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LAW IN THE AGE OF ARTIFICIAL INTELLIGENCE

A Fundamental Perspective



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The International Conference on “Law in the Age of Artificial Intelligence: A Fundamental Perspective” provided an academic platform to examine the transformative impact of Artificial Intelligence on law, legal systems, governance and society.

The conference explored emerging legal and ethical questions relating to Artificial Intelligence, including intellectual property, authorship and ownership, liability, data privacy, cybersecurity, criminal justice, evidence law, human rights, ethics and accountability. It addressed the implications of Artificial Intelligence for legal education, commercial law, regulatory frameworks, policy development, research and scholarly communication.

The conference brought together academicians, research scholars, legal professionals and students to present research, exchange ideas and engage in interdisciplinary discussions. It encouraged meaningful academic dialogue and contributed towards the development of effective, ethical and inclusive legal responses to the rapidly evolving Artificial Intelligence landscape.

Conference	International Conference
Theme	Law in the Age of Artificial Intelligence: A Fundamental Perspective
Date	24 January 2026
Time	10:00 AM onwards
Mode	Online
Organised by	IQAC, Student Research Society and Library Committee
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PRINCIPAL'S MESSAGE

KES' Shri. Jayantilal H. Patel Law College



It gives me immense pleasure to welcome all academicians, research scholars, legal professionals and students to the International Conference on “Law in the Age of Artificial Intelligence: A Fundamental Perspective.”

Artificial Intelligence is transforming the way societies function and is increasingly influencing legal systems, governance, professional practices and education. These developments bring significant opportunities as well as complex legal, ethical and social challenges.

This conference provided a valuable platform for intellectual exchange and interdisciplinary dialogue on emerging issues such as data privacy, intellectual property, liability, criminal justice, human rights, ethics and the governance of Artificial Intelligence. The scholarly contributions and discussions during the conference encouraged deeper understanding and promoted responsible approaches to the use of Artificial Intelligence.

I extend my best wishes to all the speakers, researchers, presenters, participants and members of the organising team for a meaningful and intellectually enriching conference.

DR. VIRAL DAVE

I/c. Principal

KES' Shri. Jayantilal H. Patel Law College

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REIMAGINING PANCH WITNESSES IN THE AGE OF ARTIFICIAL INTELLIGENCE: OPPORTUNITIES AND CHALLENGES

Aabha Jain¹

I. ABSTRACT

The institution of the panch witness occupies a significant place in Indian criminal procedure, functioning as a human-centric procedural safeguard intended to ensure transparency, fairness, and credibility during searches, seizures, and other investigative acts. Despite its normative importance, the practical operation of the panch witness system has been consistently questioned due to concerns relating to availability, independence, procedural formalism, and post facto reconstruction of investigative steps. Simultaneously, criminal investigations increasingly operate within a technologically mediated environment shaped by digital documentation. This paper critically examines the evolving interface between artificial intelligence and the panch witness system, focusing on how AI-assisted mechanisms can supplement and reform traditional procedural safeguards without displacing their underlying objectives. It adopts a doctrinal and analytical methodology within the framework of the Bharatiya Nagarik Suraksha Sanhita, 2023 and the Bharatiya Sakshya Adhiniyam, 2023. The paper argues that while video recording and metadata-based documentation are digital tools, artificial intelligence plays a crucial role in authenticating, analysing, and managing such records through tamper detection, procedural compliance analysis, and secure chain-of-custody systems. These capabilities enhance the evidentiary reliability and transparency that panch witnesses were originally designed to secure. At the same time, the paper identifies significant challenges arising from the integration of AI into criminal procedure, including risks of technological over-reliance, opacity of algorithmic systems, potential manipulation of digital evidence, and concerns relating to privacy and due process. The paper concludes by advocating a cautious hybrid procedural model in which AI-assisted systems complement, rather than

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replace, panch witnesses, thereby reimagining their role in a manner consistent with constitutional values and the contemporary demands of criminal justice.

