



# STATUS PAPER ON ELECTRONIC VOTING MACHINE (EVM)



Election Commission of India



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## Abbreviations & Acronyms

AC	Assembly Constituency
BEL	Bharat Electronic Limited
BU	Balloting Unit
CU	Control Unit
DRM	Direct Recording Machines
ECI	Election Commission of India
ECIL	Electronics Corporation of India Limited
EMB	Election Management Body
ERC	Electoral Reforms Committee
EVM	Electronic Voting Machine
HC	High Court
IIT	Indian Institute of Technology
OTP	One Time Programmable
PC	Parliamentary Constituency
PSU	Public Sector Undertaking
SC	Supreme Court
TEC	Technical Experts Committee
VVPAT	Voter Verifiable Paper Audit Trail

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## Introduction:

- India is the largest Participatory Democracy of the world, with about 850 million registered voters. The Constitutional mandate of superintendence, direction and control of Elections to the Parliament and the State Legislative Assemblies has been conferred on the Election Commission of India.
- The Election Commission of India is an independent Constitutional entity, which has successfully conducted regular elections to the Parliament and various State Legislative Assemblies for the past 66 years in a free, fair, participative, informed and credible manner. The Commission is widely acknowledged as a “Global Gold Standard” in Election Management across the World, setting ever-higher standards of efficient and professional conduct of Elections.
- The Commission has been at the forefront of embracing, adopting and implementing the latest technological advancements in improving and fine-tuning the election processes and systems. The Commission has taken the pioneering initiative of introducing Electronic Voting Machine (EVM) for recording, storing and counting of votes across the length and breadth of the Country in a transparent, credible and secure manner, backed by appropriate legal support. The use of EVM demonstrates the Commission’s unflinching resolve to continually improve, upgrade and strengthen the Electoral Process in the country.
- The Commission has successfully used EVMs in conducting 107 General Elections to the State Legislative Assemblies and 3 Lok Sabha Elections over the last 23 years. The List of States, along with the years in which 100% EVMs were used in the Assembly Elections is placed at ANNEXURE - 1.
- 55.41 crore (554 million) voters exercised their franchise in 2014 Lok Sabha elections using EVMs.
- Since the very inception of the EVMs in 1982, as a positive electoral reform on the electoral scene in India, blames and aspersions have been cast on the EVMs from various quarters including political. Recently, after the announcement of the results of the five State Assembly Elections in March 2017, again certain allegations have been leveled against the EVMs. A group of thirteen political parties met the Commission on 10 April 2017 and expressed certain reservations about the use of EVMs.

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- It needs to be emphasized that the wide range of technical security, administrative protocols and procedural safeguards mandated by the Commission robustly ensures the integrity, non-tamperability and credibility of the EVMs. The stringent procedures and well-defined poll processes prescribed by the Commission protect the EVMs against any sort of manipulation.
  - It is also significant to highlight that the Commission is committed to the 100% coverage of VVPATs in all future elections to the Parliament and State Assembly Elections. The requisite funds for the procurement of adequate number of VVPATs and latest generation (M3) EVMs have been sanctioned by the Government and machines are expected to be manufactured and delivered by BEL and ECIL to the ECI by September 2018 as committed by the manufacturers.
  - At the present juncture, when EVMs are once again encumbered with yet another debate on its efficacy and robustness, it is imperative to hold consultations with stakeholders.

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## The Journey of EVM in India

- Voting system in India has gone through multiple changes. During the first two General Elections to the Lok Sabha in 1952 and 1957, each candidate was allotted a separate ballot box pasted with the symbol of the candidate. The names and symbols of the candidates were not printed on the ballot paper and voters had to drop a pre-printed ballot paper in the ballot box of the candidate of their choice. This system ignited fears of tampering, booth capturing, and manipulation in the minds of the various stakeholders and was soon replaced. In 1960-61, a marking system on the ballot paper was introduced during the mid-term elections to the Legislative Assemblies in Kerala and Odisha and this system continued till the 1999 Lok Sabha elections.
- Before introduction of the EVM, the ubiquitous Ballot papers were used to cast votes in the Indian Elections, with considerable success. The use of ballot papers was time consuming, prone to malpractices like booth-capturing and ballot-box stuffing, large number of invalid votes due to wrong/incorrect marking, subject to prolonged counting drills, more disputes and delayed result announcement besides being an ecologically straining and non environment friendly method.
- However, in comparison, EVM has substantial comparative and noticeable advantages.
  - i. The manner of voting by EVMs is much more simpler and voter-friendly as the voter is merely to press the button on BU for casting his votes in favour of the candidate of his choice.
  - ii. Under the EVM system, there is no invalid vote, whereas in the ballot paper system large number of ballot papers were invalidated and in some cases, the number of such invalid ballot papers was even more than the winning margin of the elected candidate.
  - iii. It is auditable, transparent, accurate, secure and helps reduce human error.
  - iv. It gives faster results in hours, which is particularly relevant in large countries like India having Constituencies of several hundred thousand voters, where counting used to take days and weeks earlier.
  - v. In addition, EVM voting saves time, energy and money, not to speak of the millions of trees it saves in the process.

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- vi. Earlier crores of ballot papers were printed requiring hundreds of tonnes of paper for printing the same and the printing of ballot papers had to be undertaken in large number of Government Presses for very long periods, involving hundreds of election officials in each constituency.
- vii. Additionally, the innovative use of advancements in modern electronics for voting in the country provides for a fulsome endorsement of the creativity, inventiveness and pioneering acumen of the Indian society at large and serves to enhance the image and prestige of the country in the international arena.
- As can be easily appreciated, the weight of cumulative comparative experience of conducting elections for over 7 decades, both with ballot papers and EVMs, and the numerous undeniable merits in the use of EVMs, render the EVMs as a preferred instrument of casting votes.
  - Quite evidently, the use of ballot papers was a traditional, anachronistic and archaic voting method. In order to overcome the aforementioned problems associated with the erstwhile practice of using ballot papers, and also to keep updated with the advances of technology, the ECI mooted the idea of EVM in 1977.
  - In 1977, Mr. S.L. Shakdhar, the then Chief Election Commissioner of ECI, during a tour in Hyderabad requested the Electronics Corporation of India (ECIL) to study the possibility of using an electronic device for conducting elections. The Electronics Corporation of India Ltd (ECIL), Hyderabad, a PSU of the Atomic Energy Ministry, was assigned the task to design and develop an electronic gadget for conducting elections. In 1979, a proto-type was developed and its operation was demonstrated by the ECI before the representatives of political parties on 6th August, 1980.
  - The Bharat Electronics Limited (BEL), Bengaluru, a Defense Ministry PSU, had also developed a “microcomputer based voting equipment, which they had used for the elections for the various unions of the company”. In January 1981, BEL approached ECI for manufacturing EVMs and on 29th July, 1981, the Commission held a meeting with the representatives of BEL, ECIL, the Ministry of Law and Chief Electoral Officers of some states regarding use of EVMs in elections.
  - On 19th May, 1982, the ECI issued directives under Article 324 of the Constitution of India for the use of EVMs and conducted elections at fifty polling stations using



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the machines in a bye-election in 70-Parur Assembly Constituency (AC) of Kerala on an experimental basis. The EVMs were further used in 10 Bye-elections across the country in 1982-83. However, due to the absence of any specific law prescribing the use of EVMs, the election was challenged in a petition (Election Petition 01 of 1982 filed by A.C. Jose) and on 5th March, 1984, the Hon'ble Supreme Court of India held that EVM cannot be used in an election unless a specific provision is made in law for its use. Consequently, the law was amended by the Parliament in December 1988 and a new Section 61A was included in the Representation of the People Act 1951, there by empowering the ECI to use EVM. The amendment came into force on 15th March, 1989. The Supreme Court upheld the Constitutional validity of Section 61A in its judgment in AIADMK versus Chief Election Commissioner and Others {(2002 UJ(1)387}.

- However, doubts and speculations regarding this new entrant in the voting system of India persisted in the political atmosphere of the country. In order to gain popular trust and affirm the integrity of the new electronic voting system, the Government of India instituted an Electoral Reforms Committee (ERC) in January 1990, consisting of representatives from several national and state-level political parties under the chairmanship of Mr. Dinesh Goswami. The ERC recommended the examination of EVM by a team of technical experts.
- Consequently, a Technical Expert Committee was formed under the chairmanship of Mr. S. Sampath , Chairman, RAC, DRDO with eminent scientists like Dr. P.V. Indiresen (IIT, Delhi), Dr. Rao C. Kasarbada (ER&DC, Trivandrum) in the list among others. The members of the TEC have always been renowned professionals of technical excellence and eminent academic/research record. In April 1990, the Expert Committee unanimously recommended the use of EVMs without any further loss of time marking it technically sound, secure and transparent. On 24th March, 1992, necessary amendments to the Conduct of Elections Rules 1961 were notified by the government vis-à-vis the use of EVMs.
- In 1998, a general consensus was reached on the use of EVMs for conducting Indian elections. In 1998, EVMs were used in 16 Legislative ACs across three states of Madhya Pradesh, Rajasthan, and Delhi. The use of EVMs further expanded in 1999 to 46 Parliamentary Constituencies (PC), and later, in February 2000, EVMs were used in 45 ACs in Haryana state assembly polls. In 2001, the state assembly elections in

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Tamil Nadu, Kerala, Puducherry, and West Bengal were completely conducted using EVMs. All state assembly elections thereafter witnessed the use of this machine. In 2004, the EVMs were used in all 543 PCs for the elections to the Lok Sabha. A new technologically advanced voting system completely replaced the erstwhile voting method of using ballot papers. Since 2000, India has witnessed 107 State Assembly Elections and 3 General Elections to the Lok Sabha (2004, 2009, and 2014) where votes were cast and recorded using the EVMs (Annexure 1)

