



AI IN SENTENCING AND PAROLE: JUDICIAL DISCRETION AND PRISONER RIGHTS

-Deepak Chahal

Punjabi University ,Patiala

Submission date 12.04.2026 | Acceptance date: 25.04.2026 | Publication: 29.05.2026

ABSTRACT

The implementation of Artificial Intelligence (AI)-based risk assessment tools for sentencing and parole decisions represents a major transformation of the Indian criminal justice system. The implementation of these technologies creates substantial constitutional problems because they violate judicial discretion and due process rights while restricting prisoner rights. The paper conducts critical analysis to study the validity of AI-assisted sentencing and parole systems under Articles 14 and 21 of the Constitution of India.

The paper uses a doctrinal and comparative approach to study sentencing principles and parole jurisprudence and global standards for algorithmic risk assessment. The paper evaluates how opaque algorithms create risks of systemic bias and undermine individualized justice and decrease the necessary human element for judicial decision-making. The paper examines how prisoners lose their rights to a fair hearing and transparency and the ability to contest adverse algorithmic outcomes.

The article believes that AI is suitable to act only like a helping method, but not a final judgment in the process of sentencing and paroles. The article recommends constitutional safeguards and transparency requirements together with judicial oversight to ensure that AI technology will enhance justice delivery while protecting fundamental rights.

Keywords:

Artificial Intelligence; Sentencing and Parole; Judicial Discretion; Prisoner Rights; Constitutional Due Process

1. Introduction

Artificial Intelligence (AI) technologies have developed at an accelerated pace which now changes multiple aspects of governmental operations. Tools powered by artificial intelligence are finding more and more applications in assisting with judicial decision-making procedures, including risk assessment, parole evaluations, predictive policing, and sentencing analysis. In order to predict the likelihood of recidivism, the technology examines demographic data, behavioral tendencies, and criminal histories using data analytics and machine learning algorithms. The tools provide efficient decision-making and consistent outcomes but their use in the justice system creates various legal and constitutional challenges.



Multiple regions throughout the world have conducted tests with algorithm-based risk evaluation tools to assist judges during sentencing and parole hearings. The United States court system employs the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) tool to predict how likely offenders will commit new crimes. The tools deliver data-driven insights about offender risk levels to help judges and parole boards make their decisions. Supporters of algorithmic systems believe these technologies will decrease human sentencing bias while creating equal treatment for all defendants. The systems function as black boxes that prevent users from understanding their decision-making process while achieving results that depend on biased data sets

AI-based sentencing tools have not been officially adopted by Indian courts yet. The Indian judicial system is moving toward digital court operations and increased technological adoption which will bring about these developments. The e-Courts project and rising legal analytics adoption demonstrate how the judiciary is starting to use technology for its decision-making process. India needs to assess whether its legal system can implement AI-based tools because the country is studying ways to incorporate artificial intelligence into its justice system.

The application of artificial intelligence to parole and sentencing decisions creates fundamental constitutional problems which affect the core principles of justice and transparency and evaluative responsibility. The Supreme Court of India interprets Article 21 of the Indian Constitution which protects the right to life and personal liberty as requiring both procedural fairness and due process rights together with Article 14 which guarantees equality before the law to protect people from arbitrary government actions. The implementation of concealed algorithmic systems within criminal justice systems creates a situation where individuals will lose their constitutional rights because they lack the ability to understand or challenge or examine the technological systems that determine their freedom¹

The research investigates how artificial intelligence (AI) risk assessment tools will impact the decision-making process of parole and sentencing in the Indian criminal justice system. The paper investigates how algorithm-based decision systems create conflicts with judicial decision-making processes while assessing their effects on prisoner rights and constitutional protections. The research uses doctrinal research methods together with comparative research methods to study AI-assisted sentencing practices from different countries while identifying essential legal protections which need to exist for technological progress to safeguard basic rights and fair criminal trial processes.²

2. Conceptual Framework: AI and Algorithmic Decision-Making in Criminal Justice

2.1 Meaning and Nature of Artificial Intelligence in Legal Systems

The term "artificial intelligence" (AI) describes computer programmes that can learn and recognise patterns and make predictions, as well as assist with legal research, case analysis, document review, and decision-making systems. The programs use machine learning algorithms to analyse extensive

¹ Maneka Gandhi v. Union of India, AIR 1978 SC 597.

² Ministry of Law and Justice, National Policy and Action Plan for Implementation of Information and Communication Technology in the Indian Judiciary (Government of India, New Delhi, 2019).



datasets which enable them to identify relationships between different variables and produce predictions together with recommendations for future actions.