II. KEYWORDS

Panch Witness; Artificial Intelligence; Bharatiya Nagarik Suraksha Sanhita, 2023; Digital Evidence; Criminal Procedure Reform.

III. INTRODUCTION

Panch witnesses are independent persons from the general public whose presence during searches and seizures is meant to create confidence that the police acted fairly and followed the law.² If independent members of the public observe what happened, it becomes harder to plant articles, fabricate recoveries, or reconstruct events later.³ This is why the law has long insisted on calling respectable inhabitants to witness certain investigative acts.⁴ Under the Code of Criminal Procedure, 1973, Section 100 required the officer conducting a search to call upon two or more independent and respectable inhabitants of the locality,⁵ or from another locality if none are available or willing.⁶ This safeguard is closely linked to the constitutional guarantee of a fair, just, and reasonable procedure⁷ under Article 21 of the Constitution.⁸

Yet the institution has been under stress for decades. Many citizens avoid participation. Some fear repeated court visits.⁹ Others fear local pressure, especially where accused persons are influential.¹⁰ In response, investigating agencies sometimes rely on the same individuals across cases. In some trials, panch witnesses

² B Hydervali, 'Comparative Criminal Justice - Search and Seizure, Interrogation, and Identification of Suspects in India and America' (1990) 18 Indian Journal of Criminology 7.

³ Justice M L Singhal, *Ratanlal & Dhirajlal: The Bharatiya Nagarik Suraksha Sanhita 2023*, vol 1 (23rd edn, LexisNexis 2024) <https://knowledge-lexisnexis-in-dsnlu.knimbus.com/pdfreader/ratanlal--dhirajlal-bharatiya-nyaya-suraksha-sanhita-202323rd-edn-hb>.

⁴ Susan C Lushing, 'Comparative Criminal Justice – Search and Seizure, Interrogation, and Identification of Suspects in India: A Research Note' (1982) 10 Journal of Criminal Justice 239 [https://doi.org/10.1016/0047-2352\(82\)90043-5](https://doi.org/10.1016/0047-2352(82)90043-5).

⁵ Code of Criminal Procedure 1973.

⁶ *Prem Chand v State of Punjab* [1983] Criminal Law Journal 1131 (Punjab-Haryana High Court).

⁷ *Maneka Gandhi v Union of India* [1978] AIR 597 (Supreme Court of India).

⁸ Constitution of India 1949.

⁹ Rustam Singh Thakur, 'Evidentiary Value of Hostile Witness: Chronological Case Law Study to Address Current Position in India' (2011) <<https://api.semanticscholar.org/CorpusID:143337818>>.

¹⁰ *ibid*.

admit that they only signed papers. They did not truly observe the procedure. This creates a gap between what the law expects and what the system delivers.

At the same time, investigation is changing. Digital documentation has become common. Police actions are increasingly recorded through cameras, phones, and electronic systems under e-sakshya. India's new criminal procedure code, the Bharatiya Nagarik Suraksha Sanhita, 2023, reflects this shift. It retains the idea of independent witnesses for searches and also adds a major procedural step. Section 105 requires that the process of search and seizure, including preparation of the seizure list and signatures of witnesses, should be recorded through audio video electronic means, preferably by mobile phone, and the recording must be forwarded without delay to the Magistrate ¹¹.

This paper examines what these developments mean for panch witnesses. It does not argue that artificial intelligence should replace human safeguards. It focuses on functions. Panch witnesses were meant to secure transparency, fairness, and credibility of police procedure. The central question is whether AI assisted systems can help perform those functions better, while respecting constitutional values. The paper proceeds in four steps. It first clarifies the role and limitations of panch witnesses. It then explains what AI means in this context. It next identifies opportunities for supplementation and reform. Finally, it discusses risks and proposes a cautious hybrid model.

A. Research Objectives

This paper seeks to achieve the following objectives:

1. To examine the normative purpose and legal foundations of the panch witness within Indian criminal procedure;
2. To analyse the practical limitations and evidentiary challenges associated with the existing panch witness system;
3. To evaluate the role of artificial intelligence assisted mechanisms in supplementing procedural safeguards during searches and seizures;

¹¹ Bharatiya Nagarik Suraksha Sanhita 2023.