- A number of technological changes were made in the EVMs in 2001 and the machines were further upgraded in 2006. The pre-2006 era EVMs are known as ‘M1 EVMs’, while EVMs manufactured between 2006 to 2010 are called ‘M2 EVMs’. The next generation of EVMs, produced since 2013 are known as ‘M3 EVMs’.
- The latest addition to the Indian EVM is the Voter Verifiable Paper Audit Trail (VVPAT), which was introduced in 2013, as an additional measure of transparency in the EVM-based voting system. The task of developing a VVPAT model was assigned by the Commission to the EVM manufacturers under the expert guidance of the Technical Expert Committee (TEC). A prototype was manufactured and field trials were conducted in Thiruvananthapuram (Kerala), Delhi, Cherapunjee (Meghalaya), Jaisalmer (Rajasthan) and Leh (Jammu & Kashmir) in July 2011. Following the first field trials, the Commission directed the manufacturers to re-design the VVPAT.
- A second field trial was conducted in July-August 2012 after the new model was manufactured. On 19th February, 2013, the final model was approved by the TEC. The model was demonstrated to the political parties in a meeting on 10th May, 2013. The Conduct of Elections Rules, 1961 were amended and notified on 14th August, 2013, thereby, allowing the ECI to use VVPATs along with EVMs. On 4th September, 2013, VVPATs were first used in the bye-election for 51-Noksen AC in Nagaland.
- In the meanwhile, on 8th October, 2013, in a Public Interest Litigation matter, the Hon’ble Supreme Court directed the ECI to introduce the VVPAT system in a phased manner. In 2013, the ECI had procured 20,000 VVPATs which were used in different elections. In 2017 during the recently concluded State Assembly Elections, 53500 VVPATs were used in 33 ACs in Punjab, 6 ACs in Manipur, 3 ACs in Uttarakhand, 30 ACs in Uttar Pradesh, and 40 ACs in Goa.

## EVM in Indian Elections

Date	Chronology of Events
1977	ECI mooted the idea of EVM
1979	A proto-type was developed
6th August, 1980	Demonstration by ECI before the representatives of political parties
January 1981	BEL approached ECI for manufacturing EVMs
29th July, 1981,	ECI held a meeting with the representatives of BEL, ECIL, the Ministry of Law and Chief Electoral Officers of some state
19th May, 1982	EVMs first used in 70-Parur AC in Kerala
1982-83	EVMs used in 10 Bye-elections in different parts of the Country
5th March, 1984	Supreme Court of India held that EVMs cannot be used in elections without a specific provision in law.
December 1988	A new Section 61A was included in the Representation of the People Act 1951 (The Supreme Court upheld the validity of section 61A in 2001)
15th March, 1989	The amendment came into force
January 1990	Electoral Reforms Committee (ERC) formed by Government of India
April 1990	Technical Experts Committee recommended the use of EVMs
24th March, 1992	Necessary amendments to the Conduct of Elections Rules 1961 were notified by the Government
1998	A general consensus was reached on the use of EVMs for conducting Indian elections.
1999-2004	EVMs used in different state assembly elections
2004 - 2014	EVMs used in three consecutive elections to the Lok Sabha
14th August, 2013	The Conduct of Elections Rules 1961 were further amended and notified to provide for VVPATs
4th September, 2013,	VVPAT was first used in a bye-election for 51-Noksen AC in Nagaland
8th October, 2013	Hon'ble Supreme Court directed the ECI to introduce the VVPAT system in a phased manner
2013 – present	Limited number of VVPATs introduced in phases by ECI
April 2017	Approval received for purchase of 16,15,000 VVPATs at a cost of Rs. 3173.47 Crore during 2017-18 and 2018-19. All required VVPATs will be procured by the Commission by September, 2018, subject to manufacturing exigencies.

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## Socio-Political Feedback

- The use of EVMs meant an amalgamation of technology and trust, tradition and modernity, like moving away from horse-drawn carriage to motor vehicles.
- In 1982, when EVM was first used in Kerala, a candidate Sivan Pillai challenged its use even before the election. But, Kerala High Court did not entertain his challenge and EVM was introduced as a pilot project. Interestingly, Mr. Pillai, the challenger, won the election when the result was declared. However, Mr. Pillai's opponent challenged the introduction of EVMs thereafter. The said election was re-conducted with paper ballots after Supreme Court ruling in 1984.
- However, the 1984 SC ruling against EVMs had been on a legal technicality, and not about their fundamental suitability, and the legal glitch was corrected through amendment of the Representation of the People Act 1951 in 1988.
- The introduction of EVMs for voting in India was met with certain reservations considering the large scale illiteracy and socio-economic backwardness plaguing large parts of the country. It was often asserted by the naysayers that the multitudes of poor, illiterate, down-trodden, especially in the rural areas, would face hardships and problems in accessing the EVMs and may get dis-enfranchised out of ignorance, lack of voting education or awareness. However, the concerted and focused information, education and communication programmes launched by the Commission, especially to spread awareness and familiarity with the EVMs and its commitment to reach the last elector, effectively nullified all reservations and doubts in this regard. It is heartening to see the cross-section of Indian society eagerly and positively embracing the EVMs and actively and enthusiastically participating in the electoral process by casting their votes on EVMs.
- Since the advent of EVMs on the electoral scene certain aspersions on its use have been cast from various quarters, including political parties and individuals. To meet the challenge raised against the EVMs, the ECI, as an extra-ordinary measure, threw an open challenge to all stakeholders between 3rd and 7th August, 2009 to come forward and prove if the ECI-EVMs could be tampered. None of them could prove that EVMs could be tampered.
- In 2017, after the results of the 5 State Assembly elections were declared, some political parties have again cast aspersions on the credibility of EVMs.

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## Legal Interventions and Court Cases

- Since 2001, the issue of possible tampering of EVM has been raised before various High Courts. Some of these are mentioned below:
  - (a) Madras High Court-2001
  - (b) Kerala High Court-2002
  - (c) Delhi High Court-2004
  - (d) Karnataka High Court- 2004
  - (e) Bombay High Court (Nagpur Bench)-2004
- **Analysis:** All the aforementioned High Courts after going through various aspects of the technological soundness and the administrative measures involved in the use of 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.
- In 2004, this matter was placed before the Delhi High Court by advocate Pran Nath Lekhi who had alleged that EVMs were tampered with to favour UPA in the election results. But HC found no merit in the petition. In this context, the Hon'ble Karnataka High Court held that *"This invention is undoubtedly a great achievement in the electronic and computer technology and a national pride"*. The order was delivered on a plea filed in 1999 by a defeated candidate who had challenged the role of EVM machines in Yelahanka parliamentary constituency. The court studied the safety features and examined BEL scientists and ruled that machines were tamper-proof and any attempt to doctor them cannot be kept away from the public eye.
- Both the Karnataka High Court and the Madras High Court observed that use of EVMs in election has several advantages over the system of ballot paper/ballot box election. The Hon'ble Madras High Court also categorically ruled out any question of tampering of the EVMs. The following observations made by the Madras High Court may be taken note of:

*"There is also no question of introducing any virus or bugs for the reason that the EVMs cannot be compared to personal computers. The programming in computers, as suggested, has no bearing with the EVMs. The computer would have inherent limitations having connections through Internet and by their very design, they may allow the alteration of the programme but the EVMs are independent units and the programme in EVM is entirely a different system."*

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- The Bombay High Court (Nagpur Bench) examined certain witnesses who claimed to be experts in the field of electronics and electronic gadgets. These witnesses, however, admitted before the Court that tampering of EVMs was not possible unless the persons new entire things and had free access to the machines.
  - In one of the cases, the Hon'ble High Court of Kerala in its order dated 6th February, 2002 had recorded its appreciation on the efficiency of the EVM mechanism. The judgment of the Kerala High Court in the said Election Petition was upheld by the Hon'ble Supreme Court in Civil Appeal (AIR 2003 SC 2271). It is admitted before various courts that the data or technique brought in use of EVM in India were not subject to piracy as nobody knows anything about the contents of any type or has any unauthorized or free access to EVM.
  - In Oct 2013 to bring about greater transparency the Hon'ble Supreme Court directed ECI to introduce VVPAT in phased manner.
  - Till date, 33 (thirty-three) cases have been filed in the various Courts (including various High Courts and Supreme Court) , where the issues pertaining to EVMs have been agitated. Of these, 26 (twenty six) petitions have already been rejected by the Courts and the remaining are under judicial process.

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## Indian EVM: Design and Manufacture Protocol:

- Indian EVMs and VVPATs are manufactured by Bharat Electronics Limited (PSU under Ministry of Defence, Govt. of India) and Electronics Corporation of India Limited (PSU under the Department of Atomic Energy, Govt. of India). The software of EVMs is developed in-house by a selected group of Engineers in BEL and ECIL independently from each other. This select software development group of few engineers design and develop the source code. After completion of software development, testing and evaluation of the software is carried out by another independent testing group in the PSUs as per the software requirements specifications (SRS). This ensures that the software has really been written as per the requirements laid down for its intended use only. The original source code for the EVM is stored by PSUs under controlled conditions at all times and is not accessible to anyone outside the software development group of PSUs.
- In M1 and M2 EVMs manufactured till 2010, Machine code compiled from source programme code was given to the micro controller manufacturer for writing in ONE TIME PROGRAMMABLE (OTP) micro controllers. From this machine code, the exact original source code cannot be read. For such OTP microcontrollers, the code once programmed cannot be modified and cannot be read by any means. The technological advancements permit the writing of the machine code into the chips at PSU premises, hence in M3 (post 2013) EVMs, the program is burnt into the chip at PSU premises itself. Due to absence of requisite facilities to produce micro-controllers in India these are procured from manufacturers abroad.
- Up on receipt of machine code, the micro controller manufacturer verifies against any modifications during transit and programs this code in the micro controller in the OTP area and initially provides engineering samples of programmed chip to PSUs for evaluation. These samples are then assembled into the EVM, evaluated and verified for authenticity of code and functionality at great length. Bulk production clearance by PSU is given to micro controller manufacturer only after successful completion of this verification.
- During production of EVMs in the factory, functional testing is carried out by production group as per the laid down Quality plan and performance test procedures. Samples of EVMs from production batches are regularly checked for functionality by Quality Assurance Group, which is an independent unit within the PSUs.

