

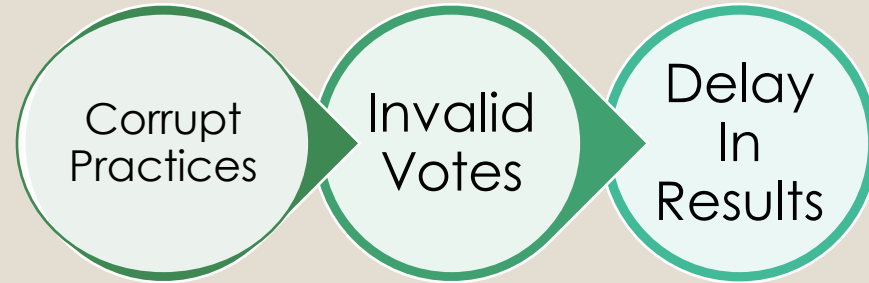


# E V M | V V P A T

Dr. Pinak Pani Nath Choudhury (NLMT)

☎ 9435883155  pinaknathh1k

# Using Ballot Paper



Election of the Member of Parliament for the *[insert name of constituency]* constituency

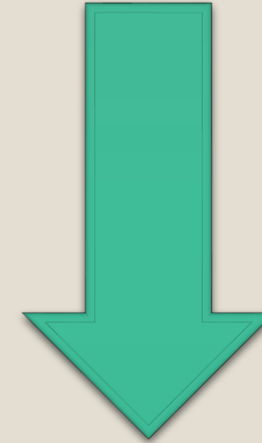
Vote for **only one** candidate by putting a cross  in the box next to your choice

BARBER, Ali 5 Anytown Close, Anytown AT34 8CY Pelican Party	❖	<input type="checkbox"/>
BOOTS, Dusty 83 Acacia Avenue, Anytown AT33 5XZ League of Line Dancers	⌘	<input checked="" type="checkbox"/>
CLOVER, Elizabeth Mary 9 Seymour Court, Anytown AT12 E34 Independent	✕	<input checked="" type="checkbox"/>
GREY, Earl (address in the Anytown Constituency) Mad Hatter's Tea Party	✱	<input checked="" type="checkbox"/>
HOOD, Robin 64 Purple Road, Anytown AT12 7HT The Forest Party	△	<input checked="" type="checkbox"/>
MILLER, Windy 7 Daisy Drive, Anytown AT98 7RK Alternative Power Forum	⊞	<input checked="" type="checkbox"/>

Reject – voting for more than one candidate. Rule 47(1)(b).



# Using EVM



Stake Holders Participation  
Accurate  
Transparency  
Quick  
Economy  
Free and Fair Elections

# EVM (Ballot Unit + VVPAT + Control Unit)

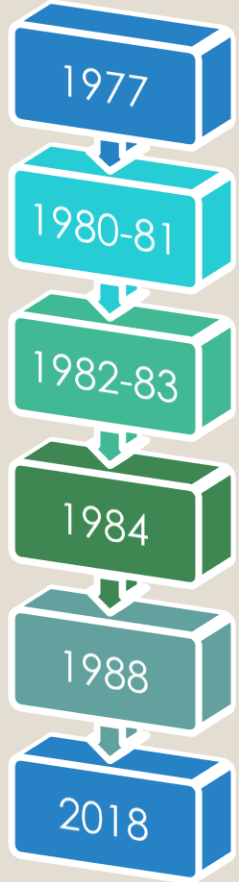


**Ballot Unit**

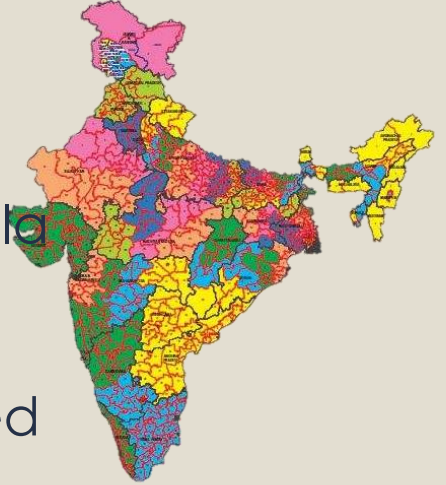
**VVPAT**

**Control Unit**

# History of EVM – 40 Years



- CEC- S L Shaktidhar talked about introducing an Electronic machine
- EVMs developed and demonstrated by ECIL and BEL
- EVMs used first time in 50 polling stations of Parur AC in Kerala  
And then in 11 Assembly Constituencies: 8 states, 1UT
- SC suspends EVM usage: cannot be used till RP Act is amended
- RP Act amended: enabling use EVMs wef 15/3/1989
- **SC dismissed *petition* asking for return to Ballot papers!**



Since 2000, EVMs have been used in all elections: 4 Loka Sabha and 124 State Legislative Assemblies.  
Till date, >325 crore votes cast on EVMs.