4. To propose a structured hybrid model that balances technological assistance with human oversight.

B. Research Questions

The paper is guided by the following research questions:

1. What functions do panch witnesses serve within the framework of criminal procedure?
2. To what extent do practical realities undermine the effectiveness of this institution?
3. Can artificial intelligence assisted systems supplement the functions of transparency, credibility, and procedural verification traditionally assigned to panch witnesses?
4. How can a hybrid procedural model be designed to balance technology and human oversight?

C. Research Methodology

This paper adopts a doctrinal and analytical research methodology. It relies on the examination of statutory provisions, including the Code of Criminal Procedure, 1973, the Bharatiya Nagarik Suraksha Sanhita, 2023, and the Bharatiya Sakshya Adhiniyam, 2023, along with relevant judicial decisions of the Supreme Court and High Courts. Secondary sources such as scholarly articles, legal commentaries, and policy documents have also been consulted to analyse the evolving role of artificial intelligence in criminal procedure. The study is primarily normative and evaluative in nature, focusing on the interaction between traditional procedural safeguards and emerging technological frameworks.

IV. PANCH WITNESSES IN CRIMINAL PROCEDURE: PURPOSE AND PRACTICAL REALITIES

A. Normative role

The panch witness is best understood as a procedural check.¹² The witness is not primarily called to prove guilt. The witness is called to confirm how police power was

¹² Lushing (n 3).

exercised. When a search is conducted and articles are seized, a list is prepared. The witness signs it. In principle, this signature is not a mere form. It signals that the witness saw the procedure and can later testify about it. The underlying idea is public participation in policing.¹³ The public is not merely a passive recipient of criminal justice outcomes. The public is also a participant in procedural accountability.

Section 100 of the CrPC embodied this logic. It required the calling of independent and respectable inhabitants to attend and witness the search. It also provided that such persons shall not be required to attend the court unless specially summoned. This design tries to balance transparency with practicality. It recognises that witnesses should not be harassed by routine court attendance. Courts can summon them when needed.

The BNSS carries forward this approach. A similar requirement is reflected in Section 103(4) of the BNSS, which again speaks of calling upon two or more independent and respectable inhabitants for witnessing a search. The continuity matters. It shows that lawmakers still see independent witnessing as valuable.

B. Practical challenges

Despite its normative logic, the system faces recurring problems.

First are reluctance and non-availability. Many citizens do not want to be involved. They anticipate inconvenience. They fear police pressure.¹⁴ They also fear retaliation by accused persons or their associates.¹⁵ In urban areas, anonymity and mobility further reduce willingness. In rural settings, social hierarchies can make refusal difficult, which can also compromise independence.

Second is the phenomenon often described in litigation as “stock witnesses.” When investigators repeatedly use familiar persons, the witness ceases to represent independent community oversight. The witness becomes part of an institutional routine. This creates suspicion, even when the police acted lawfully.¹⁶

¹³ Hydervali (n 1).

¹⁴ Thakur (n 8).

¹⁵ *ibid*.

¹⁶ Ayushi, ‘A Study on Supreme Court Decision on Stock Witness’ (2021) 4 International Journal of Law Management & Humanities <<https://doi.org/10.1000/IJLMH.11563>>.

Third is formalistic compliance. Panch witnesses may be associated with the procedure in a perfunctory manner rather than as genuine observers. In some cases, witnesses have admitted during cross examination that they signed seizure memos without fully observing the search or understanding the contents of the document. The Supreme Court has taken note of such practices, observing that where independent witnesses merely sign as attestors without actually witnessing the recovery, the evidentiary value of the seizure is significantly weakened. In such situations, the safeguard risks collapsing into a matter of paperwork rather than meaningful procedural oversight.¹⁷

Fourth is post facto reconstruction. Investigations take time. Trials take longer. When witnesses are examined after long delays, memory fades.¹⁸ This creates space for inconsistency. It also creates space for claims that the witness did not really observe the procedure. In that setting, the court is left with police testimony and documents. This is not inherently unacceptable, but it weakens the idea of independent oversight.