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- Post supply to ECI, the EVMs are kept, transported and used under strict administrative and secure conditions. When used for elections they are operated and kept in full view of stake holders and media scrutiny.
  - The EVM 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 unit from Control Unit. On press of “candidate” button by voter, the voter sees lighting of red LED near the candidate button, and a long beep is heard signifying that vote has been recorded. The CU machine is designed not to receive any signal other than that from BU. It cannot respond to any outside signal (nor 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 for the next voter. In between, the BU becomes dead to any signal from outside (except from the Control Unit). Vote stuffing is not possible due to a specially designed feature that CU cannot accept another vote in less than 12 seconds. Votes are date and time stamped, and no votes can be cast before or after the poll.
  - **Voter Verifiable Paper Audit Trail system (VVPAT)** was introduced in 2013 to provide even greater transparency to the poll process. The VVPAT is an additional unit attached to the EVM, which prints a small slip of paper that carries the symbol, name and serial number of the candidate voted by Voter, which is visible for 7 (seven) seconds in the viewing window. The voter after pressing the button on BU can view the printed slip on VVPAT through the viewing window and thus can verify that the vote is recorded for the Candidate of his/her choice. These paper slips are automatically cut and stored in a sealed compartment of VVPAT and can be used later to cross check the votes in CU as per the prescribed procedure by ECI. The printing of slip in VVPAT is an additional verification to the voter, besides glowing of LED near candidate button and the beep in EVM system. VVPATs are being introduced in phased manner. At present 53500 VVPATs are available with ECI for use in Elections. Pursuant to the approval of the Government, ECIL and BEL have committed to manufacture and supply 16,15,000 VVPAT machines required for conduct of General Elections to Lok Sabha 2019 to the Election Commission by September 2018.



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## EVM Safety and Security Features:

- **The machines are non-tamperable, both due to technological measures, and also due to strict administrative and security procedures laid out by ECI, whereby no access to EVM/VVPAT is allowed to any unauthorized person.** Hence, these are protected from any tampering/manipulation whether before the polls, or during the polls, or after the polls, in storage or transportation from manufacturer to the State/District or vice versa, or when transported from one state to another.
- **Technological safeguards that contribute to non-tamperability of EVM are the following.**
  - i. 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’.
  - ii. 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.
  - iii. The software of EVMs is developed in-house by a selected group of Engineers in BEL (Defence Ministry PSU) and ECIL (Atomic Energy Ministry’s PSU) independently from each other.
  - iv. After completion of software design, testing and evaluation of the software is carried out by an Independent Testing Group as per the software requirements specifications (SRS). This ensures that the software has really been written as per the requirements laid down for its intended use only.
  - v. After successful completion of such evaluation, machine code is given to the micro controller manufacturer for writing in the micro controllers. From this machine code, the source code cannot be read. Source code is never handed over to anyone outside the software group of PSUs.
  - vi. Micro controller manufacturer initially provides engineering samples to PSUs for evaluation. These samples are assembled into the EVM, evaluated and verified for functionality at great length. Bulk production clearance by PSU is given to micro controller manufacturer only after successful completion of this verification.

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- vii. The source code for the EVM is stored under controlled conditions at all times. Checks and balances are in place to ensure that it is accessible to authorized personnel only.
  - viii. During production in the factory, functional testing is done by production group as per the laid down Quality plan and performance test procedures.
  - ix. 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).
  - x. Samples of EVMs from production batches are regularly checked for functionality by Quality Assurance Group, which is an independent unit within the PSUs.
  - xi. Certain additional features were introduced in M2 generation of EVMs (Post-2006) such as dynamic coding between **Ballot Unit (BU) and Control Unit (CU)**, installation of real time clock, installation of full display system and date and time stamping of key-pressing in EVM.
  - xii. The Report of the Expert Committee for the Technical Evaluation of the Upgraded EVMs in 2006 has concluded that any tampering of CU by coded signals by wireless or outside or Bluetooth or WiFi is ruled out as CU does not have any radio frequency (RF) receiver and data decoder. CU accepts only specially encrypted and dynamically coded data from BU. Data from any outside source cannot be accepted by CU.
- **Administrative Procedures laid by ECI for handling of EVMS are stringent.**

The Commission has put in place an elaborate administrative system of security measures and procedural checks-and-balances aimed at prevention of any possible misuse or procedural lapses. These safeguards are implemented by ECI transparently with the active and documented involvement of Political Parties, Candidates and their Representatives at every stage, so as to build their confidence on efficacy and reliability of EVMs. All these functions and procedures are implemented through the

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District Election Officers (DEOs), Returning Officers (ROs), Assistant Returning Officers (AROs) and other officers and officials of the State Government concerned, who are on deemed deputation to the ECI and are under its superintendence, direction and control in so far as election related duties are concerned. These safeguards are:

- i. Before every election, a first level checking (FLC) is done for every EVM to be used in the election by the engineers of the manufacturers **in the presence of political parties' representatives**. The entire FLC process is carried out at the District level under the supervision of the DEO concerned. Any malfunctioning EVM i.e. EVM either not switching on or not displaying results etc., is kept separately and is not used in the election.
- ii. Manufacturers certify at the time of FLC that all components in the EVM are original. After this, the plastic cabinet of Control Unit of the EVM is sealed using a "Pink Paper Seal", **which is signed by representatives of political parties** and stored in strong rooms. After this stage, the plastic cabinet of control unit of the EVMs cannot be opened. There is no access to any component of inside of EVMs.
- iii. Mock poll with a few votes is conducted on every functioning EVM at the time of FLC. Additionally, at the time of FLC, **at least 1000 votes are cast by the representatives of political parties on each of the 5% of EVMs randomly selected by them**. A printout of the results of this mock poll as well as a sequential print out of every vote polled during the mock poll at the time of First Level Checking of EVMs are taken out for at least 5% of EVMs and shown to the representatives of political parties. Representatives of political parties are allowed to pick machines randomly for this purpose. In rest of the machines, numbers of votes polled during the mock poll are to the satisfaction of the representatives of political parties. **Representatives of political parties are allowed to do mock poll themselves**. It is all documented by DEOs/ROs.
- iv. Subsequently, stored EVMs are **randomized by computer software twice, once for allocation of machines to assembly constituencies and second to polling stations in the presence of candidates or their representatives before they are distributed for use in individual polling stations**. The randomization is carried out through EVM Tracking Software (ETS) by the DEO in the presence of the representatives of political parties/

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candidates and Central Observers deputed by the ECI for complete transparency. The lists of EVM containing serial number of EVM allocated to particular polling station are provided to the political parties/candidates.

- v. During the process of Candidate setting on the EVMs, Ballot Paper is fixed on the Ballot Unit and the EVMs are prepared for the number of candidates in fray in a particular constituency. It must be noted here that the arrangement of names in the ballot paper, and hence the Ballot Unit, is in alphabetical order, first for the National & State Recognized parties, followed by other State Registered Parties, and then by Independents. Thus, the sequence in which the candidates appear on the Ballot Unit is contingent on the names of the candidates and their party affiliation and cannot be ascertained beforehand. This arrangement of sequencing names of candidates in ballot paper effectively precludes the possibility of any pre-determined manipulation of software for rigging the votes. **Hence, the serial number of the candidates of any particular political party will vary in each constituency and cannot be determined beforehand thereby ruling out any possibility of manipulation.**
- vi. Once the **candidate setting** is done, the Ballot Unit of the EVM is also sealed with thread/Pink Paper seals so that nobody has access to the inside of the Ballot Unit too. These Pink seals also bear signatures of representatives of political parties/candidate.
- vii. During the time of EVM Preparation and Candidate Setting, a mock poll is again conducted on each EVM by the RO and his designated officers in the presence of the candidate or his agents for complete transparency. Mock poll on each of the 5% randomly picked EVMs is then also done with 1000 votes. A printout of the results of mock poll as well as a sequential print out of every vote polled during the mock poll at the time of Preparation of EVMs and candidate setting are also taken out for at least 5% of EVMs and **shown to the representatives of political parties/candidates. Representatives of political parties/candidates are allowed to pick machines randomly for this purpose.**
- viii. On the poll day, a mock poll by casting at least 50 votes is conducted at every polling station by the Presiding Officer **in the presence of the representatives of the candidates/polling agents with their signature and a mock-poll certificate to that effect is obtained from every Presiding Officer.**

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- ix. After the mock poll is over, another thread seal and green paper seals are put on the Control Unit to block access to all buttons on the CU, except those, which are used for the conduct of poll. **These paper seals and thread seals are allowed to be signed by the polling agents.** After the poll is over, the Presiding officer presses the “Close” button on the CU in the presence of polling agents. Thereafter, no votes can be polled in the EVM.
  - x. After this, the entire EVM is sealed. Candidates and their agents are allowed to put their signatures on the seals, which they can check for the intactness of the seal before counting. Candidates/representatives travel behind vehicles carrying EVMs from polling stations to counting storage rooms.
  - xi. In addition to this, the strong rooms where EVMs are stored, for counting are also sealed and secured fully by Central Armed Police Force (CAPF) guards round-the-clock. The **candidates and their representatives are allowed to put their own seals** on the strong rooms. They are also allowed to keep a watch round the clock on the strong room. Security forces are deployed in three layers around storage rooms with Central Armed Police Forces (CAPF) guarding the inner ring.
  - xii. FLC, Preparation of EVMs before poll, mock poll, etc., are mandatorily conducted in the presence of the representatives of candidates or political parties and duly documented.
  - xiii. Coupled with randomization of EVMs, the polling officials deputed to the Polling Stations are also randomized through a 3 stage randomization process.