# EVM FEATURES

## M3

REAL TIME CLOCK  
TIME & DATE  
STAMPING AT EVERY  
KEY PRESS

AUTOMATED SELF  
DIAGNOSTICS AT  
EVERY SWITCH ON

DYNAMIC CODING  
AT EVERY KEY  
PRESS

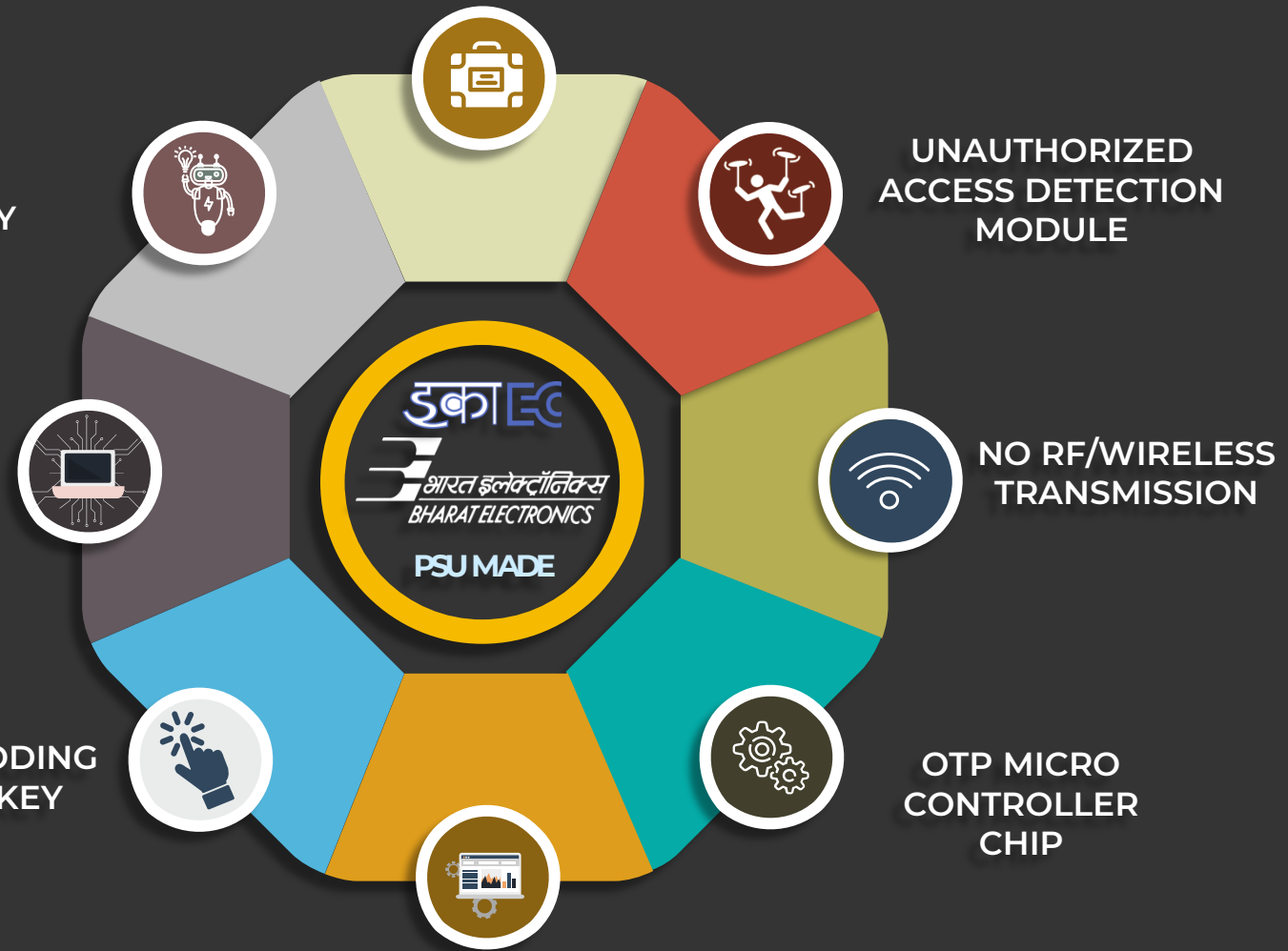
MOST ADVANCED  
ENCRYPTION  
TECHNIQUES

UNAUTHORIZED  
ACCESS DETECTION  
MODULE

NO RF/WIRELESS  
TRANSMISSION

OTP MICRO  
CONTROLLER  
CHIP

STANDALONE  
DEVICE



# Legal Provisions for the use of EVM

1. The Representation of The People Act, 1951- Section 61A
2. Conduct of Election Rules, 1961- Rules 49A to 49X- Voting by EVM
3. Counting of Votes recorded in EVM- Rules: 50-54, 57,58-61, 66A
4. ECI Instructions on EVM and VVPAT
5. Manual on Electronic Voting Machine and VVPAT
6. RO Hand Book
7. PRO Hand Book