Institutions which operate criminal justice systems currently investigate the potential of artificial intelligence to help them achieve better operational results and uniformity during their decision-making activities. The criminal justice system generates extensive information which includes criminal records and sentencing practices and information about offender conduct. AI systems can process such data to identify trends and assist authorities in evaluating the risk of reoffending or determining appropriate sentencing outcomes. Algorithmic systems operate through statistical models which differ from traditional legal reasoning that depends on judicial interpretation and contextual understanding. The difference between the two methods creates crucial issues about how well justice system technology can duplicate or enhance human decision-making abilities³

The AI legal tools use complex algorithms which judges and lawyers and defendants find difficult to comprehend. The legal system faces obstacles because the black box problem creates transparency and accountability problems in judicial decision making. The systems need human supervision and constitutional assessment to maintain their legitimacy because they use algorithms to decide matters that impact a person's freedom.

2.2 Risk Assessment Algorithms and Predictive Justice

AI risk assessment algorithms currently represent one of the most extensively studied artificial intelligence applications which the criminal justice system employs. The tools utilize historical crime records together with offender characteristics and their behavioral patterns to determine future crime probability for each individual. The systems operate under a concept which people commonly call "predictive justice" because they use data-based models to predict criminal risk and make decisions about bail and sentencing and parole.

Risk assessment instruments assess various factors which include criminal history records and a person's age and their employment situation and their social background. The algorithm generates a risk score through statistical modelling which combines these variables to show recidivism probability. Proponents of these tools claim they create uniform results which decrease personal bias during court proceedings. The critics of predictive systems argue that these systems will perpetuate existing social disparities because the training datasets reflect historical patterns of discrimination

The main problem with algorithmic forecasts exists because they depend on probabilistic reasoning instead of assessing individual cases. Decisions on criminal sentencing have historically hinged on the particulars of the case, the offender's degree of guilt, and the concepts of appropriate punishment. The judicial system faces a risk because excessive use of predictive algorithms will direct attention away from personal justice needs and toward managing statistical dangers which will damage essential criminal law principles.⁴

2.3 Global Trends in AI-Assisted Sentencing and Parole

³ Mireille Hildebrandt, *Law for Computer Scientists and Other Folk* (Oxford University Press, 2020).

⁴ Andrew Ashworth and Jeremy Horder, *Principles of Criminal Law* (7th edn., Oxford University Press, 2013).



Several countries have conducted experiments with AI-assisted technology to support their criminal justice decision-making processes. The United States uses algorithmic risk assessment systems including the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) system to help courts make sentencing and bail determinations. The tools deliver risk scores to judges which help them estimate an offender's chance of committing future crimes and this information guides their judicial decision-making process.⁵

European jurisdictions have approached AI implementation in criminal justice systems with more caution than other regions. The European Union establishes algorithmic decision-making standards through its new regulatory frameworks which require organizations to maintain transparent operations while holding their systems accountable and implementing human control mechanisms. The developments demonstrate that public governance AI systems must operate according to basic rights and due process standards in order to meet essential compliance requirements.⁶

Active discussions about AI technology usage in criminal justice systems worldwide are taking place throughout the world. The implementation of technological tools leads to better administrative operations and data-driven insights, yet their use creates ethical and constitutional issues which affect fairness and transparency and individual rights protection. Different jurisdictions that use AI-assisted decision-making systems face difficulties because they must maintain essential justice values while adopting new technological advancements.

3. Sentencing and Parole Jurisprudence in India

3.1 Principles of Sentencing in Indian Criminal Law

Because they determine the penalties that will be applied to individuals who have been found guilty of crimes, sentences play a crucial role in the criminal justice system. The Indian legal system bases its sentencing practices on statutory laws, court decisions, and established criminal law principles. The main goals of sentencing which have existed since ancient times include deterrence and retribution and rehabilitation and the protection of society. The courts attempt to achieve these goals while they determine punishments which match both the seriousness of the crime and the level of responsibility shown by the criminal.

Indian criminal law gives judges complete authority to choose suitable punishments from statutory boundaries which exist in Bharatiya Nyaya Sanhita 2023 and various special laws. The discretionary method used by courts permits them to assess multiple elements which include both the crime's characteristics and the conditions under which it was carried out and the personal history of the defendant. The Supreme Court has established that courts must use proportionality as their fundamental principle when determining sentences which must result in punishments that do not exceed maximum severity nor fall below minimum required standards⁷

The criminal justice system needs case-by-case assessment because there are no binding sentencing rules. Judges must evaluate aggravating factors and mitigating factors to reach their final decision on

⁵ *State v. Loomis*, 881 N.W.2d 749 (Wisconsin Supreme Court, 2016).

⁶ European Commission, Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act), COM/2021/206 Final.

⁷ *Alister Anthony Pareira v. State of Maharashtra*, (2012) 2 SCC 648.



sentencing. The judicial system uses this method to protect both the needs of society and the legal rights of defendants.