- **Storage and Transportation Protocols:**

Election Commission of India ensures the storage and transportation of EVMs/VVPATs remain under the strict control of ECI at all times through the following procedures and instructions:

**A. DURING NON-ELECTION PERIOD:**

[Non-election period means, after passage of the Election Petition (EP) period (i.e. 45-days from the date of declaration of the result of the last election) and upto the announcement of next election in the constituency.]

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**Physical Verification of EVMs:** During non-election period, 100% physical verification of EVMs is carried out by the District Election Officers (DEOs) annually. For this purpose, the Commission issues a direction for opening of EVM-warehouses. On receiving direction from the Commission, the DEOs take the following course of action:-

- a) CEO/DEO shall ensure that EVM-warehouses, in which EVMs pertaining to any election petition or court cases are stored, shall not be opened for the purpose of physical verification of EVMs.
- b) DEO shall nominate an Election authority for the purpose of opening of EVM-warehouse [except EVM-warehouse mentioned at (a) above] and for conducting physical verification of EVMs.
- c) National and State recognized political parties shall be informed in writing, at least 24 hours in advance, about the date and time of opening and closure of EVM warehouse. Their authorized representatives shall be allowed to remain present at the time of opening and closure of the warehouse. A report shall be prepared in this regard and signature of the authorized representatives of political parties shall also be taken on the report.

### **Storage of EVMs**

- i. EVM should be stored in Treasury, wherever possible.
- ii. Where not stored in the Treasury, EVMs must be stored in a separate warehouse where nothing other than EVM is kept.
- iii. Normally the EVMs should be stored at District Head Quarters.
- iv. However, if it is not possible to store the EVMs at District HQs, then EVM storage warehouse should not be at a place below Tehsil headquarters.
- v. No EVM shall be kept outside the EVM warehouse (i.e. all the EVMs should be kept in EVM warehouse and not at any other place) for any purpose without specific approval of the Commission
- vi. EVM storage warehouse must not have more than one (1) entry point. If there are any other doors or windows in the warehouse, they should be sealed using brick-masonry or concrete.

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- vii. Entry of EVM storage warehouse must be secured by a double lock system, which should be held jointly by two separate officers, to be nominated by the DEO.
  
  - viii. Warehouse must be free from dampness, pests, rodents etc. Proper fire-fighting arrangement must be made available. Warehouse should be free from flood/water logging risk/cracks/leakage/broken window etc. To provide an inlet/outlet for air-circulation to avoid foul smell in strong rooms, exhaust fan may be installed, subject to the following conditions:-
    - a) Exhaust fan shall be installed on the front side of the strong room, where security guards are posted and not on the rear side;
    - b) Exhaust fan shall be installed at the highest point feasible, below the roof;
    - c) A strong iron grill shall be installed at the vent/passage where exhaust fan will be installed.
    - d) EVMs must be kept in a safe manner.
  
  - ix. Adequate security arrangement must be made at warehouse by deputing police/security guard round the clock.

**Movement of EVMs:** During non-election period, EVMs shall not be moved in or out of the EVM warehouse without specific approval of the Commission. In case of intra or inter State shifting of EVMs, on the direction of the Commission, the following shall be strictly followed:

- i. The CEO will communicate the direction of the Commission on shifting of EVMs to the DEO concerned.
  
- ii. DEO(s) will issue written order to the officer in-charge for opening of EVM-warehouse to shift the required number of EVMs.
  
- iii. On receiving the written order of the DEO, the nominated Officer shall identify the EVMs to be moved out and make an entry of the details of such EVMs in the Master Stock Register/Movement Register and shall take a written acknowledgement from the officer, who is receiving the EVM, as proof of having received the EVMs.

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### **Protocol for Repairs:**

EVMS found defective during the poll period or non-poll period and requiring electronic repairs are sent to the manufacturers BEL and ECIL for repairs and are tracked under ETS. The repaired EVMS are allocated by the Commission once the report of repair is received from the manufacturer.

### **EVM Tracking Software (ETS):**

The Commission has introduced an ETS as a modern inventory management system where the identity and physical presence of all EVMS/VVPATs is tracked on real time basis by the Election Commission of India and any movement of these machines ordered by ECI has to mandatorily be through this system.

## **B. DURING ELECTION PERIOD:**

**Physical Verification of EVMS:** If there is a general election during the year, the DEO shall carry out 100% physical verification of EVMS during the First Level Checking of the EVMS and send the report to the Commission through Chief Electoral Officer in the prescribed format.

### **Storage of EVMS**

**Pre-Poll Storage:** After FLC and first randomization of EVMS, EVMS shall be handed over to the Returning Officer/Assistant Returning Officer concerned. The Returning Officers shall follow the following guidelines:-

- i) RO/ARO shall store the EVMS, allocated for his constituency, in a strong room in the presence of representatives of National/State Level Political Parties, under videography. EVMS meant for training and awareness of voters shall be kept in a separate strong room so that strong room having EVMS (including reserve EVMS) meant for poll need not be opened before preparation of EVMS. Reserve EVMS are those EVMS which are used to replace a malfunctioning/defective EVM on the poll day. The Reserve EVMS are duly prepared with Candidate setting and ballot paper fixing like other EVMS earmarked for polls and are subjected to the same standards of security and storage protocols.
- ii) Thereafter, RO shall open the strong room having EVMS (including reserve EVMS) meant for poll at the time of preparation of EVMS (candidate setting) in the presence of candidates/their representatives, under videography.



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- iii) After preparation of EVMs at RO level, EVMs including reserve EVMs shall again be kept in strong room in the presence of candidates/their representatives, under videography.
  - iv) Thereafter, RO shall open the strong room having EVMs (including reserve EVMs) on the day of dispersal of polling parties in the presence of candidates/their representatives, under videography.
  - v) After completion of poll on the Polling Day, the polled EVMs shall be escorted back to the strong room for storing in double lock system in the presence of candidates/their representatives, under videography.
- **Procedure to be followed for storing polled EVMs in strong room:**
    - (i) All Presiding Officers or the Collecting Parties should deposit the voting machines and election papers and materials at the storage centres without any avoidable delay. Any officer who defaults in this respect will make himself liable to disciplinary action.
    - (ii) Returning Officer may earmark inside the storage room or building, specified parts of the floor space in the form of squares in advance for stacking the voting machines received from particular polling stations. The arrangement for this should follow the serial number of polling stations.
    - (iii) All Balloting unit(s) and control unit received from one polling station must invariably be kept together at one place on the same square. The control unit should be kept on top of the Balloting unit(s). One copy of the Part I of Form-17 C, as filled by the concerned Presiding Officer of each polling station, should be kept on top of the control unit pertaining to the polling station. Sealed envelope containing the declarations made by the Presiding Officers before the start of the poll and at the end of the poll should also be kept in the strong room with polled EVMs. The duplicate copy of the account of votes recorded and the paper seal account should be kept under your safe custody along with the Presiding Officers Diary and other records like Register of Voters(17A), reports of Sector/Zonal magistrates, Additional inputs provided by the Presiding Officer (refer ECI instruction in this regard) etc. Under no circumstance, these papers/records should be put in strong room where polled EVMs are kept.

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- (iv) Sufficient space should be left between rows of voting machines as they are being stacked so that other machines received subsequently out of turn (from the point of view of serial numbers of the polling stations) may be kept at their appropriate allotted space without the necessity of having to shift any of the voting machines received and stacked in earlier point of time.
  - (v) If any of the contesting candidates so desires, he may be permitted to post an agent to keep watch at the place where the voting machines are stored pending the counting and allow him to affix his own seals to the doors and windows of the building in which voting machines have been stored in addition to the seals that may be affixed by you. It should also be ensured that immediately after all the voting machines have been received and stored, the room is locked forthwith. Thereafter, no one is allowed to go in until the morning of the day fixed for counting. If during this interval, for some unavoidable reason, the room has to be opened you should send for the candidates or their authorized representatives by giving them intimation in writing and open the room in their presence and immediately after the purpose for which the room is opened is over, this room should be closed and sealed and the candidates or their representatives should again be allowed to put their seal on the door lock and windows.
  - (vi) Whenever it is necessary to open the room in which the voting machines are stored, proper entries should be made in the logbook giving details of the persons entering the room, the purpose of such entry, time of entry, time of exit, signature of the guards, etc.

These instructions will also apply mutatis mutandis to the storage of the voting machines during the interval between the original count and the recount, if any.

**Post-Poll Storage:** The following instructions shall be strictly followed for the security and safety of strong rooms where the polled EVMs are kept for counting of votes –

- i The strong rooms should have double lock system. One key should be kept with District Election Officer and the other with Returning Officer of concerned assembly constituency.
- ii Three cordoned security arrangements should be made round the clock for the strong rooms having polled EVMs kept for counting of votes. The CPF should man the innermost perimeter security immediately outside the strong room and the State Armed Police should man the outermost perimeter security.