C. Judicial discomfort and evidentiary dilution

Courts have repeatedly expressed caution in cases where the prosecution claims independent witnesses were present but those witnesses do not support the prosecution, or admit they merely signed documents. Recently, the Supreme Court noted that seizure witnesses turned hostile and stated they were made to sign seizure memos at the insistence of the officer, with some signing at the police station. The Court held that in such circumstances the seizure loses credibility, and the stand alone evidence of the investigating officer on seizure could not be treated as conclusive or convincing.¹⁹

This does not mean courts require independent witnesses in every case as a rigid rule. It does mean courts become careful when the prosecution itself relies on the narrative of independent witnessing but the witness testimony undermines that narrative. The

¹⁷ *Manoj Kumar Soni v The State of Madhya Pradesh* [2023] Supreme Court CRIMINAL APPEAL NO.1030/2023.

¹⁸ Neeraj Malik, 'WITNESS RELIABILITY IN CRIMINAL TRIALS' (2024) 5 *ShodhKosh: Journal of Visual and Performing Arts* 912 <<https://doi.org/10.29121/shodhkosh.v5.i1.2024.2279>>.

¹⁹ *Manoj Kumar Soni v. The State of Madhya Pradesh* (n 16).

practical result is a credibility problem. The panch witness institution is still part of the law, but its ability to serve its intended function has weakened in many settings.

This is where technology enters. The goal is not to discard the panch witness. The goal is to restore the function of transparency and credibility through additional procedural supports.

V. WHAT ARTIFICIAL INTELLIGENCE MEANS HERE

Many legal discussions become confused at the point where digital tools are described as artificial intelligence.²⁰ It is important to separate three layers.

First layer is digital recording. A phone camera recording a search is not AI. A device storing time and location data is also not AI. These are basic digital functions.²¹

Second layer is verification and management of digital records. Here, AI can become relevant. AI refers to computer systems that can detect patterns, flag anomalies, and automate certain checks.²² In criminal procedure, this could mean detecting signs that a video has been edited, checking whether a file's metadata aligns with its claimed origin, and monitoring access logs to a digital evidence repository.²³

Third layer is procedural analytics. AI systems can be designed to assist with routine procedural compliance.²⁴ For example, they can guide an officer through a checklist during a search. They can generate time stamped logs. They can flag missing steps. They can also assist supervisors and courts by presenting an audit trail of actions and the sequence in which they occurred.

This paper uses the term AI in the second and third sense. It claims that AI can strengthen the reliability and probative value of digital documentation through authentication, anomaly detection, and structured procedural logging. At the same

²⁰ Harry Surden, 'Artificial Intelligence and Law: An Overview' (2019) 35 Georgia State University Law Review <<https://readingroom.law.gsu.edu/gsulr/vol35/iss4/8>>.

²¹ Eoghan Casey, *Digital Evidence and Computer Crime: Forensic Science, Computers and the Internet* (Third edition, Academic Press 2011).

²² Ian Goodfellow, Yoshua Bengio and Aaron Courville, *Deep Learning* (MIT Press 2016).

²³ Shubham Handa and Shailja Thakur, 'Role of Artificial Intelligence in Admissibility of Electronic Evidence' (2024) 5 International Journal of Research Publication and Reviews.

²⁴ Rahul Vadisetty, Anand Polamarasetti and Madhava Rao Kunchala, 'Automated AI Systems for Legal Compliance Monitoring in Regulated Industries' in Mohuya Chakraborty, Shambhu Prasad Chakraborty and Althaf Marsoof (eds), *Proceedings of Sixth International Ethical Hacking Conference* (Springer Nature 2026) <https://doi.org/10.1007/978-981-96-8632-2_25>.

time, it is important to note that the legal treatment of such distinctions is not fully settled. Indian evidence law does not formally distinguish between different layers of digital and AI assisted processes. Under the Bharatiya Sakshya Adhiniyam, 2023, electronic records are assessed primarily through standards of authenticity and reliability rather than the technological complexity of the system used to generate or analyse them. This creates an interpretive space in which AI assisted outputs may be treated as part of the broader category of electronic evidence, subject to statutory requirements and judicial scrutiny.