# EVM – Carrying Cases

Carrying Case - VVPAT

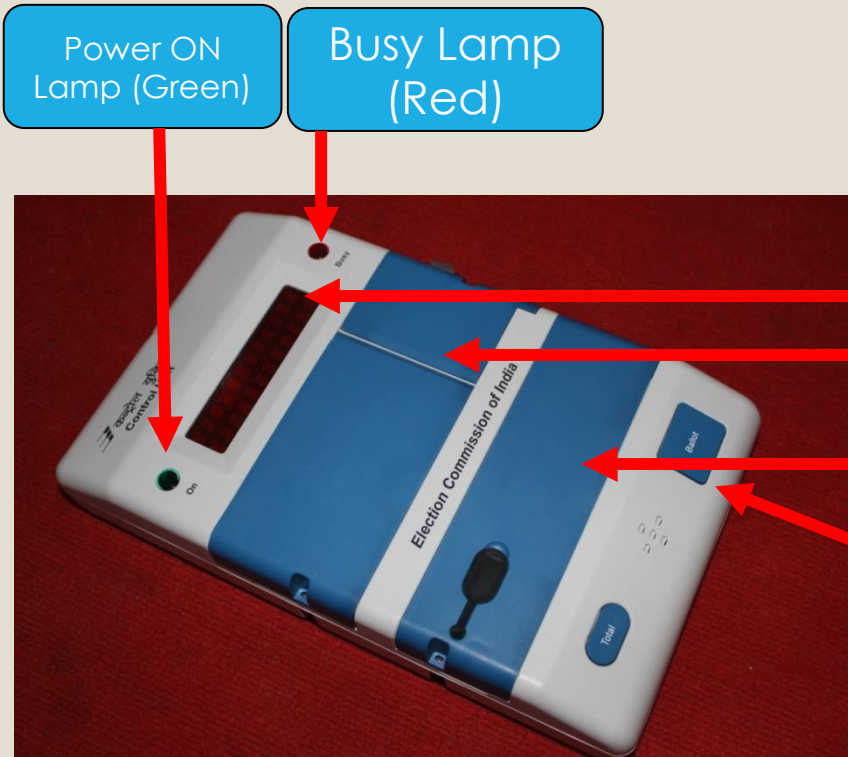
Carrying Case - Ballot Unit



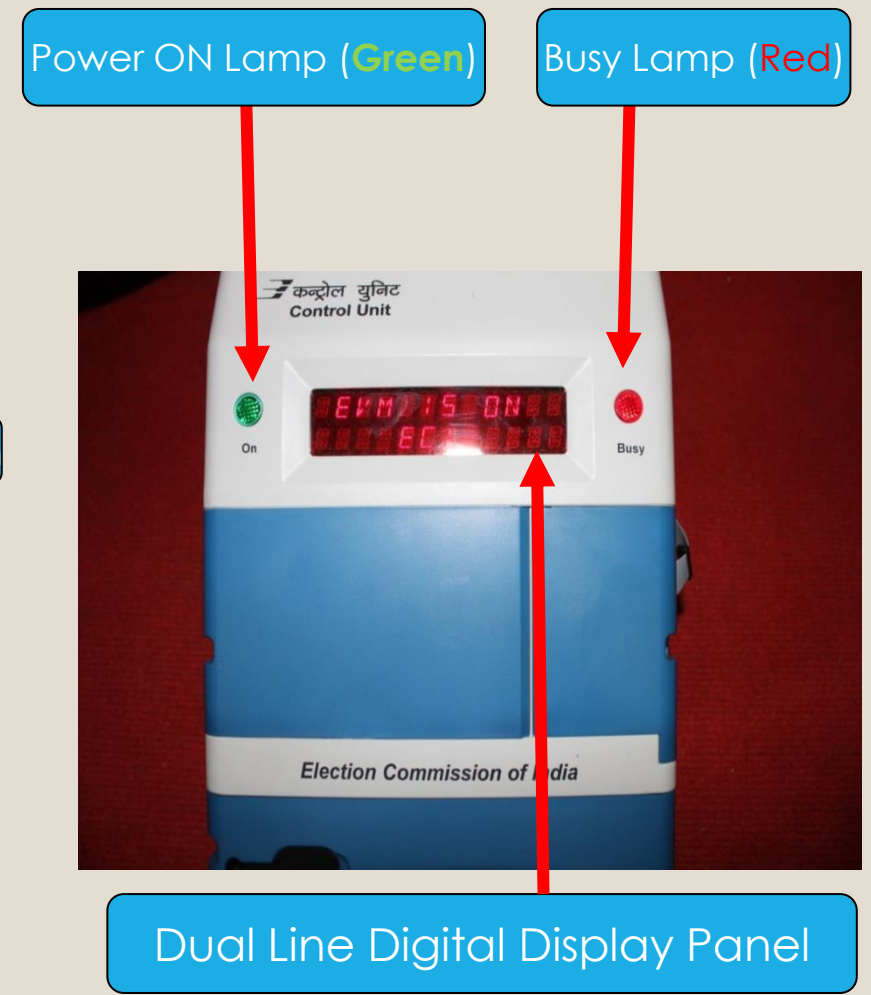
Carrying Case – Control Unit

The Control Unit and Ballot Unit and VVPAT are packed separately in special carrying cases

