

# Regulation of E-Courts in the Administration of Justice: A Critical Analysis of Criminal Courts

**Ms. Palki Vats<sup>1</sup>,**

<sup>1</sup>Research Scholar, School of Law,  
GD Goenka University, India.

**Dr. Nizam Khan<sup>2</sup>**

<sup>2</sup>Associate Professor, School of Law,  
GD Goenka University, India.

## **Abstract:**

The digitization of judicial systems, particularly through the establishment of electronic courts (e-courts), has significantly transformed the administration of justice worldwide. In India, the integration of technology into judicial processes is a progressive step towards enhancing efficiency, accessibility, and transparency in criminal justice delivery. However, the implementation of e-courts presents several challenges, especially in criminal courts where the stakes are high, and procedural fairness is paramount. This paper critically examines the regulation of e-courts within the context of criminal justice administration, evaluating the legal frameworks, practical applications, challenges, and prospects. The paper relies on doctrinal research, judicial pronouncements, policy documents, and comparative international models. It concludes with recommendations for ensuring that the e-courts system strengthens rather than compromises the rights of accused persons and the integrity of the criminal justice process.

## **1. Introduction**

### **Background and Need for E-Courts**

The advent of the digital age has revolutionized traditional institutions, and the judiciary is no exception. The concept of e-courts- courts that use electronic means for filing, processing, and adjudicating cases- emerged as a solution to the burgeoning pendency and delays in the justice delivery system. In India, where millions of cases are pending, the judiciary has increasingly turned to technology to address issues of backlog, procedural inefficiencies, and lack of access.

The National E-Governance Plan (NeGP), launched by the Government of India in 2006, laid the foundation for digitizing various public services, including the judiciary.<sup>1</sup> The E-Courts Project, launched in 2005 under the aegis of the Ministry of Law and Justice and executed by the e-Committee of the Supreme Court, aimed to provide efficient and time-bound citizen-centric services.<sup>2</sup>

The COVID-19 pandemic further accelerated the adoption of digital tools in courts, necessitating remote hearings, virtual filings, and digital evidence management.<sup>3</sup> Despite the advantages, the integration of e-courts into the criminal justice system has raised critical questions regarding procedural fairness, digital divide, privacy, and the fundamental rights of accused individuals.

### **Scope and Objectives**

This research focuses specifically on the regulation and functioning of e-courts in the criminal justice context. The objectives include:

1. Analyzing the legal and institutional framework governing e-courts in India.
2. Evaluating the application of e-courts at various stages of criminal proceedings.
3. Identifying the challenges and risks associated with the use of technology in criminal trials.
4. Comparing India's approach with global best practices.
5. Recommending reforms to ensure the e-court system aligns with constitutional and human rights standards.

### **Research Questions**

1. What are the regulatory and legal mechanisms that govern the functioning of e-courts in India?
2. How are e-courts being utilized in the context of criminal justice, and what are the outcomes?
3. What are the systemic and constitutional challenges associated with e-courts in criminal proceedings?
4. What lessons can be drawn from comparative international practices?

## **2. Methodology**

The research methodology is primarily doctrinal, involving a detailed study of primary and secondary sources, including statutes, judicial decisions, government reports, academic literature, and policy documents. A comparative legal analysis is employed to examine practices from jurisdictions such as the United Kingdom, the United States, and Australia.

## **Evolution of E-Courts in India and Globally**

### **Historical Development**

The transformation of court systems through digital technologies began in the late 20th century, predominantly in developed nations. The United States, for instance, initiated electronic filing systems in the 1990s, which gradually expanded into full-fledged electronic case management systems. In the European Union, the e-Justice initiative was adopted to promote cooperation and standardization in judicial technology across member states.

India's journey toward e-courts formally began in 2005 with the launch of the E-Courts Project. This initiative was part of the broader National e-Governance Plan (NeGP) and was entrusted to the e-Committee of the Supreme Court of India, chaired initially by Justice G.C. Bharuka and later by Justice D.Y. Chandrachud.<sup>4</sup> The project's primary aim was to computerize the judicial system and ensure the delivery of citizen-centric services.

The first phase of the project (2007–2015) focused on creating ICT infrastructure in district and subordinate courts. Over 13,000 courts were computerized, enabling digital case management, filing, and record-keeping. The second phase (2015–2020) emphasized enhancing connectivity, implementing video conferencing facilities, and developing the National Judicial Data Grid (NJDG) to enable real-time data sharing and performance monitoring.