3.2 Judicial Discretion in Sentencing Decisions

Judicial discretion functions as the core component for sentencing procedures which operate through the Indian legal system. Courts have the power to select suitable penalties according to the restrictions established by criminal law. Judges use this power to assess every individual case and create specific penalties which fit that case's unique details. The Supreme Court system established a fundamental principle which judges must follow when determining sentences because this process demands complete understanding of legal standards and actual events and their effects on society.⁸

The Supreme Court established the "rarest of rare" rule for death penalty cases because *Bachan Singh v. State of Punjab* demonstrated how judicial discretion holds vital importance for the legal system. The Court established that judges must evaluate all aggravating and mitigating evidence during sentencing processes to maintain fair and just outcomes. The Court declared that Indian judges must use their discretion when sentencing because the country lacks complete sentencing guidelines according to its ruling in *State of Punjab v. Prem Sagar*.⁹

The judicial system enables judges to exercise discretion which leads to customized legal outcomes yet this practice creates two main issues because it produces inconsistent results and judges apply their personal judgment to select penalties. The different sentencing methods used by various courts lead to discussions about establishing formal rules which will help achieve standardization across all legal proceedings. The Indian criminal justice system still depends on judicial discretion because it enables judges to deliver justice based on the specific details of each case.

3.3 Legal Framework Governing Parole and Prison Administration in India

Parole serves as a crucial tool for prison management because it permits convicted inmates to exit their facilities for designated times while observing particular rules. Parole seeks three main goals which include helping inmates to rebuild their lives through rehabilitation and enabling them to maintain connections with their families while helping them to return to their communities. In India, parole functions under prison regulations which the Prisons Act of 1894 establishes together with state-specific prison guidelines and administrative rules.

The Supreme Court has recognized parole as an important reformative measure that complies with constitutional requirements for human dignity. The Court ruled in *Sunil Batra v. Delhi Administration* that prisoners retain their basic rights under Article 21 of the Constitution while prison authorities must follow constitutional rules to manage their facilities.¹⁰ Similarly, in *Asfaq v. State of Rajasthan*, the Court determined that parole must be granted for situations which meet appropriate criteria because this practice serves as a fundamental element of modern penological rehabilitation.¹¹

⁸ *Soman v. State of Kerala*, (2013) 11 SCC 382.

⁹ *State of Punjab v. Prem Sagar*, (2008) 7 SCC 550.

¹⁰ *Sunil Batra v. Delhi Administration*, AIR 1978 SC 1675.

¹¹ *Asfaq v. State of Rajasthan*, (2017) 15 SCC 55.



The Indian parole system operates according to administration-based rules which grant prison staff and state authorities the authority to make parole decisions. Parole eligibility requires assessment of three main factors which include the offense details and the inmate's conduct and the need for prison security. The system delivers operational flexibility but creates operational issues because it lacks two essential components which include complete transparency and standardized procedures and equitable treatment of all parties. The implementation of technological solutions for criminal justice transformation in India creates difficulties which require thorough examination from both legal and constitutional perspectives.

4. AI-Based Risk Assessment Tools in Sentencing and Parole

4.1 Predictive Policing and Risk Assessment Instruments

Law enforcement agencies now use Artificial Intelligence for criminal justice systems which include both predictive policing and risk assessment tools. Police departments use predictive policing as a tool which combines algorithmic models and data analytics to forecast criminal activities by studying past crime records and geographical information and behavioral patterns. The systems provide law enforcement agencies with tools to detect dangerous people and watch areas that have high chances of criminal activity.

Risk assessment tools assess an offender's likelihood to commit future crimes which exists in their purpose as tools for sentencing and parole decision-making. The tools produce risk scores through their analysis of multiple factors including a person's previous criminal record and their current age and work situation and their observed behaviour. Thanks to its widespread adoption by US jurisdictions, the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) system has become a go-to tool for risk assessment for judges and parole boards.¹² The instruments exist to support judicial processes through their functions which deliver additional information that assists in making decisions about criminal justice matters. The application of predictive technologies has sparked extensive discussions which focus on their accuracy and their ability to treat all individuals with equity. The critics of algorithmic systems contend that these systems will perpetuate social bias because they depend on training data which contains historic patterns of discrimination. The proprietary nature of most algorithmic systems creates obstacles to understanding their risk score generation process which results in legal decision-making processes lacking transparency and accountability.

4.2 Use of Data Analytics in Criminal Justice Decision-Making

It is now standard practice to base decisions on verified evidence, which is why data analytics are being used by criminal justice systems. Information on criminal acts, court rulings, and recidivism trends are all part of the massive volumes of data produced by the criminal justice system. The AI-powered analytical tools enable researchers to process data which helps them discover hidden relationships and patterns that traditional analysis methods fail to reveal.¹³

¹² *State v. Loomis*, 881 N.W.2d 749 (Wisconsin Supreme Court, 2016).