# EVM – Control Unit – Front View

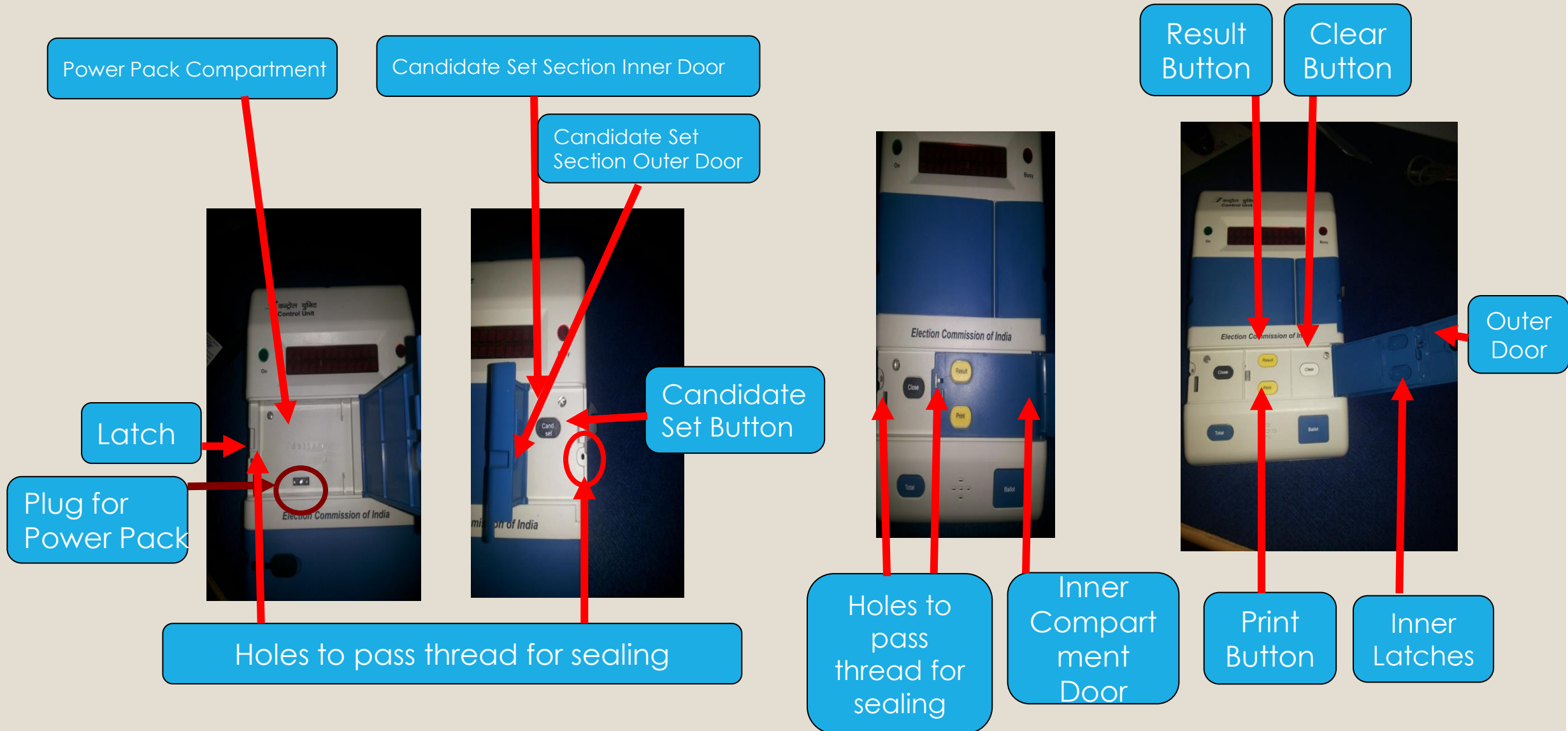


- Display Section
- Candidate Set Section
- Result Section
- Ballot Section

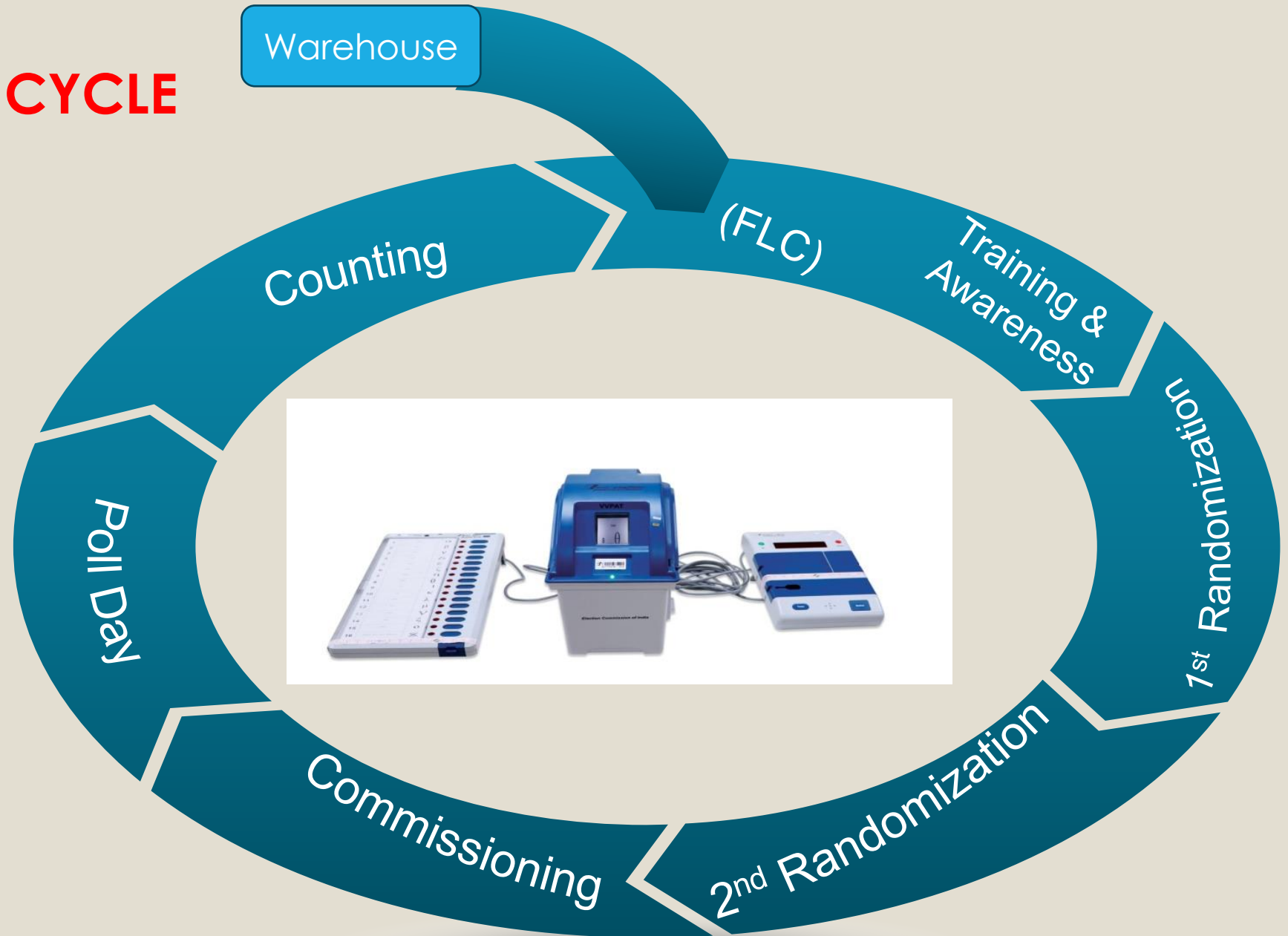




# EVM – Control Unit –Sections



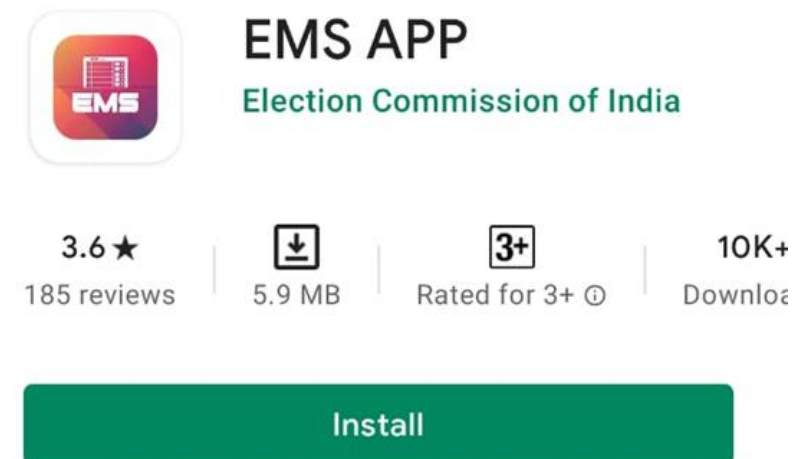
# EVM-VVPAT MANAGEMENT CYCLE



# EVM Management System (EMS)



- ✓ In house EVM Stock Management Software
- ✓ **Barcode of every EVM is scanned into EMS every time it moves from one Warehouse to another**
- ✓ All EVM Allocations done on EMS
- ✓ FLC status(OK/Rejected) captured in EMS
- ✓ EVMs Randomisation twice on EMS
- ✓ EVM sent for repair captured in EMS



# Dispersal of Polling Parties



# Dispersal of Polling Parties

- ✓ Opening of strong room in the presence of candidates/their agents on the day of dispersal