### **Global Best Practices**

Several jurisdictions have successfully implemented e-court systems. In Singapore, the Integrated Electronic Litigation System (iELS) allows end-to-end electronic case handling, from filing to judgment. The United Kingdom has digitized various aspects of its court operations, including a cloud-based Common Platform for criminal cases, introduced under the HMCTS Reform Program.<sup>5</sup>

In the United States, the Public Access to Court Electronic Records (PACER) system enables parties and the public to access federal court documents online.<sup>6</sup> The Federal Rules of Criminal Procedure have been amended to accommodate the electronic handling of case materials, particularly in the wake of the COVID-19 pandemic.<sup>7</sup>

These global practices underscore the importance of clear regulations, robust digital infrastructure, continuous training, and user-friendly platforms to ensure the success of e-courts.

## **Legal Framework Governing E-Courts in India**

The regulation of e-courts in India involves a complex interplay of statutory law, judicial pronouncements, and executive policy initiatives. While India does not have a single comprehensive statute governing e-courts, several existing laws provide the foundation for their operation. These include the Information Technology Act, 2000, the Code of Criminal Procedure, 1973, the Indian Evidence Act, 1872, and various rules framed by the Supreme Court and High Courts under their rule-making powers.

### **Information Technology Act, 2000**

The Information Technology Act, 2000 (IT Act) is the cornerstone of India's legal regime governing electronic governance and digital communication. The Act provides legal recognition to electronic records and digital signatures, thereby enabling the use of electronic documents and processes in judicial proceedings. Sections 4 to 10A of the IT Act<sup>8</sup> are particularly relevant for the recognition of electronic records, digital signatures, and electronic contracts.

Section 65B of the Indian Evidence Act<sup>9</sup>, introduced by the IT Act through an amendment, recognizes the admissibility of electronic records, subject to compliance with specific procedural requirements. This provision has significant implications in criminal trials where electronic evidence, such as CCTV footage or mobile data, is often central to prosecution or defense.

<sup>4</sup> e-Committee, Supreme Court of India, "E-Courts Project Phase II Vision Document," available at <https://ecourts.gov.in/> (last visited Jan. 28, 2025).

<sup>5</sup> HM Courts & Tribunals Service, "HMCTS Reform Programme Update," UK Ministry of Justice (2023).

<sup>6</sup> U.S. Courts, "PACER - Public Access to Court Electronic Records," <https://pacer.uscourts.gov/> (last visited Apr. 28, 2025).

<sup>7</sup> Singapore Judiciary, "Integrated Electronic Litigation System (iELS)," <https://www.judiciary.gov.sg> (last visited Apr. 28, 2025).

<sup>8</sup> The Information Technology Act, 2000

<sup>9</sup> Indian Evidence Act, 1872

### **Code of Criminal Procedure, 1973**

Although the Code of Criminal Procedure, 1973 (CrPC) does not explicitly deal with e-courts, various judicial interpretations and procedural adaptations have facilitated the incorporation of digital mechanisms. Notably, Section 273 of the CrPC mandates that all evidence be taken in the presence of the accused. However, courts have interpreted this provision flexibly to allow for video conferencing in exceptional cases, provided the accused's right to fair trial is not compromised.

The Supreme Court in *State of Maharashtra v. Dr. Praful B. Desai*<sup>10</sup> held that recording of evidence by video conferencing is permissible under Section 273, provided the accused and counsel are able to observe the demeanor of witnesses.

### **Indian Evidence Act, 1872**

The Indian Evidence Act has been amended to accommodate the increasing use of electronic records. Section 3 of the Act, which defines "evidence", now includes electronic records. Section 65A and 65B further provide the procedure for proving such records. The Supreme Court in *Anvar P.V. v. P.K. Basheer*<sup>11</sup> emphasized that strict compliance with Section 65B is mandatory for the admissibility of electronic records.

However, subsequent judgments such as *Shafhi Mohammad v. State of Himachal Pradesh*<sup>12</sup> introduced a more flexible approach, particularly in cases where the electronic record is not available in original form to the party presenting it.

### **Judicial and Administrative Regulations**

The Supreme Court and various High Courts have exercised their rule-making powers to issue guidelines and notifications concerning the functioning of e-courts.<sup>13</sup> For instance, during the COVID-19 pandemic, several High Courts issued protocols for virtual hearings, e-filing, and hybrid court operations.

The Supreme Court's e-Committee has also issued model rules for live streaming of court proceedings and video conferencing.<sup>14</sup> These are intended to harmonize e-court practices across jurisdictions and ensure that technological integration does not undermine due process.