VI. OPPORTUNITIES: HOW AI ASSISTED SYSTEMS CAN SUPPLEMENT PANCH WITNESSES

When searches and seizures are recorded, the court has a direct window into the procedure. The BNSS explicitly moves in this direction through Section 105, which requires audio video recording of search and seizure processes and prompt forwarding of the recording to a Magistrate. This is a structural shift. A panch witness can still testify, but the testimony can be tested against the recording. AI can further refine this procedure.

A. AI Assisted Authentication: Ensuring the Record Is Genuine

The first concern with recorded procedure is authenticity. A recording has value only if the court can trust that it has not been altered.²⁵ Digital files can be edited or selectively presented, and such manipulation may not always be visible to the human eye. AI assisted authentication tools respond to this concern by examining the internal structure of audio and video files ²⁶. They can detect irregularities such as missing segments, abrupt transitions, or signs that parts of the file were modified after creation.²⁷

For criminal courts, the importance of this function lies in assurance. The court does not need to understand how the analysis works in technical terms. What matters is

²⁵ Shubham Handa and Shailja Thakur (n 22).

²⁶ Abdul Rehman Javed and others, 'A Comprehensive Survey on Digital Video Forensics: Taxonomy, Challenges, and Future Directions' (2021) 106 Engineering Applications of Artificial Intelligence 104456 <<https://doi.org/10.1016/j.engappai.2021.104456>>.

²⁷ *ibid*.

that the prosecution is able to demonstrate that the record placed before the court is complete and intact. This assurance serves the same purpose that panch witnesses were meant to serve, namely to prevent fabrication after the event. AI assisted authentication therefore strengthens confidence in recorded procedure without replacing human testimony.

B. AI Assisted Sequencing: Reconstructing What Happened and When

A second and separate problem in criminal investigations concerns sequence. Disputes often arise not about whether something occurred, but about when it occurred and in what order. Panch witnesses are expected to recall these details, sometimes years after the event. Artificial intelligence assisted systems address this difficulty by organising recorded material into a coherent procedural timeline.²⁸

Through analysis of time stamps and related data, AI assisted systems can reconstruct the order in which key steps occurred during a search or seizure.²⁹ This makes it possible to assess whether documents were prepared at the spot or later, and whether the procedure unfolded as claimed. The value of this function lies in clarity. Instead of relying entirely on human memory, the court can examine an organised sequence of recorded events. This reduces uncertainty and limits the scope for procedural reconstruction after the fact.

C. AI Assisted Custody Management: Tracking How the Record Was Handled

A third weakness in traditional practice emerges after the procedure is complete. Once a panchnama is prepared, the court has little visibility into how the document or evidence was handled until trial. AI assisted custody management systems address this gap by maintaining a continuous record of how digital material is stored, accessed, and transferred.³⁰

Such systems generate logs that record when a file was uploaded, who accessed it, and whether it was forwarded to a judicial authority as required. This creates

²⁸ Shaina Santosh Das and others, 'An Advancement in Forensic and Criminal Investigation Through Artificial Intelligence' 2023 OITS International Conference on Information Technology (OCIT) (2023) <<https://doi.org/10.1109/OCIT59427.2023.10431257>> accessed 20 January 2026.

²⁹ Shubham Handa and Shailja Thakur (n 22).

³⁰ *ibid.*

accountability beyond the moment of seizure. For courts, this is important because credibility depends not only on how evidence was collected, but also on how it was preserved. When the handling of records is traceable, the risk of manipulation is reduced. This strengthens procedural trust in a way that panch witnessing alone cannot achieve.