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- iii All contesting candidates should be intimated in writing to depute their representatives to keep a close watch on security arrangement of strong room. They should be allowed to stay outside the inner perimeter at a location, which enables them to view the entry points of the strong room. As far as possible, facilities such as proper shade, drinking water, etc. shall be provided to them. If there is no direct view to the entry point of the strong room, CCTV may be arranged at such location, from where they can see the strong room door on CCTV. In such a case, they may be taken periodically to the inner perimeter in batches, to see, verify and satisfy themselves regarding the security of strong room. The CCTV display of Strong Room shall be arranged on a large TV screen at the place earmarked for the representatives of Political Parties and agents of the candidates, so that they can continuously monitor the Strong Room.
  - iv A control room adjacent to the strong room SHOULD BE operative round the clock.
  - v A Gazetted officer along with a senior police officer should be put on duty round the clock for monitoring the security arrangements of strong room.
  - vi There should be sufficient arrangement of fire extinguishers near and inside the strong room.
  - vii There should be an arrangement round the clock for the security of unused EVMs also.
  - viii No one should be allowed to enter the inner perimeter without adhering the following protocols:-
    - a) The log book shall be maintained by the CPF in which entry should be made about date, time, duration and name(s) of person(s) crossing the second security ring i.e. the middle perimeter. This includes visits by the Observers or DEOs or SPs or candidates or their agents or any other person.
    - b) Video cameras should be provided to the CPF contingent to record all visits made by such visitors.
  - ix It should be ensured that there is uninterrupted power supply at the strong room locations during the entire period wherein EVMs are stored. CEO may address the Chairman of Electricity Board concerned separately regarding

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this. Local Electricity Board officials should be asked to ensure the same. Contingency arrangement of stand-by generators should be made to ensure uninterrupted power supply.

- x The phone nos. of CEO, Addl. CEOs, DEC in-charge in the ECI and the DEO/SP/COP/ROs concerned should be given to the candidates, who may provide the same to their representatives, keeping vigil at the strong room location(s). The candidates may advise their representatives to contact the officials, in case of any emergency.
- xi All the entry points (doors etc.) of strong rooms should be under constant videography using the web-cams and laptops available. If there are other doors of the strong room, they should also be covered by the web-cams/ videography.
- xii Returning Officers should visit the storage campus (upto the inner perimeter only) every day in the morning and evening and check the log book and videography and send a report to the DEO on the status every day. In case of strong rooms located in the district headquarters, the DEO should do the same. Where the strong rooms are situated outside the District Headquarters, DEO should visit the same as frequently as possible and at least once in 3 to 4 days.
- xiii No vehicle, including that of any official or ministers or any other political functionary, should be allowed inside the secured campus where the EVMs are stored. Alighting point for the vehicles should be marked clearly ahead of the outer security perimeter itself beyond it, it should be a pedestrian zone only.
- xiv DEOs and SPs shall be personally responsible for security of strong room within the district and meticulous implementation of the protocol. The copy of this Manual should be made available to all candidates, DEOs, ROs and CPF commandant.
- xv On the day of counting of votes, the strong room shall be opened in the presence of candidates/their representative, RO and Observer under videography.
- xvi After completion of counting of votes, Control Units shall be sealed as per existing instruction of the Commission. Thereafter, EVMs (Balloting Units and Control Units) shall be shifted back to Strong Room for safe storage.

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- **Under rule 94(aa) of the Conduct of Elections Rules 1961, the guidelines of the Commission on retention period of the EVMs after using in election and for using the same in the subsequent elections, are as under:**
    - A. Every Voting Machine (EVM) used in an election and kept in the custody of the District Election Officer shall be kept untouched, under the standard protocol of security, till confirmation of Election petition position from the High Court concerned after the completion of the period for filing Election Petition i.e. 45 days from the date of declaration of the result.
    - B. In the case of elections, where no election petition has been filed or no other court cases are pending, after the aforesaid period, the EVMs may be allowed to be used by the Election Commission for any future election or any other purpose like movement, physical verification of EVMs, etc.
    - C. In case of any election where election petition has been filed, the following action shall be taken:-
      - (i) If the EVMs are the subject of the election petition, the EVMs used at all Polling Stations in the constituency concerned shall continue to be kept in the safe custody of the District Election Officer, till such time the Election Petition is finally disposed of by the Courts.
      - (ii) If the EVMs are not the subject of the election petition, an application may be moved to the concerned Court for allowing the EVMs concerned to be taken out of the strong room for any future election or any other purpose like movement, physical verification of EVMs etc.
      - (iii) In case EVMs not involved in any Election Petition/Court Case are stored with the EVMs involved in Election Petition/Court Case, with the Court's permission, the following procedure shall be followed for segregating the EVMs not involved in any election petition/court case from the EVMs involved in EP/Court case:-
        - (a) A Notice informing the opening of Strong Room having EVMs involved in EP/Court Case shall be given to the petitioners/respondents of the EP/Court Case and the representatives of all political parties in writing at least 72 hours in advance, requesting them to remain present at the time of opening of strong room.

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- (b) The strong room shall be opened in the presence of the District Election Officer, Petitioners/respondents of the EP/Court case and representatives of Political Parties.
  - (c) The EVMs not involved in any EP/Court Case shall be segregated from the EVMs involved in EP/Court Case for taking out of the strong room. A list of EVMs being so taken out from the strong room shall be prepared.
  - (d) The EVMs, which are not involved in any EP/Court Case, should alone be taken out of the Strong room.
  - (e) The entire process shall be videographed.
  - (f) A copy of the list of EVMs being taken out from the strong room and copy of videography shall be given to the petitioner/respondent of the EP/court case and acknowledgment taken.
- D. If any other Court Case is pending, like, booth capturing, etc., in which any EVM is involved, the EVM concerned or the EVM(s) used at such Polling Station(s) concerned may also be kept till the final disposal of the said case.
- E. After the final disposal of the election petitions or other court cases, as the case may be, referred to above, the EVMs can be used for subsequent elections.

**Thus, the technological security features along with administrative safeguards defined by ECI, together make EVMs non-tamperable, leaving nothing to chance, whether in manufacturing, storage, transportation or during use in elections. While design features like using OTP chips, technical safeguards like non – connectivity of EVMs with computers, internet, wireless or wired for any unwanted communication, and numerous internal precautions like encoding to protect data integrity, the administrative safeguards rule out any possibility of tampering by offering transparency via 24x7 scrutiny by party representatives and their participation in sealing and signing important spaces during election.**

**In this way the Indian EVM used by ECI is unique in the world and non-tamperable under the control and custody of ECI.**

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## Technical Experts Committee (TEC)

- **Composition of First Technical Expert Committee on EVMs**

- Central Government appointed the Electoral Reforms Committee in January, 1990 (Goswami Committee) consisting of representative of several recognized National and State Parties.
- The Electoral Reforms Committee felt that the machines should be tested by technical experts with a view to removing any doubts or misapprehensions in the minds of the public with regard to credibility of the working of the machines and desired that a clearance from the technical experts to the effect that doubts and misapprehension entertained about the credibility of the machines were not well founded should be obtained.
- An Expert Committee for the evaluation of the electronic voting machines was constituted under the chairmanship of Professor S. Sampath, Chairman Technical Advisory Committee, Defence Research & Development Organization (DRDO), Ministry of Defence, Professor P.V. Indiresan of the IIT Delhi and Dr. Rao C. Kasarabada, Director, Electronic Research & Development Centre (ERDC), Trivandrum.
- The Committee, after a review of the material presented to it, technical presentation by the manufacturers, meeting election administrators and technical experts and also detailed laboratory tests, came to the conclusion that the electronic voting machine is a secure system. The expert committee, therefore, unanimously recommended, in April, 1990, the use of the electronic voting machines without further loss of time.

- **Composition of Second Technical Expert Committee**

- The Commission constituted the Second Technical Expert Committee in December, 2005 comprising Prof. P.V. Indiresan, Prof. D.T. Shahani of IIT Delhi and Prof. A.K. Agarwala of IIT Delhi to get the upgraded EVMs (Post 2006 EVMs) evaluated before finally accepting these machines for actual use in elections.

- **Expansion of Technical Expert Committee**

In November, 2010, the Commission expanded its Technical Expert Committee by including two more experts, namely, Prof D.K. Sharma from Department of Electrical

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Engineering, IIT Bombay and Prof. Rajat Moona from Department of Computer Science and Engineering, IIT of Kanpur (now, Director IIT Bhilai)

The current composition of TEC is as below:

1. Prof. D.T. Shahani of IIT Delhi
  2. Prof Rajat Moona, Director IIT Bhilai
  3. Prof Dinesh Sharma of IIT Bombay
  4. Prof. A.K. Agarwala of IIT Delhi
- The members of the TEC are eminent professionals and renowned specialists in their respective areas of expertise. The members of TEC have an illustrious academic record with proven technical excellence with numerous creditable and pioneering achievements to their credit. The fact that they hail from different Centres of Excellence in public domain, further adds to their calibre, competence and credibility. The honorary contribution made by the TEC towards the design and development of EVMs/VVPATs has also been recognized by the Hon'ble President of India.

- **Role of Technical Expert Committee on EVMs:**

ECI has maintained an independent Technical Expert Committee to help evaluate specific technical features, designs and performance improvement of EVMs.

The role of TEC has been to:

- i. Give technical advice to build specifications and design of newer versions of EVMs/VVPATs so that they incorporate latest Technology both in Hardware and Software Design and Improving Robustness against Tampering
  - ii. Examine design proposals of manufacturers on EVMs and offer recommendations for improvement
  - iii. Mentor designs process wherever asked.
  - iv. Examine concerns raised on EVMs tamperability.
  - v. Any other advice that Commission may seek or any other technical work that the Commission may entrust from time to time.
- The Commission holds regular intensive and extensive meetings with the TEC and reviews the design, technical specifications and related issues of the EVMs/VVPATs or any other technical matter emerging from time to time.