### **E-Courts and Criminal Justice Administration**

The introduction of e-courts has fundamentally reshaped the procedural and practical landscape of criminal justice administration in India. The digital transformation has brought about significant changes across all phases of a criminal case- pre-trial, trial, and post-trial. While technology has facilitated faster access, streamlined case management, and improved transparency, its implications on rights protection and procedural integrity require close scrutiny.

### **Pre-Trial Stage**

At the pre-trial stage, e-courts have enabled significant advancements in e-filing of complaints, digitization of First Information Reports (FIRs), and electronic issuance of summons. Police departments across various states have integrated systems like the Crime and Criminal Tracking Network and Systems (CCTNS) to ensure seamless communication between law enforcement and judicial bodies.

Electronic records and case documents are uploaded to court databases, facilitating quick assignment of cases and enabling timely scrutiny by magistrates. Furthermore, courts now conduct remand proceedings and bail hearings through video conferencing, particularly in situations where transporting the accused to court is impractical or poses a security risk.<sup>15</sup>

Despite these benefits, critics argue that virtual remand proceedings may hinder the accused's ability to consult with legal counsel, potentially infringing on Article 21 rights under the Indian Constitution.

### **Trial Stage**

During the trial phase, e-courts handle various aspects such as examination of witnesses via video conferencing, digital presentation of evidence, and online cross-examinations. These changes have proved especially useful in cases involving witnesses who are at risk, residing abroad, or otherwise unavailable for in-person testimony.

<sup>10</sup> (2003) 4 SCC 601

<sup>11</sup> (2014) 10 SCC 473

<sup>12</sup> (2018) 2 SCC 801

<sup>13</sup> e-Committee, Supreme Court of India, "Model Rules for Video Conferencing for Courts," available at <https://ecourts.gov.in>.

<sup>14</sup> Supreme Court of India, "Guidelines for Live Streaming and Recording of Court Proceedings," (2021).

<sup>15</sup> Ministry of Home Affairs, Government of India, "Crime and Criminal Tracking Network and Systems (CCTNS)," <https://cctns.gov.in>

The Supreme Court in *State of Maharashtra v. Dr. Praful B. Desai*<sup>16</sup> validated video conferencing for witness examination, establishing a precedent that has been widely followed. However, the practice has raised serious questions regarding the assessment of witness demeanor, the possibility of coaching, and technical reliability.

Courts have adopted document management systems that allow judges to annotate digital records, streamline case files, and access real-time updates. Nonetheless, the shift from physical to digital evidence has heightened concerns about data authenticity, manipulation, and cybersecurity, necessitating robust digital forensic protocols.

### **Post-Trial Stage**

Post-conviction, e-courts play an important role in digitized case history management, parole tracking, sentence computation, and coordination with correctional institutions. High Courts have integrated e-prison software, linking jails and courts to ensure prompt communication of judicial orders and sentence-related directives.

The appellate process also benefits from digitization, as records can be transferred instantly to appellate forums, reducing delay and promoting procedural efficiency. Additionally, the publication of judgments and daily orders online enhances judicial transparency and accountability.

However, critics emphasize that complete reliance on digital platforms can marginalize underrepresented communities who lack internet access, digital literacy, or resources to navigate e-court portals.

### **Role of Technology in Criminal Case Management**

The integration of case information systems (CIS) and the National Judicial Data Grid (NJDG) has enabled real-time monitoring of criminal case status, tracking pendency, and generating analytics to assist in judicial planning and reform.<sup>17</sup>

Virtual courtrooms have also been used for compounding minor offenses, facilitating quick resolution without full trials. These measures have decongested courts and allowed judges to focus on more complex and serious criminal matters.

Nevertheless, the risk of overlooking due process in the name of efficiency remains. The digitization drive must be calibrated to ensure that technology enhances, rather than bypasses, procedural safeguards.

### **Critical Analysis: Challenges and Concerns**

While e-courts represent a progressive shift towards modernization and efficiency in the criminal justice system, their implementation has not been without controversy. Several legal, technical, and infrastructural challenges have emerged, threatening to undermine both the efficacy of the system and the fundamental rights of individuals involved in criminal litigation.

### **Digital Divide and Access to Justice**

One of the most significant challenges confronting the e-court system in India is the digital divide. A considerable portion of India's population, particularly in rural and marginalized communities, lacks access to high-speed internet, smart devices, and digital literacy. This creates an asymmetry in the ability to participate effectively in e-court proceedings.<sup>18</sup>

Advocates, litigants, and even some judicial officers in remote areas often struggle with connectivity issues, rendering virtual hearings impractical or ineffective. This exacerbates existing inequalities and threatens to violate Article 14 of the Constitution, which guarantees equality before the law.