D. AI Assisted Compliance Support: Aligning Procedure with Evidence Law

Finally, recorded procedure must meet the requirements of evidence law before it can be relied upon in court. Electronic records are admissible only when conditions relating to authenticity and reliability are satisfied. AI assisted systems support this process by helping generate and preserve the information required to demonstrate compliance.³¹

When procedural steps are recorded, verified, and logged in a structured manner, it becomes easier for courts to assess whether statutory requirements have been met. Panch witnesses continue to play a role as human observers, while AI assisted systems help ensure that the procedural record meets legal standards. This alignment reduces evidentiary disputes and reinforces the credibility of both human and technological safeguards.

However, the evidentiary value of recorded and AI assisted material depends on its admissibility under evidence law. Under Section 65B of the Indian Evidence Act, 1872, and its corresponding framework under the Bharatiya Sakshya Adhiniyam, 2023, electronic records are admissible only when conditions relating to authenticity, integrity, and proper certification are satisfied.³² The Supreme Court in *Arjun Panditrao Khotkar v. Kailash Kushanrao Goratyal* clarified that compliance with these requirements is mandatory, and that electronic evidence cannot be relied upon unless the statutory framework is followed.³³ This has direct implications for AI assisted systems. Even if such systems enhance reliability, their outputs must still satisfy the legal standards governing electronic records. AI therefore operates within, and not outside, the existing evidentiary framework.

³¹ *ibid.*

³² Bharatiya Sakshya Adhiniyam 2023.

³³ *Arjun Panditrao Khotkar v Kailash Kushanrao Gorantyal* (2020) 7 SCC 1 (Supreme Court).

VII. REFORMING THE ROLE OF PANCH WITNESS

While AI assisted systems can supplement existing procedural safeguards, their more significant impact lies in how they enable a rethinking of the role performed by panch witnesses within criminal investigations. Any such reconfiguration must be evaluated against constitutional guarantees. The presence of independent witnesses during searches and seizures has historically functioned as a safeguard against arbitrary exercise of police power. Its dilution therefore raises concerns under Article 21 of the Constitution, which guarantees a fair, just, and reasonable procedure. The Supreme Court has recognised that fair investigation is an integral component of criminal procedure and is closely connected with the preservation of the fundamental right to life and personal liberty under Article 21.³⁴ If technological systems are used to supplement or restructure the role of panch witnesses, they must enhance, and not dilute, procedural fairness. The constitutional requirement is not the preservation of a particular form, but the protection of substantive fairness.

1. Shifting the panch witness from attestor to observer of key moments

A common failure point is that the panch witness becomes a signature provider. Reform should reduce the importance of signature and increase the importance of actual observation. Artificial intelligence assisted recording and analysis allow this formalistic approach to be corrected. When procedural acts are digitally recorded and structured, AI assisted systems can identify and organise key stages of the investigation, such as entry into the premises, opening of secured spaces, discovery of articles, sealing of material, and preparation of records. The panch witness provides human contextual assurance. Together they strengthen credibility.

2. Reducing dependence on reluctant public participation

If AI assisted systems can reliably document procedure, the system can reduce the burden placed on citizens. This does not mean eliminating panch witnesses. It means using them more selectively and meaningfully. For example, in high-risk searches, panch witnessing can remain essential. In routine seizures, recorded procedure and

³⁴ Nirmal Singh Kahlon v State of Punjab (2009) 1 SCC 441 (Supreme Court); Babubhai v State of Gujarat (2010) 12 SCC 254 (Supreme Court).

secure logs might provide sufficient transparency. The distinction between high risk and routine seizures, however, cannot be left undefined. It may depend on factors such as the seriousness of the offence, the likelihood of evidentiary dispute, the vulnerability of the accused, and the nature of the premises being searched. In situations where the risk of abuse, coercion, or evidentiary manipulation is low, recorded procedure and secure logs may provide sufficient transparency. However, the determination of such categories must be guided by clear legal and administrative standards rather than unguided discretion. This reduces the number of citizens dragged into repeated court processes and may improve willingness in cases where their presence is truly needed.