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## Evolution & Incorporation of Technology in EVMs:

- EVMs being electronic machines, are based on a fast evolving technology, both in software and hardware. With use of EVMs in Polls, many useful suggestions have come from public and political parties, and ECI has responded by incorporating newer features with every version of EVM produced. Also, from time to time, contemporary software practices as matured over time, contemporary components as improved over time and contemporary security practices were taken into account to ensure that EVMs of each version had the best of all practices being used. Nonetheless, the non-tamperability of EVMs is of supreme consideration in all versions. To that extent safety features have been used based on the technologies available at that time and customized for the needs of the EVMs. This along with ECI's strict administrative practices on use of EVMs have ensured truthful operations of EVMs over years.
- On advice of Technical Expert Committee (TEC), certain features were introduced in EVMs from time to time, based on available technology and state-of-the-art for hardware and software. While improvements have been brought in the designs of EVMs which were enabled by the availability of advanced technology in Electronics and which have led to incorporation of many features in newer EVMs, EVMs of earlier versions also had such key features built in. Notwithstanding all this, the non-tamperability of EVMs has been of supreme consideration in all versions of EVMs. This along with ECI's strict administrative practices on use of EVMs have ensured truthful operations of EVMs over years.
- Some new features added by TEC in M2 (Post 2006) EVMs due to technological advancements:
  - (i) Dynamic Coding between Ballot Unit and Control Unit.
  - (ii) Real time clock
  - (iii) Time stamping of key presses
- Some new features added by TEC in M3 (post 2013) EVMs due to latest advancements in technology:
  - (i) Mutual authentication among all components of EVMs such as BU, CU and VVPAT
  - (ii) Automated self-diagnostics
  - (iii) Battery life predication

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## International Comparison:

- A point is raised from time to time that several foreign countries have discontinued the use of voting machines and why India is using EVMs.
- With the rapid advances in technology over the years, Election Management Bodies, professionals, experts, and activists (particularly Green Activists) have mooted the idea of using paperless electronic voting methods in different parts of the world in order to overcome the disadvantages of manual marking of paper ballots. The marriage between technology and election management goes back to at least 1892, when the first 'lever voting machine' was used in New York, after using the paper ballot for a long time. In the 1960s, punch-card machines were introduced in the USA, and the first EVM was introduced there in 1975. Electronic Voting has moved quite ahead since then.
- **Types of Electronic Voting:**  
The process of electronic voting can be of three types:
  - (i) Direct Recording Machines placed at designated polling station,
  - (ii) Internet Voting
    - Remote Online Voting
    - At Designated Polling Stations
  - (iii) Optical Scanners
    - Stand-alone
    - Networked for centralized counting of results
- EVMs used in India fall under the first type of stand-alone direct recording machines with no possibility of any kind of network connectivity where voters cast their votes at an assigned polling station on the day of election under strict administrative security ensured by the ECI.
- Even though ECI EVMs are also direct recording machines ECI EVMs are completely different from any of the EVMs used internationally either for direct recording or for internet voting or for optical scanning. This is clearly highlighted in the comparative analysis of ECI EVMs with the DRMs used in countries like Germany, Netherland, Ireland, and USA as follows:

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- **The Netherlands**

Electronic Voting was used in The Netherlands in between 1990-2007. The voting machines were manufactured by a private Dutch-company called NEDAP (Nederlandse Apparaten Fabriek NV). In 2006, the government ordered an independent testing of the voting machines. Two independent commissions, The Voting Machines Decision-making Commission and the Election Process Advisory Commission (EPAC) were also established on December 19, 2006 and January 18, 2007, respectively, to review the security and reliability features of NEDAP machines.

Following the observations of the two Commissions, the use of NEDAP machines and electronic voting was discontinued in 2007 on the following grounds:

- The Ministry of Interior and Kingdom Relations (MOIKR) of The Netherlands lacked adequate technical knowledge vis-à-vis the NEDAP machines, leading officials to depend on external actors for the conduct of elections.
- Technology vendors became part of the decision making process and the ministry was not in a position to exercise effective oversight.
- The Dutch Organization for Applied Scientific Research (Toegepast Natuurwetenschappelijk Onderzoek, TNO) certified and tested these machines following “outdated standards” which were not immune to modern IT and security threats.
- Moreover, the certification and testing reports were not made public depriving independent experts to verify the analysis.
- The legal framework, particularly the necessary security requirements, was inadequate to deal with the specificities of the electronic voting process.

(For a comprehensive report on electronic voting in The Netherlands, see link: [https://www.ndi.org/sites/default/files/5\\_Netherlands.pdf](https://www.ndi.org/sites/default/files/5_Netherlands.pdf))

- **Germany:**

In Germany, the e-voting machines manufactured by NEDAP were used in between 2005 – 2009 before it came under criticism and finally discontinued. The Bundesverfassungsgericht (the Federal Constitutional Court of Germany) ordered the discontinuation of the use of NEDAP machines in 2009 because of the below-mentioned reasons:

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- The use of Nedap electronic voting machines violated the principle of the public nature of elections (Article 38 in conjunction with Article 20.1 and 20.2 of the Basic Law) that requires that all essential steps in the elections are subject to public examinability unless other constitutional interests justify an exception.
  - It also observed that “it must be possible for the citizen to check the essential steps in the election act and in the ascertainment of the results reliably and without special expert knowledge”.

(See the judgment in the following link: [http://www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2009/03/cs20090303\\_2bvc000307en.html;jsessionid=FEA71E86E2CEE030FF7AAAC90572279C.2\\_cid383](http://www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2009/03/cs20090303_2bvc000307en.html;jsessionid=FEA71E86E2CEE030FF7AAAC90572279C.2_cid383))

- **Ireland:**

NEDAP machines were used in Ireland in between 2002 – 2004. The use of these machines was questioned following which two independent commissions were set up. The two Commissions on the Secrecy, Accuracy and Testing of the Chosen Electronic Voting System, concluded the NEDAP machines could not be used in elections in Ireland on the following grounds:

- Inadequate technological safeguards
- Insecure transfer of data by the use of CDs
- Absence of a comprehensive independent end-to-end testing, verification and certification by a single accredited body
- Inconsistencies in physical security of machines across constituencies
- Absence of a clear policy guideline via-a-vis storage, transport, set-up, use and disposal of voting equipment; and
- Absence of comprehensive electronic register to record the identity, location and movement of the electronic voting devices.

(See links: <http://www.unic.pt/images/stories/publicacoes1/00Index.pdf>; <http://www.unic.pt/images/stories/publicacoes1/Part%200%20Index.pdf>)

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- **United States of America:**

In 2000, after the dispute on the voting method in the USA presidential elections, the voting method was reviewed (Esteve, Goldsmith, & Turner, 2012: 185). Accordingly, Direct Recording Electronic (DRE) Systems (like the widely used AccuVote TS developed by Premier Election Solutions, commonly called Diebold) were introduced. DRE Systems uses “one of three basic interfaces (pushbutton, touchscreen or dial)” through which “voters record their votes directly into computer memory. The voter’s choices are stored in DREs via a memory cartridge, diskette or smart card...Some DREs can be equipped with Voter Verified Paper Audit Trail (VVPAT) printers...” Currently, in the USA, the Direct Recording Machines are used in 27 states, among which paper audit trails are used in 15 states. The other voting methods include: Optical Scan Paper Ballot Systems, Ballot Marking Devices, and the Punch Card Ballot.

(See link: <https://www.verifiedvoting.org/resources/voting-equipment/>)

- **Other countries:**

In Brazil, the machines used in elections are called ‘electronic ballot boxes’ which are stand-alone direct electronic recording systems. In Venezuela, SATIS (Smartmatic Auditable Election Systems) voting machines are used which were fully implemented across the nation in 2004. (Esteve, Goldsmith, & Turner, 2012: 185)

- **India:**

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 were manufactured entirely by private entities. Hence there is no chance of involvement of vested interest of private players or technology vendors in decision making or production of the ECI-EVMs.
- ECI-EVMs have been time and again successfully verified and certified by an independent Technical Experts Committee after an end-to-end testing process. STQC under Ministry of Information and Technology, an accredited third party entity, conducts standardization and certification of ECI EVMs produced by manufacturers, unlike the machines used in Netherlands,

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- In ECI EVMs data is stored internally and not transferrable by any device, unlike other countries where voting data recorded in the DRM is transferred by means of CD, etc.
  - Commission has evolved full end to end security protocol and administrative safeguards for the use, storage, transportation and tracking of ECI EVMs, unlike in other countries where NEDAP machines were used.
  - Unlike MOIKR of Netherlands, the Commission is fully backed by a Technical Expert Committee comprising of eminent professors.
  - 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.
  - The software used in these EVMs is One Time Programmable (OTP), which can't be re-written after manufacture.
  - The ECI-EVMs are always under strict, uniform, high profile administrative and physical security as per legal framework across the country.
  - Section 61 A of the Representation of the Peoples Act 1951 allows the use of EVMs by ECI. The different High Courts across the country have also upheld the use of EVMs time and again in various judgments and the Karnataka High Court in 2004 declared ECI-EVMs as "national pride" because of its transparency and robustness.
  - 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 implement VVPATs nation-wide by 2019. Thus there will be 100% voter verifiability and auditability of every vote cast as opposed to lack of such facility in the NEDAP machines which was struck down by the German Supreme Court as un-Constitutional. Whereas Indian Supreme Court has upheld the validity of use of EVM for conducting elections in the country.
  - Thus any comparison of ECI-EVMs with machines used elsewhere is misplaced.

