency**- The inner workings of these machines are not transparent enough, making it difficult to verify the accuracy of the voting process.
- **Lack of accessibility-**EVM poses challenges for certain segments of the population, such as elderly voters or those with disabilities.
- **High cost**- While EVMs are meant to streamline the voting process and reduce costs in the long run, the initial investment in procuring and maintaining these machines can be significant.

What is the Supreme Court verdict on 100% counting of VVPAT slips?

- **Association of Democratic Reforms vs ECI and Anr. -** The petitioners demanded 100% verification of VVPAT slips or return to paper ballots.
- **Secure EVM**- The Supreme Court has reaffirmed the security of EVMs and VVPAT, rejecting pleas for a return to paper ballots.

Key aspect	Petitioner's demand	Supreme Court's verdict
Full cross verification	• The petitioner argued that every voter should be able to verify that their vote has been counted properly after receiving confirmation that it has been cast. • Currently, VVPAT slips are counted and matched with the EVM tally only in five randomly selected polling booths per constituency.	• The court rejected this, stating that while voters have the right to know their vote has been recorded accurately, it doesn't equate to the right of 100% counting of VVPAT slips. • The court emphasized that other measures like the seven-second display of VVPAT slips and the ability to approach the Presiding Officer in case of mismatches as per *Conduct of Election Rules, 1961* already protects voter's right adequately.
Tampering with EVMs	• As per report by the Citizens' Commission on Elections the petitioner argued there is a possibility of EVMs being tampered with or hacked. • The commission is chaired by former Supreme Court judge Justice Madan B Lokur.	• The court dismissed these concerns as unfounded, citing the unalterable nature of the microcontroller used in EVMs. • The court directed additional measures to strengthen the integrity of the election process, such as checking the microcontroller for tampering upon request and sealing Symbol Loading Units (SLUs) along with EVMs for 45 days after results are declared.

EVM-VVPAT discrepancy	• The petitioner submitted that the ECI had acknowledged instances of variance in the results captured by the EVM and VVPAT. • Example- 2019 elections in the *Mydukur Assembly seat, Andhra Pradesh* the EVM recorded 14 more votes than the VVPAT. • This was later clarified by the Returning Officer as an oversight where a mock poll had not been cleared from the EVM.	• The court held that aside from one case in Mydukur there was not a single case of mismatch or defect in the recording of votes in any EVMs that are checked. • This assertion was supported by data showing that even in 26 instances where voters reported mismatches, no actual discrepancies were found upon verification.
Giving VVPAT slip to voter	• The petitioners argue that the current system, which allows voters to view the VVPAT slip for only seven seconds, could be susceptible to manipulation. • They suggest that the machine could be programmed to not cut the slip, preventing it from being counted, and propose that the slip should instead be handed to the voter to place in a ballot box.	• The court said that the purpose of the tinted glass above the VVPAT slip is to maintain the secrecy of the vote while still allowing the voter to verify their vote for seven seconds. • The glass also serves to protect the slip from damage or tampering. • The court reasoned that giving voters physical access to the VVPAT slips could lead to potential misuse, malpractices and disputes.
Return to paper ballot	• The petitioner suggested this move, referencing countries like *Germany* that have returned to paper ballots. • They also proposed the idea of adding *barcodes* to VVPAT slips to facilitate the use of counting machines and minimize delays in vote counting.	• The court countered this suggestion by highlighting the benefits of Electronic Voting Machines (EVMs), which include preventing booth capturing, eliminating invalid votes, offering administrative convenience, and reducing the use of paper. • The court did not provide an opinion on the barcode suggestion, stating that it is a technical matter for the ECI to decide.

What lies ahead?

- The Court acknowledged some concerns raised by the petitioners which suggested for sealing of SLUs and has allowed candidates to seek verification of EVM software, including the microcontrollers, in case of doubts regarding the results.
- This represents a significant shift in the handling and scrutiny of electoral technology in India.
- However, the Court ultimately upheld the integrity of EVMs and VVPATs, rejecting the need for full cross-verification and advocating for the continued use of electronic voting systems.

Quick facts

Symbol Loading Unit

• It is a device used in the preparation of EVMs with Voter Verifiable Paper Audit Trail (VVPAT) for elections.
• **Loading candidates symbol-** Before an election, the list of contesting candidates and their symbols needs to be loaded onto the VVPAT machines through SLU a *small device* about the size of a matchbox.
• **Loading procedure**- The SLU is connected to a laptop or personal computer, where a symbol loading application is used to load a bitmap file containing the candidates' names, serial numbers, and symbols, this file is then transferred to the SLU.
• **Transferring to VVPAT**- Once the symbols are loaded onto the SLU, it is connected to the VVPAT machine. The loaded symbols are then transferred from the SLU to the VVPAT, ensuring that each VVPAT contains the correct symbols corresponding to the candidates.
• **Supervision** -The process of loading symbols onto VVPATs via SLUs is conducted under the supervision of a district election officer to maintain transparency and integrity.
• **Utility-** The SLU is used only a few days before polling in a particular seat, and after the symbols are loaded onto the VVPATs, the SLU is no longer relevant to the voting process.
• It is then handed over to the district election officer for safekeeping until the end of the election.
• **Recent directive-** The Supreme Court requires the Election Commission of India (ECI) to seal and secure SLUs for 45 days after the declaration of election results.
• **Verification-** This ensures that SLUs used in the election process can be examined along with EVMs if there are challenges to the election results.

References

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3. Indian Express- 100% cross verification on VVPAT rejected
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