3. Enhancing supervisory accountability

Reform is also about institutional discipline. AI assisted procedural logging allows supervisors to audit whether officers consistently follow required steps.³⁵ If officers know that recordings must be forwarded to a Magistrate and logs will show delay or manipulation, incentives change. This can reduce the culture of post facto paperwork. It can also reduce the pressure on panch witnesses to sign without understanding.

4. Standardising procedure

One promise of technology is standardisation. Standardisation can reduce arbitrariness. But criminal procedure must remain sensitive to context. A hybrid model can preserve discretion where needed but enforce documentation where discretion is risky. Panch witnesses can continue to represent community oversight, while AI assisted systems enforce consistent procedural recording and verification.

VIII. CHALLENGES AND RISKS

AI is not neutral, and technology can create new vulnerabilities. Firstly, here is a risk that courts and investigators treat digital records as automatically truthful. A recording is powerful, but it still has limits. The camera has an angle. The officer controls when to start and stop. A recording can omit context. AI based verification

³⁵ Avantika Bhor and Renu Mahajan, 'The Future of Law Enforcement: Integrating AI and Human Intelligence' (2024) 5 International Journal of Research Publication and Reviews <<https://ijrpr.com/uploads/V5ISSUE10/IJRPR34098.pdf>>.

tools can also be treated as infallible even when they are probabilistic.³⁶ A criminal court must resist the illusion that technology ends doubt. It can reduce doubt, but it cannot eliminate the need for careful judicial evaluation. The role of the court remains one of critical evaluation, not technological deference.

Secondly, AI systems are often hard to explain to non-experts.³⁷ This creates a due process challenge. If the prosecution relies on an AI assisted authenticity tool, the defence should be able to challenge it. If the method is opaque, challenge becomes difficult. This is not merely a technical concern. It is a fairness concern. Criminal trials require that evidence be testable through cross examination and reasoned evaluation. Well- resourced defendants may be able to engage technical experts to question the reliability of AI based authentication or analysis, while marginalised accused persons may lack such capacity. This creates a risk of asymmetry in the ability to contest evidence, potentially implicating the guarantee of equality before law under Article 14 of the Constitution. If AI assisted systems become part of criminal adjudication, the legal system must ensure that mechanisms for meaningful challenge are accessible to all accused persons, not only to those with resources.

Thirdly, Digital evidence can be manipulated. Even if sophisticated tamper detection exists, systems can fail.³⁸ There can also be selective production. An officer may record only part of the process. The absence of recording for critical parts may itself be suspicious. A legal framework must address this. It must specify when recording is mandatory, what minimum content is required, and what consequences follow when recording is missing without reasonable cause.

Also, recording searches and seizures can intrude into private life. Homes contain intimate information. Phones contain personal data. Broad recording and storage can create surveillance risks. If recordings are stored and shared without safeguards, privacy can be violated. This risk must be addressed through strict access controls, retention limits, and penalties for misuse.

³⁶ Shubham Handa and Shailja Thakur (n 22).

³⁷ *ibid.*

³⁸ Avantika Bhor and Renu Mahajan (n 35).

Lastly, technology can exclude. If procedures assume access to devices and stable connectivity, rural areas may suffer. If officers lack training, implementation will be uneven. Indian experience with judicially mandated recording safeguards already illustrates this difficulty. In *Paramvir Singh Saini v Baljit Singh*, the Supreme Court directed the installation of CCTV cameras in police stations and investigative agencies, but the proceedings also revealed gaps in compliance, including inadequate disclosure by several States regarding the actual position of CCTV installation in police stations.³⁹ This demonstrates that technological safeguards do not become effective merely because they are mandated in law or by judicial order. If courts in some regions treat digital evidence as superior and in others treat it as suspicious, outcomes may vary. Reform must therefore be accompanied by capacity building, compliance monitoring, budgetary support, and clear standards.