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## VOTER VERIFIABLE PAPER AUDIT TRAIL (VVPAT)

- In a meeting of all political parties held on 4th October, 2010, the parties expressed satisfaction with the EVM but some parties requested the Commission to consider introducing Voter Verifiable Paper Audit Trail for further transparency and verifiability in poll process. In India, the demand of VVPAT to increase transparency was floating in the air for some time after such a tool was first demonstrated in New York City in March 2001 and first used in Sacramento, California in 2002. The demand was referred to the Technical Expert Committee (TEC) by the ECI.
- Introduction of VVPAT implied that a paper slip is generated bearing name and symbol of the candidate along with recording of vote in Control Unit, so that in case of any dispute, paper slip could be counted to verify the result being shown on the EVM. Under VVPAT, a printer is attached to the balloting Unit and kept in the voting compartment. The paper slip remains visible on VVPAT for 07 seconds through a transparent window. The Commission referred the matter to its Technical Expert Committee (TEC) on EVMs for examining and making a recommendation in this regard. The Expert Committee had several rounds of meetings with the manufacturers of EVM, namely, BEL & ECIL, on this issue and then had met the political parties and other civil society members to explore the design requirement of the VVPAT system with the EVM.
- On the direction of the Expert Committee, the BEL and ECIL made a prototype and demonstrated before the Committee and the Commission in 2011. On the recommendation of the Expert Committee on EVM & VVPAT system, the Commission conducted simulated election for the field trial of VVPAT system in Ladakh (Jammu & Kashmir), Thiruvananthapuram (Kerala), Cherrapunjee (Meghalaya), East Delhi District (NCT of Delhi) and Jaisalmer (Rajasthan) in July 2011. All stake holders including senior leaders of political parties and civil society members participated and witnessed enthusiastically in the field trial. After 1st field trial of the VVPAT system, Commission made a detailed reassessment of the VVPAT system to further fine tune the VVPAT system. Accordingly, the manufacturers developed 2nd version of VVPAT prototype. The same was again subjected to 2nd field trial in the said five locations in July-August 2012.
- In the meeting of the Technical Expert Committee held on 19th February, 2013, the Committee approved the design of VVPAT and also recommended the Commission to take action on amendment of the rules for using VVPAT. The model was demonstrated to all the political parties in an all-party meeting on 10th May, 2013. The Government of India notified the amended Conduct of Elections Rules, 1961 on

14th August, 2013, enabling the Commission to use VVPAT with EVMs. On 4th September, 2013, the Commission used VVPAT with EVMs first time in bye-election from 51-Noksen (ST) Assembly Constituency of Nagaland.

- On 8th October, 2013, the Hon'ble Supreme Court ordered introduction of VVPAT in phases in its judgment on a PIL and asked Government to sanction funds for procurement. As directed by the Hon'ble Supreme Court of India, the ECI introduced the VVPAT system in a phased manner so that full implementation could be achieved by 2019. In 2013, the ECI procured 20000 VVPATs. On 25th November, 2013, VVPATs were used in 10 ACs in Mizoram; on 4th December 2013, it was used in one AC in Delhi; and thereafter in subsequent elections.
- The following table gives us the journey of VVPAT in India at a glance:**

Date	Chronology of Events
4th Oct 2010	An all-party meeting held. Agreement on incorporation of VVPATs along with EVMs.
July 2011	Field trial conducted after the prototype was manufactured, in Thiruvananthapuram (Kerala), Delhi, Cherapunjee (Meghalaya), Jaisalmer (Rajasthan) and Leh (Jammu & Kashmir).
July-Aug 2012	A second field trial was conducted
19th Feb 2013	Final model was approved by TEC
10th May 2013	The Model was demonstrated to all political parties
14th Aug 2013	The conduct of Election Rules 1961 was amended and notified
4th Sep 2013	Election Commission of India used VVPAT along with EVMs in a bye-elections for 51-Noksen AC in Nagaland
8th Oct 2013	Hon'ble Supreme Court directed ECI to introduce the VVPAT system in a phased manner. full implementation to be achieved by 2019
25th Nov 2013	VVPATS were used in 10 ACs of Mizoram
4th Dec 2013	VVPAT was used in one AC in Delhi and thereafter in subsequent elections
Feb-Mar 2017	52000 VVPATs were used in 33 ACs in Punjab, 6 ACs in Manipur, 3 ACs in Uttarakhand, 30 ACs in Uttar Pradesh and 40 ACs in Goa
April 2017	Approval of Government received for purchase of 16, 15,000 VVPATs at a total estimated cost of Rs.3173.47 Crores

- So far, VVPATs have been used in 266 Assembly Constituencies and 9 Parliamentary Constituencies. In Goa elections in 2017, VVPAT was employed in all 40 LACs. ECI employed about 53,500 VVPATs in five States where elections were held recently.



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## Recent issues and controversies:

- After the declaration of the state assembly elections results in March 2017, some political parties have raised doubts about the fairness of the election process through the EVM, tagging it as tamperable, and hence an unreliable voting gadget.
- On 10.04.2017, representatives of thirteen (13) political parties met the Commission and submitted a joint representation expressing concerns about the transparency of voting method with the use of the EVM. Leaders of some of these parties either met or, wrote to the Election Commission of India (ECI), expressing their apprehensions and presenting their arguments against the use of EVM for casting and recording popular votes. Some excerpts from the petitions and representations made to the Commission are reproduced here:
  - “In view of the above, it is earnestly prayed that (a) To consider replacing/substituting the current State CEO and Collector/DRO, Bhind. This is a minimum expectation to instill the faith in Indian democratic polity. (b) ECI may direct impartial and unimpeachable experts to revisit and re-verify the authenticity of all voting machines being deployed in the two bye-elections in MP, which must be done transparently in the presence of authorized representatives of political parties and/or candidates. (c).... it is necessary that the entire process should be reexamined thoroughly and all agencies and persons involved in the maintenance, operationalization and data feeding in the machines and all other performing duties and responsibilities including storage before use of EVMs in further elections and all parties should be taken in confidence...”. (Letter dated 01.04.2017 from All India Congress Committee)
  - “With regard to the Bhind incident, kindly allow us to examine that particular machine in the presence of your officers. There are serious apprehensions that its software has been changed.” (Letter dated 03.04.2017 from Aam Aadmi Party)
  - “It is in the paramount interest of all political parties concerned, that these incidents/allegations should be impartially investigated and the truth about the same be placed before the people of India...It is imperative that the Election Commission of India which has a Constitutional mandate to conduct national and State elections in a fair, free and impartial manner, take urgent note of the concerns and apprehensions raised by major political parties...

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till such time, the issues of tampering and malfunctions of the EVMs are addressed and the tamper-proof and flawless functioning of EVMs is technologically established and endorsed globally, to the satisfaction of the political parties, the forthcoming elections should be conducted under the old paper ballot system.” (Representation on behalf of Political Parties dated 10.04.2017)

- Two more incidents were brought to the knowledge of the Commission - one pertaining to the recently concluded Bye-elections in Bind (Madhya Pradesh) and the other one relating to Dholpur (Rajasthan). The incidents were enquired and the facts are as follows:
  - The first incident pertained to the bye-election to Ater AC in Bind District of Madhya Pradesh in Mar-Apr 2017, wherein it was claimed that on pressing 4 (four) different buttons on the machine, only the symbols of one party were printed. A detailed enquiry into the reported allegations of EVM tampering to favour a specific political party was conducted by the Commission. The Enquiry report clearly pointed out that the allegations were totally unsubstantiated and baseless. The confusion was created due to the non-adherence of the prescribed protocols and instructions of the Commission at a mock demonstration by the competent officers, due to which the previously stored data in VVPAT was not erased. However, the allegation of every button press yielding the same symbol were found to be untrue. Nonetheless, the Commission took a serious view of the procedural lapses and non-compliance of extant instructions and initiated prompt action against the district level officers for the lapse. The detailed Press Note released by the Commission in this regard is available on the Commission’s website and is also placed at **ANNEXURE-2**.
  - The second incident relates to the factually incorrect and misleading news about 18 tampered and malfunctioning EVMs in Dholpur Bye-elections in Rajasthan. The matter was duly enquired and contrary to the allegations, only 2 EVMs out of 231 deployed in Dholpur AC (which is less than 1%) were found defective and changed. The Press Release issued by the Commission regarding this issue is also available on the website, as also placed here at **ANNEXURE-3**.

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## Present Status:

- Hon'ble Supreme Court in its order dated 8 Oct 2013 has observed that EVMs with VVPAT system ensures the accuracy of the voting system. With an intent to have fullest transparency in the system and to restore the confidence of the voters, it is necessary to set up EVMs with VVPAT systems because vote is nothing but an act of expression which has immense importance in democratic system. The apex court appreciated the efforts and good gesture made by the ECI in introducing VVPATs and permitted the ECI to introduce the same in a gradual stages or geographical wise in the ensuing general elections. The Court also directed the Government of India to provide required financial assistance for the procurement of units of VVPATs for the implementation of VVPAT system in a phased manner.
- Amidst the ongoing debate on the EVM, the ECI not only reaffirmed its faith on the transparency, credibility, non-tamperability and robustness of the machines, but also stressed on the immediate deployment of VVPATs for safeguarding the integrity of the voting system as well as strengthening confidence of the voters. In order to ensure the compliance of Hon'ble Supreme Court order The Chief Election Commissioner of India vigorously pursued the allocation of funds to the manufacturers for the timely manufacture and supply of required quantity of VVPATs to the ECI for ensuring 100% VVPAT coverage at all polling stations. The Election Commission also vigorously reviewed the production capacity of the manufacturers impressing upon them the need to strictly adhere to the schedule by enhancing their manufacturing capacity.
- Based on Commission's continuous follow up the funds have since been allocated on 19 April 2017 amounting to Rs 3173.47 crore for purchase of 16,15,000 VVPATs and orders have been issued to the manufacturers. It is pertinent to mention that Rs 1939.95 crore has been sanctioned and released by the Government for the manufacture of M3 EVMs. The manufacturers have committed to manufacture the EVMs and VVPATs and supply to ECI by Sep 2018.
- The Commission is committed to using VVPAT machines along with EVMs in all future elections to be conducted under its superintendence and direction for the Parliament and State Legislative Assemblies.

