



## Voter Verified Paper Audit Trail (VVPAT)

**For Prelims:** [ECI](#), [VVPAT](#), [Electronic Voting Machine](#), [Model Code of Conduct](#)

**For Mains:** Challenges facing the VVPAT system in Indian elections, Potential solutions for ensuring the reliability and transparency of the VVPAT system in future elections, VVPAT and Free and Fair Elections.

**Source:** [IE](#)

### Why in News?

Recently, the [Supreme Court](#) announced that it would soon address petitions for 100% verification of [Voter Verified Paper Audit Trail \(VVPAT\)](#) slips, just ahead of the first phase of voting on 19<sup>th</sup> April 2024.

### What is a VVPAT Machine?

#### ▪ About:

- The [VVPAT machine](#) is attached to the **ballot unit** of the [Electronic Voting Machine \(EVM\)](#), and provides visual verification for the vote cast by a voter by printing a slip of paper with the voter's choice on it.
- The slip of paper with the candidate's details is **briefly displayed** for verification behind a glass window, giving the voter 7 seconds, before dropping into a compartment below.
- Voters are **not allowed** to take the VVPAT slip home as it is **used to verify votes in five randomly selected polling booths**.
- The concept aims to **enhance trust** in the voting process by enabling **physical verification** of electronically cast votes, reassuring both voters and political parties about the accuracy of their votes.

#### ▪ Reason for Introduction:

- The concept of the VVPAT machine was **initially proposed in 2010** during a meeting between the [Election Commission of India \(ECI\)](#) and **political parties** to enhance [transparency](#) in the **EVM-based polling process**.
- Following prototype preparation, **field trials were conducted** in Ladakh, Thiruvananthapuram, Cherrapunjee, East Delhi, and Jaisalmer in **July 2011**.
  - It led to **the approval of VVPAT** by an expert committee of the ECI in **February 2013**.

#### ▪ Legal Aspect:

- In **2013**, the [Conduct of Elections Rules, 1961](#) were amended to allow for a **printer with a drop box** to be attached to the EVM.
  - The **VVPAT** was first used in all 21 polling stations of the **Noksen Assembly** constituency of Nagaland in 2013, leading to its phased introduction decided by the ECI, with **100% adoption by June 2017**.
- **Supreme Court's Views on VVPAT:**
  - In [Subramanian Swamy vs Election Commission of India Case, 2013](#), the Supreme Court mandating VVPATs for transparent elections, compelling

**government funding** for their implementation.

- **In 2019**, a petition was moved to the SC asking for a minimum 50% randomised VVPAT slips to be counted.
  - However, the Election Commission of India (ECI) raised concerns regarding the challenges posed by counting 50% of VVPAT slips, including a potential delay of 5-6 days in declaring election results and infrastructure limitations such as the availability of manpower.

## What Does the Statistical Data Say About VVPAT Slips?

- Initially the **Election Commission** used to match VVPAT **paper slips of 4,125 electronic** voter machines under the one EVM per assembly segment rule.
  - This was based on the result of the request made by the EC, in 2018 **to the Indian Statistical Institute (ISI)** to determine a sample size for the **internal audit** of VVPAT slips with EVM results that is mathematically sound, statistically robust, and practically cogent.
    - **As per ISI's calculations**, even counting **slips from 479** randomly selected VVPATs across the country **would guarantee over 99% accuracy**.
- However, the **Supreme Court** ruled in 2019 that **VVPAT slips of five electronic voting machines in every constituency should be counted** instead of just one EVM for the **greatest degree of accuracy**, and satisfaction in the election process.
  - These five polling stations are **selected by a draw** of lots by the Returning Officer concerned, in the presence of candidates/ their agents.
  - With the Supreme Court ruling, the **ECI has to now count VVPAT slips of 20,625 electronic voting machines**.

## Indian Statistical Institute (ISI)

- The **Indian Statistical Institute (ISI)** is a prestigious institution in India, recognised as an **Institute of National Importance** by the 1959 act of the Indian parliament.
- It was registered on 28th April 1932 as a non-profit distributing learned society under the **West Bengal Societies Registration Act, 1860**.
- It was founded by **Professor Prasanta Chandra Mahalanobis in Kolkata**.
- ISI engages in extensive research, with contributions to various fields and collaboration with governmental and industrial entities.
  - It comes under the **Ministry of Statistics and Program Implementation**.

### **Drishti Mains Question:**

Q. Examine the importance of Voter Verified Paper Audit Trail (VVPAT) in maintaining electoral integrity and reinforcing democratic values in India.

## UPSC Civil Services Examination, Previous Year Questions (PYQ)

### **Mains:**

Q. In the light of recent controversy regarding the use of Electronic Voting Machines (EVM), what are the challenges before the Election Commission of India to ensure the trustworthiness of elections in India? (2018)