- ✓ **Not to test functioning of EVMs and VVPATs at the time of dispersal and before mock poll at polling station.**
- ✓ Polling Parties can physically check EVMs & VVPATs. However, CU can be switched ON to check battery status, No. of candidates etc.
- ✓ Ensure VVPAT knob is in Horizontal position (**Transportation mode**)
- ✓ Ensure VVPAT is not opened in direct Sunlight
- ✓ GPS tracking of movement of vehicles having EVMs/VVPATs



Transportation →



← Working

# Conduct of Mock Poll

## Move Strictly as per the Mock Poll SOP given in PO Handbook

- 1) 90 before start of Actual Poll if more than 1 polling agent is available, otherwise wait for 15 minutes
- 2) At least 01 vote to each candidate button including NOTA
- 3) At least 50 votes cast during mock poll
- 4) Verify electronic count of CU with VVPAT slips
- 5) Stamping and Sealing of mock poll VVPAT slips in black envelope
- 6) Erase mock poll from CU
- 7) Fill Mock Poll Certificate given in Presiding Officer's Report
- 8) Sealing of CU and VVPAT drop box



NOTE: In case of a defective BU or CU or VVPAT at the time of mock poll, only corresponding unit shall be replaced

# EVM/V V V A T Replacement Protocol\*

Un-polled

Polled

Prior to Mock Poll

During Mock Poll

After Poll Commencement

Defect In either  
CU/BU/VVPAT

Defect in either  
CU/BU/VVPAT

Defect in either  
BU or CU.