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## Conclusion:

- As is evident, the EVM used in Indian elections have gone through a long journey of evolution amidst challenges and has emerged as an effective machine of electoral reform over the years since its introduction. It has enhanced public confidence as well as legitimacy of Indian elections in the eyes of the world.
- The Indian EVM stands as one of the most credible, non-tamperable and transparent machine amongst all such machines used in other parts of the world. Indian EVMs have attracted the attention of many Afro-Asian countries also. Till date, no one could actually demonstrate that EVMs in possession of ECI and used by it, can be tampered with or manipulated. What has been demonstrated or claimed to have been demonstrated is on a privately assembled “look-alike of ECI-EVMs” and not the actual ECI-EVM used by ECI. Recently, on an allegation of EVMs yielding votes for only one political party in Bhind (Madhya Pradesh) and Dholpur (Rajasthan), the ECI promptly conducted an enquiry which found out that such allegations were found to be baseless.
- Today, the ECI once again completely reaffirms its faith in the non-tamperability of the EVMs of ECI in view of the technical security features and the stringent administrative protocols and procedural safeguards which are mandatorily to be followed during and after the polls. In conclusion, it will be pertinent to refer to the verdict of the Karnataka High Court in this respect, which observed that EVM in India is a “national pride” and the fact that Indian elections are widely internationally acknowledged as the “Global Gold Standard”.
- The Commission and electoral system stakeholders have taken a conscious decision that EVM is the right answer to the formidable task of election management and the huge logistical challenges it throws. The ECI hopes that once the VVPATs cover all the polling booths in the country, the confidence and transparency will be further enhanced.
- The Commission firmly believes that the introduction of VVPAT machines with the EVMs in all future elections will bring utmost transparency and credibility in the EVM-based voting system in our country and conclusively put to rest all misinformed doubts and misgivings regarding these machines.

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- The Commission will launch a comprehensive, concerted and nation-wide voter education and awareness programme under its flagship SVEEP initiative, to educate, orient and inform the voters about the functioning, usage and advantages of the VVPAT machines and their immense utility in reinforcing the transparency, credibility and authenticity of the voting process. The Commission earnestly solicits the cooperation and collaboration of all the vital stakeholders, particularly the political parties, to join hands in spreading awareness about the advantages of VVPAT machines. The Commission is confident that the collaborative efforts of all the stakeholders in the electoral process will lead to continuous improvements in the electoral management and make our system more transparent, participative, informed and credible.
  - The Commission firmly believes in an open, constructive and comprehensive dialogue with all crucial stakeholders in the electoral process and the political parties are a critical stakeholder of the democratic edifice in the country. Considering the recent issues regarding use of EVMs, the Commission offered to convene an All Party Meeting. The objective behind the said meeting is to facilitate threadbare discussions and detailed deliberations amongst the important players in the electoral arena on this vital issue, so that all views and counter-views are placed on the table and thrashed out transparently and cogently. The Commission sincerely solicits the views and suggestions of the various political parties on further improvement in the electoral system.

## ANNEXURE – 1

Name of State/UT	Elections in which EVMs used			
	Year	Year	Year	Year
Andhra Pradesh	2004	2009	2014	
Arunachal Pradesh	2004	2009	2014	
Assam	2001	2006	2011	2016
Bihar	2000	2005	2010	2015
Chhattisgarh	2000	2003	2008	2013
Goa	2002	2007	2012	2017
Gujarat	2002	2007	2012	
Haryana	2000	2005	2009	2014
Himachal Pradesh	2003	2007	2012	
Jammu & Kashmir*	2000	2004	2009	2014
Jharkhand	2000	2005	2010	2014
Karnataka	2004	2008	2013	
Kerala	2001	2006	2011	2016
Madhya Pradesh	2003	2003	2013	
Maharashtra	2004	2009	2014	
Manipur	2002	2007	2012	2017
Meghalaya	2003	2008	2013	
Mizoram	2003	2008	2013	
Nagaland	2003	2008	2013	
Orissa	2000	2004	2009	2014
Punjab	2002	2007	2012	2017
Rajasthan	2003	2008	2013	
Sikkim	2004	2009	2014	
Tamil Nadu	2001	2006	2011	2016
Tripura	2003	2008	2013	
Uttar Pradesh	2002	2007	2012	2017
Uttarakhand	2002	2007	2012	2017
West Bengal	2001	2006	2011	2017
Delhi	2003	2008	2013	2015
Puducherry	2001	2006	2011	2016

**TOTAL: 107 State Assembly Elections**

**EVMs were also used in all constituencies in General Elections to Lok Sabha in 2004, 2009 and 2014.**

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## ANNEXURE – 2

### ELECTION COMMISSION OF INDIA

Nirvachan Sadan, Ashoka Road, New Delhi – 110 001.

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No.PN/34/2017

Dated: 7th April, 2017

#### PRESS RELEASE

#### **Subject: Enquiry report on Bhind (MP) Episode**

Special Enquiry team led by Shri Bhanwar Lal, Chief Electoral Officer, Andhra Pradesh has submitted its report to the Commission. The team has found no anomaly or tampering in EVM and VVPAT used during demonstration in Ater (Bhind) on 31st March, 2017. The enquiry was instituted by Election Commission of India to enquire in to all aspects of various allegations raised in the media and by the political parties.

2. The technical examination of the Ballot Unit (BU), Control Unit (CU) and VVPAT of 31st March demonstration, oral examination of the officials present during the demonstration, data retrieved from the CU have conclusively established that during the demonstration, 4 buttons of BU were pressed in the following order:

Button No.	Symbol	Name of Candidate
03	Handpump	Raju Pal
04	Lotus	SatyaDev Pachori
03	Handpump	Raju Pal
01	Hand	Ambuj Shukla

Therefore it is clear that on pressing of various buttons on EVMS during the demonstration, corresponding symbols were displayed.

3. The team in its report concluded that it is completely false to say that at multiple times slips of lotus were printed on pressing different buttons during the demonstration on 31st March as alleged.

4. The lapse related to non-deletion of the pre-loaded data of Govind Nagar AC of Kanpur Nagar from where VVPATs (not EVMs) were received and reloading with the symbols/data of dummy candidate before demonstration as per the laid down protocol of the Commission necessitate appropriate action by the Commission.

The conclusion of the enquiry committee on the allegations are as follows:

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1. The EVMs used in the demo in Bind was not brought from UP. However, the VVPAT used in the demonstration was brought from UP. Since the VVPATs are limited in number and had been used by all the poll going states during the last 5 states elections, the distribution of VVPATs for 10 states bye-elections was made by the Commission by allocating VVPATs from different poll-gone states to different poll-going states. In this case, the VVPAT was allocated from UP and brought from Govind Nagar AC of Kanpur Nagar,UP.

2. Bringing the VVPAT from UP is not in violation of law. As per the law, only the EVMs used in the Poll and the VVPAT slips contained in the box are required to be preserved for the period of 45 days in a secured manner for the purpose of Election Petition, if any. There is no bar on the movement of VVPATs machines as the same are not required to be preserved for Election Petitions as the paper slips printed through the VVPAT and contained in the Box are required to be preserved separately. In this case, however, further precaution was taken to move only the reserve VVPATs used as substitutes during poll on which no restriction applies.

**The Committee has recommended that the enquiry conclusively establishes that**

1. The accuracy of the functioning of the EVMs and VVPATs including the said EVM/VVPAT is beyond doubt.

2. Commission may like to fix responsibility on DEO and RO for the lapses brought out in the enquiry reports.

3. Commission may like to prescribe check list for handling each activity relating to EVM/VVPAT which should be mandatorily adhered to by the electoral authorities and the same should be monitored through MIS online by the Commission. The existing instructions issued from time to time may be compiled in the form of these checklists. The said revised checklists laid down by the Election Commission of India regarding handling of various activities on EVMs/VVPATs, must be rigorously followed by the entire electoral machinery from the level of Presiding Officer to the CEO.

4. Commission may like to reiterate that there should be no room for casualness in handling the electoral matters, least of all, such unwarranted remarks, as the sanctity of electoral process forms the foundation of India's democracy.

-----sd-----  
**(DhirendraOjha)**  
**Director**



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## ANNEXURE – 3

### ELECTION COMMISSION OF INDIA

Nirvachan Sadan, Ashoka Road, New Delhi – 110 001.

ECI/PN/35/2017

Dated 11th April, 2017

#### PRESS-NOTE

**Sub: Clarification on Dholpur bye poll.**

A section of media has reported that 18 EVMs malfunctioned during Dholpur, Rajasthan bye-poll held on 9th April 2017. The reports also say that the votes given to one party were going to another party.

In this connection the report has been sought from Chief Electoral Officer of Rajasthan and CEO has confirmed that only 2 EVMs out of 231 deployed have been changed due to some snag during the poll process, which is less than 0.1 percent. The Chief Electoral Officer has also informed that no complaint of mismatch in the voting has been reported from anywhere by any voter or candidate/political party during the entire polling period.

It is also clarified that the ECI does not have constitutional mandate to conduct rural and urban local bodies' elections.

In the light of above, the reports appeared in a section of media have been found to be incorrect and baseless.

-----SD-----  
(Dhirendra Ojha)  
Director







“NO VOTER TO BE LEFT BEHIND”



**Election Commission of India**

Nirvachan Sadan, Ashoka Road, New Delhi – 110001

Tel.: +91-11-23717391; Fax: +91-11-23713412

URL: [www.eci.nic.in](http://www.eci.nic.in)

[ecisveep.nic.in](http://ecisveep.nic.in)