### **Fair Trial and Procedural Integrity**

The right to a fair trial, enshrined under Article 21 of the Indian Constitution, is a cornerstone of criminal jurisprudence. E-courts, particularly in their current form, have raised concerns about the dilution of key procedural safeguards. These include the right to effective legal representation, the ability to confront witnesses, and the opportunity to present one's case without undue restrictions.

Virtual hearings can limit the accused's interaction with legal counsel, hinder confidential communication, and impede real-time legal strategy.<sup>19</sup> The assessment of a witness's demeanor- a critical component in criminal trials- becomes particularly difficult over video, potentially affecting judicial interpretation and outcomes

### **Privacy and Cybersecurity Risks**

The transition to digital platforms introduces substantial cybersecurity risks. Courts store vast amounts of sensitive information, including details of criminal investigations, witness testimonies, and personal data of the accused. The risk of data breaches, unauthorized access, and cyberattacks is an ongoing concern.<sup>20</sup>

<sup>16</sup> (2003) 4 SCC 601

<sup>17</sup> National Judicial Data Grid, e-Courts Services, <https://njdg.ecourts.gov.in> (last visited Jan. 28, 2025).

<sup>18</sup> Internet and Mobile Association of India (IAMAI), "Internet in India Report 2023."

<sup>19</sup> *Zahira Habibullah Sheikh v. State of Gujarat*, (2004) 4 SCC 158.

<sup>20</sup> Digital Personal Data Protection Act, No. 22 of 2023 (India).

There are also issues concerning the recording and archiving of virtual hearings. Without proper regulatory oversight, the storage, retrieval, and use of these digital records may be prone to manipulation or misuse.

India currently lacks a comprehensive data protection law, further complicating matters. Although the Digital Personal Data Protection Act, 2023 has been passed, its implementation in judicial domains remains uncertain.<sup>21</sup>

### **Judicial Pronouncements and Case Law Analysis**

Judicial intervention has played a critical role in shaping the legal contours of e-courts in India. A number of landmark cases have clarified the permissibility and limits of technology use in criminal proceedings, helping to align technological practices with constitutional safeguards.

#### **State of Maharashtra v. Dr. Praful B. Desai<sup>22</sup>**

This case was a watershed moment in the recognition of video conferencing as a legitimate method for recording evidence. The Supreme Court held that the term "presence" under Section 273 of the CrPC does not necessarily imply physical presence and can include virtual presence through video conferencing. The Court emphasized that such practices must uphold the principle of a fair trial.

#### **Anvar P.V. v. P.K. Basheer<sup>23</sup>**

In this case, the Supreme Court provided crucial clarity on the admissibility of electronic evidence under Section 65B of the Indian Evidence Act. The Court ruled that any electronic record presented in evidence must be accompanied by a certificate under Section 65B(4), failing which it is inadmissible. This decision reinforced procedural rigor for handling digital records.

#### **Shafhi Mohammad v. State of Himachal Pradesh<sup>24</sup>**

This decision marked a departure from the strict requirements laid down in *Anvar P.V.*, introducing a degree of flexibility in circumstances where electronic evidence is not in the possession of the party submitting it. The Court allowed secondary electronic evidence to be admitted without the Section 65B certificate, provided its authenticity could be otherwise established.

#### **In Re: Guidelines for Court Functioning through Video Conferencing During COVID-19<sup>25</sup>**

Recognizing the urgency of continuing judicial work during the pandemic, the Supreme Court took suo motu cognizance and directed all High Courts to establish video conferencing rules. These guidelines marked a pivotal shift in procedural norms and institutionalized digital hearings across jurisdictions.

#### **Swapnil Tripathi v. Supreme Court of India<sup>26</sup>**

Though not directly about criminal trials, this case had important implications for transparency in judicial proceedings. The Court ruled in favor of live-streaming Supreme Court proceedings in the public interest, reinforcing the value of open courts and public access to justice.

### **3. Recommendations and Way Forward**

To realize the full potential of e-courts in the criminal justice system while safeguarding constitutional and procedural integrity, a multi-pronged and phased approach is necessary. The following recommendations aim to strike a balance between technological innovation and the foundational principles of justice.

#### **1. Enactment of a Comprehensive E-Courts Legislation**

There is a pressing need for a dedicated statute that regulates all aspects of e-courts- ranging from procedural rules and technological standards to privacy protections and data management. This legislation should be framed in consultation with legal experts, technologists, and civil society to ensure that it reflects the diversity and complexity of Indian judicial needs.<sup>27</sup>

<sup>21</sup> *Puttaswamy v. Union of India*, (2017) 10 SCC 1.