Defect in VVPAT  
Only

Replace the defective  
Unit Only

Replace the defective  
Unit only.

Replace all the  
3 Units

Replace the VVPAT  
Only.

Mock Poll 1 Vote  
Each Candidate

No Mock-Poll

# Poll Day

- ❑ Sealing of CU and VVPAT after mock poll
- ❑ Pressing of CLOSE BUTTON after completion of Poll
- ❑ Sealing of BU/CU/VVPAT in respective carrying case after poll
- ❑ Replacement Protocol
  - Respective Unit during Mock Poll
  - Entire Set (BU+CU+VVPAT) in case of Non-functional of BU or CU and VVPAT only in case of Non-functional of VVPAT
  - **Handling of critical situations-** no beep sound, no paper cutting, 49MA etc.

## Newly designed Pink Paper Seals and Green Paper Seals for sealing of EVMs

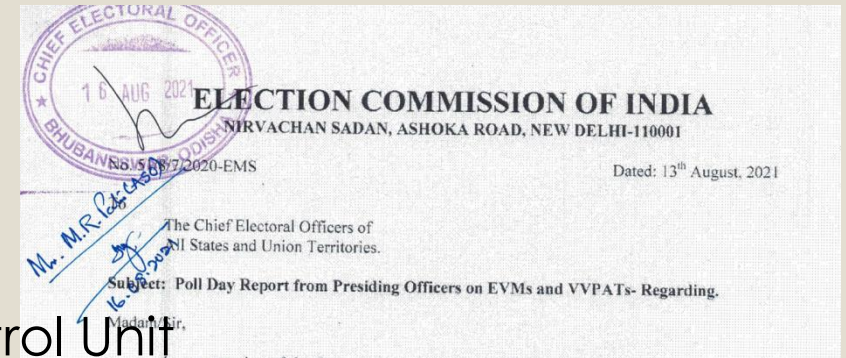


## Sealing of Result Section of the Control Unit with Green Paper Seal





# Poll Day Report from PRO on EVMS & VVPATs



- A. Part – I Mock Poll Certificate \*
- B. Part – II Replacement of Power Pack of the Control Unit
- C. Part – III Pressing of Close Button after Completion of Poll Certificate \*
- D. Part –IV EVM/VVPAT Replacement Report (if Replaced During Mock Poll)
- E. Part – V EVM/VVPAT Replacement Report (if Replaced During Actual Poll)

**PRESIDING OFFICER'S REPORT**  
**PART-I: MOCK POLL CERTIFICATE**

Name of election:..... (to be pre-printed)  
 No. and Name of AC/AS: ..... (to be pre-printed)  
 No. and Name of PC: ..... (to be pre-printed)  
 Polling Station No:.....

(a) Conduct of mock poll and verification of mock poll data

S. No.	Name of the Candidate (Name of Candidates including NOTA to be pre-printed)	Number of votes cast during mock poll	Number of votes displayed in CU on checking the result	Number of VVPAT printed Paper slips against candidates	Result displayed in CU & Printed Paper Slips count tallied with each other (YES/NO)	Signature of polling agents with party abbreviation/In dependent

**PRESIDING OFFICER'S REPORT**  
**PART-III: PRESSING OF CLOSE BUTTON AFTER COMPLETION OF POLL**

Name of the Election : ..... ( to be pre-printed)  
 No. & Name of the AC/AS : ..... (to be pre-printed)  
 No. & Name of the PC : ..... (to be pre-printed)  
 Date of Poll : ..... (to be pre-printed)  
 Number & Name of Polling Station : .....