IX. SUGGESTIONS AND RECOMMENDATIONS

The most defensible approach is neither pure reliance on panch witnesses nor pure reliance on technology. It is a hybrid model that protects functions.

First, law should treat panch witnesses as meaningful observers, not as routine signatories. Their role should be tied to specific procedural moments that are most vulnerable to abuse.

Second, recorded procedure should be implemented as a norm, consistent with BNSS Section 105, with timely forwarding to a Magistrate and secure storage.

Third, AI assisted verification tools should be used as supporting mechanisms, not as unchallengeable authorities. Where such tools are relied upon, their methods should be explainable in court through expert evidence and accessible disclosure. This approach is supported by India's emerging AI governance framework, particularly the India AI Governance Guidelines issued under the IndiaAI Mission, which adopt a principle-based and sector-sensitive approach to AI regulation and emphasise trust, human oversight, fairness, accountability, risk mitigation, and institutional supervision through mechanisms such as the AI Governance Group and the

³⁹ *Paramvir Singh Saini v Baljit Singh* (2020) 7 SCC 397 (Supreme Court).

Technology and Policy Expert Committee.⁴⁰ These principles are especially relevant to AI-assisted procedural tools in criminal investigation, because such systems must be capable of audit, challenge, and meaningful human review before their outputs are relied upon in court.

Fourth, the evidence law framework under the Bharatiya Sakshya Adhiniyam should be operationalised through clear institutional protocols on electronic record admissibility and certification. Fifth, privacy safeguards should be non-negotiable. Access should be strictly logged. Retention should be limited. Misuse should be penalised.

Lastly, reform must include training and capacity building. The effective integration of AI-assisted systems into criminal procedure depends not only on technological availability but also on institutional competence. Investigating officers must be trained to correctly use recording devices, maintain digital evidence integrity, and understand the limits of AI-assisted tools. Prosecutors and defence counsel must be equipped to present and challenge such evidence meaningfully, while judges must be able to assess its reliability without undue deference to technological outputs.

Such a model respects constitutional value. It strengthens transparency without eroding human accountability. It also aligns with the system's direction. The new criminal procedure framework is already moving toward audio video recording of searches and seizures while continuing to recognise independent witnesses. The reform task is to integrate these elements coherently. If the law focuses on functions rather than forms, it can reimagine panch witnesses in a way that remains faithful to constitutional fairness while responding to contemporary investigative realities.

X. CONCLUSION

The institution of the panch witness reflects an important constitutional commitment to transparency and accountability in the exercise of police powers. While its

⁴⁰ Ministry of Electronics and Information Technology, Government of India, *India AI Governance Guidelines: Enabling Safe and Trusted AI Innovation* (IndiaAI Mission, 2025); NITI Aayog, 'Approach Document for India Part 1 – Principles for Responsible AI' (NITI Aayog, Government of India 2021) Approach Document <https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf>.

normative purpose remains compelling, its practical operation has been weakened by issues of non-participation, formalistic compliance, and evidentiary dilution. These challenges have created a gap between the legal ideal of independent witnessing and the realities of criminal investigation.

At the same time, the increasing use of digital recording and artificial intelligence assisted systems presents an opportunity to re-examine how procedural safeguards are designed and implemented. This paper has argued that AI should not be viewed as a replacement for human oversight, but as a tool that can reinforce the core functions that panch witnesses were intended to perform. Through authentication, sequencing, custody tracking, and compliance support, AI assisted systems can enhance the reliability and transparency of investigative processes.

However, the integration of such systems must be approached with caution. Concerns relating to technological over reliance, opacity, inequality in access to challenge, and risks to privacy and due process remain significant. The constitutional framework, particularly the guarantees of fairness and equality, requires that any technological reform strengthens rather than undermines procedural justice.

A carefully designed hybrid model, which combines meaningful human participation with structured technological support, offers the most defensible path forward. Such an approach recognises that the objective of criminal procedure is not to preserve existing forms, but to secure substantive fairness, credibility, and accountability in a changing investigative environment.

XI. BIBLIOGRAPHY

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