<sup>22</sup> (2003) 4 SCC 601

<sup>23</sup> (2014) 10 SCC 473

<sup>24</sup> (2018) 2 SCC 801.

<sup>25</sup> *Suo Motu Writ (Civil) No. 5 of 2020*.

<sup>26</sup> (2018) 10 SCC 639

<sup>27</sup> Vidhi Centre for Legal Policy, "Towards a Framework for E-Courts in India," Policy Brief (2021).

## **2. Bridging the Digital Divide**

Addressing the digital divide should be central to any e-court reform agenda. The government, in collaboration with the judiciary, should invest in high-speed internet infrastructure, digital literacy programs, and subsidized access to devices in rural and underprivileged areas. Special kiosks or digital access centers in court premises can be developed for those without personal connectivity.

## **3. Strengthening Data Protection and Cybersecurity**

The integration of e-courts must be accompanied by robust cybersecurity protocols and compliance mechanisms aligned with the Digital Personal Data Protection Act, 2023. Judicial data repositories should be governed by strict access controls, encryption standards, and regular audits.<sup>28</sup>

Additionally, there should be clear guidelines on the retention, deletion, and usage of digital court records.

## **4. Uniformity in E-Court Practices Across Jurisdictions**

To avoid confusion and ensure procedural consistency, the Supreme Court should consider formulating national model rules for e-courts, similar to the existing model rules for video conferencing. These rules should encompass e-filing procedures, virtual hearing etiquette, digital documentation, and electronic evidence standards.

Inter-operability among state judiciary systems should also be prioritized.

## **5. Enhancing Training and Capacity Building**

Judges, lawyers, and court staff should undergo continuous training in legal technology, cyber law, and digital tools. Judicial academies should revise their curriculum to incorporate regular modules on digital literacy and courtroom technology management.

Peer-learning workshops and pilot projects in select districts can also build familiarity and comfort with technological tools.

## **6. Safeguarding Fair Trial Rights**

The e-court infrastructure must be designed in a way that respects the rights of the accused. This includes ensuring confidential lawyer-client communication during virtual proceedings, the physical presence option where necessary, and tools for meaningful cross-examination of witnesses.

Monitoring bodies or ombudspersons may be appointed to audit virtual hearings and report on procedural compliance and fairness.

## **7. Institutionalizing Transparency and Accountability**

E-courts should enhance transparency through real-time cause lists, online case status tracking, and public access to non-sensitive judgments. At the same time, mechanisms for feedback, grievance redressal, and independent oversight of digital judicial processes must be institutionalized.

## **8. Encouraging Innovation and Public-Private Partnerships**

Partnerships with academic institutions, technology companies, and NGOs can foster innovation in legal tech. These collaborations can help design user-friendly court portals, AI-based case management systems, and multilingual interfaces that serve India's diverse population.

Funding mechanisms like Corporate Social Responsibility (CSR) or special technology grants can be explored to finance innovation in e-courts.

## **4. Conclusion**

The emergence of e-courts represents a transformative shift in the Indian judicial landscape, especially in the realm of criminal justice. By integrating information and communication technologies into courtroom procedures, e-courts offer the promise of improved efficiency, accessibility, and transparency. They are crucial in addressing long-standing issues such as case backlogs, logistical delays, and the underutilization of judicial resources. However, the transition must be managed with caution and clarity.

This paper has highlighted that while e-courts have enabled virtual hearings, streamlined filings, and expedited evidence management, they have also posed significant challenges. The digital divide continues to marginalize underprivileged litigants, and the lack of uniform legal frameworks creates procedural ambiguity. Concerns over fair trial rights, cybersecurity vulnerabilities, and the readiness of judicial personnel further complicate the integration of technology in criminal trials.

<sup>28</sup> Ministry of Electronics and Information Technology, "National Cyber Security Policy 2020 (Draft)."

Judicial pronouncements have played a proactive role in legitimizing and guiding the use of digital tools within constitutional boundaries. Yet, ad hoc responses and fragmented policy directives are insufficient to ensure long-term sustainability and integrity of the e-court system. The need of the hour is a comprehensive, rights-based approach that safeguards due process, ensures digital inclusivity, and leverages technology in a balanced and thoughtful manner. Ultimately, e-courts must not be viewed merely as tools of administrative convenience but as instruments of justice that uphold the dignity and rights of every individual—accused and victim alike. For e-courts to truly transform the administration of criminal justice in India, reforms must be deep-rooted, inclusive, and guided by the principles of fairness, accountability, and transparency.