It is certified that I have pressed the "Close Button" of the Control Unit at the end of poll in the presence of the following:

S. No.	Name & Designation of the Polling Officer	Signature

# After poll

- Press CLOSE button of CU after poll
- Press TOTAL button of CU to note total polled votes in CU and also Poll Start Time (PST) and Poll End Time (PET).
- Switch OFF the CU before disconnecting the cable of BU from VVPAT and VVPAT cable from CU
- Remove Power Pack (Battery) from VVPAT.
- Keep BU, CU and VVPAT in their respective carrying cases and seal each carrying case with Address Tag and deposit the same in the receiving center.

# EXAMPLES OF CRITICAL MISTAKES

## Transportation of VVPATs

- Not Locking the paper roll when transporting the VVPAT from one place to another

## Dispersal

- Switching on the VVPAT in broad daylight at the time of dispersal as that may cause VVPAT machine to go into error mode.

## Mock Poll

- Not pressing the CLOSE button of CU after mock-poll.
- Not matching the mock-poll result of the CU with the VVPAT Paper Slips.
- Non-deletion of mock-poll data from the Control Unit.
- When setting up the EVMs and VVPATs in the polling station, the VVPAT should be positioned so as to avoid direct light from falling on it.
- Do not position the VVPAT near an open window or directly under a bulb or halogen lamp.

## During Poll

- Conducting mock poll, in case of replacement of VVPAT only as Mock poll is not required to be conducted in case of only VVPAT being replaced.
- In case of non-functioning of CU or BU replacing only CU or BU. In such case both BU and CU along with VVPAT shall be replaced.
- Non-pressing of CLOSE Button after completion of Poll.
- Damaging any seal of BU/CU/VVPAT.

## General

- Do not repeatedly switch ON and OFF the VVPAT as it will deplete the battery as well as paper roll.
- Switch OFF the CU when connecting or disconnecting the EVMs/VVPATs and do not pull the cable for disconnecting.

## ERROR

1. Lamp does not glow when the EVM is switched ON.

2. No beep sound and display indication when the EVM is ON.

3. Display shows **INVALID** and a beep sound heard.

## REASON

Battery (power pack) is not fitted properly or it maybe drained.

The Control Unit is defective and not fit for use.

The button not pressed in proper sequence

## REMEDY

Insert the battery (power pack) properly. If the problem persists replace battery.

Replace the Control Unit with the good one and report to BEL.

Press the button in proper sequence only.

## ERROR

## REASON

## REMEDY

3.1) **INVALID** When **CANDIDATE SET** button is pressed.

Ballot or Close button is already pressed

EVM accepts Candidate only when it is cleared.

3.2) **INVALID** When **CLEAR** button is pressed.

Previous result not seen.

Press the result button.

3.3 **INVALID** When **BALLOT** is pressed

Machine Closed

Follow complete sequence

3.4 **INVALID** When **RESULT** is pressed

Machine NOT CLOSED

Press the close Button.

## ERROR

4. No response to TOTAL button in the Control Unit.

## REASON

Busy lamp is ON

## REMEDY

Allow the voter to record his/her vote.

5. Ballot button is pressed, Busy lamp does not glow. Instead *BU01 NOT RESPONDING* appears on the Display Panel and short interrupted beep sound is heard.

Interconnecting cable of BU1 not Connected

Fix the cable properly.

## ERROR

## REASON

## REMEDY

6. Display showing **ERROR** and a beep sound is heard.

Control Unit is defective

Replace the Control Unit

**7. "Pressed Error"**

BU Button is struck.

Switch of the CU, gently check the BU Buttons or replace.

**8. INOPERATIVE.**

Dysfunctional CU.

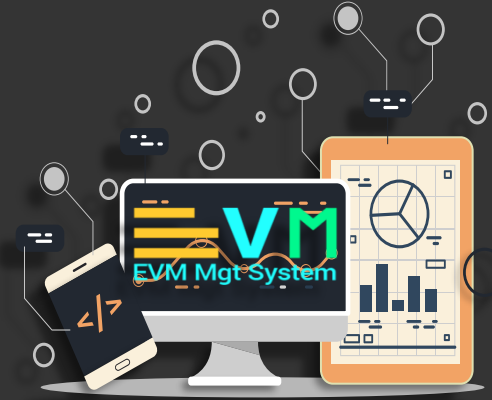
Replace CU.

9. All candidate LED of BU are blinking.

BU is dysfunctional.

Replace BU

THANK  
YOU



Dr. Pinak Pani Nath Choudhury