¹³ Mireille Hildebrandt, *Law for Computer Scientists and Other Folk* (Oxford University Press, 2020).



Data analytics provides support to authorities for two purposes in sentencing and parole settings by helping them assess recidivism risks and select proper correctional methods. The algorithmic systems which analyze historical records of offender behavior and rehabilitation outcomes create predictive models that show potential risks from releasing prisoners on parole. The systems which these tools provide enable users to assign offenders to three distinct risk levels which include low risk, medium risk, and high risk categories.

The use of algorithms brings multiple advantages to organizations yet it creates difficult legal and ethical problems. Criminal justice decisions traditionally rely on individualized assessment and judicial reasoning rather than statistical probability. The principle of case-specific sentencing requires judges to base their decisions on particular facts which they can't determine when they depend excessively on algorithmic predictions. The lack of transparency in algorithmic systems creates challenges for defendants who want to contest the system's precision and impartiality which judges use to make their decisions.

4.3 Potential Benefits: Consistency, Efficiency, and Crime Prediction

The supporters of AI in risk assessment within the criminal justice system contend that it could establish form, consistency, and efficiency in this area. Human decision-making occurs through three main factors which include cognitive biases and emotional factors and institutional pressures. Algorithmic tools use standardized data-driven models which decrease personal differences in sentencing results.¹⁴

The ability of AI systems to handle extensive data processing tasks at high speeds stands as another potential benefit. Artificial intelligence tools examine extensive datasets which include criminal activity data and recidivism statistics to assist judicial systems and correctional facilities with their sentencing and parole decision-making processes. The system enables correctional facilities to distribute their resources more effectively while it enhances the justice system's operational performance.

Law enforcement agencies use predictive analytics as a crime prevention tool which enables them to identify patterns that result in repeat criminal offenses. The tools can assist rehabilitation methods when used responsibly and protected with proper security measures because they identify offenders needing specific intervention or monitoring programs.¹⁵ The advantages of these benefits require evaluation against the dangers which stem from algorithmic bias and an absence of transparency and the risk that judges will lose their decision-making power. The legal system needs to retain constitutional protection over artificial intelligence systems because human operators require operational control to ensure fair results in criminal justice decision making.

5. Constitutional Concerns and Fundamental Rights Implications

5.1 Algorithmic Bias and Equality under Article 14

¹⁴ Danielle Keats Citron, "Technological Due Process" (2008) 85 *Washington University Law Review* 1249.

¹⁵ Bernard E. Harcourt, *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age* (University of Chicago Press, 2007).



The implementation of artificial intelligence technology in India creates major threats to the fundamental principle of equal treatment which Article 14 of the Constitution establishes. Article 14 guarantees everyone equal legal protection while it prohibits the state from conducting its activities in an unrestrained manner.

The current practices used for operating algorithmic systems which determine parole and punishment outcomes create a risk of producing unjust results.

When AI systems produce outcomes that unfairly impact specific demographic groups because of biased training data and incorrect modeling assumptions that situation describes algorithmic bias. The predictive systems which use historical crime data as their basis tend to perpetuate the existing social inequalities which exist within those datasets. The algorithmic models which train their programs on data from communities that experience higher police activity and arrest rates will result in increased risk assessments for individuals from those areas.¹⁶

The Supreme Court has established that state actions must demonstrate their validity through justifiable grounds which should not lead to discriminatory treatment of individuals. The Court in *E.P. Royappa v. State of Tamil Nadu* stated that arbitrary actions create a direct conflict with principles of equality and that state officials who exercise their power through arbitrary methods commit violations of Article 14.¹⁷ If criminal justice decision-making systems use algorithms to produce results which lack both transparency and fairness these systems could face legal challenges as they operate like random governmental activities. AI needs to undergo detailed examination when used for sentencing and parole decisions to guarantee that it maintains the constitutional right to equal treatment.

5.2 Due Process and Fair Trial under Article 21

The right to life and personal liberty, as construed by the Supreme Court, includes the right to due process and procedural fairness, as stated in Article 21 of the Constitution. Article 21, as affirmed by the Supreme Court in *Maneka Gandhi v. Union of India*, mandates that all processes having an effect on individual liberty adhere to reasonable, fair, and equitable standards¹⁸

The application of algorithmic tools for sentencing and parole decisions creates fundamental challenges which jeopardize their ability to meet due process requirements. Automated systems which judges and lawyers and defendants do not fully understand operate their judicial decisions about liberty, which makes it difficult for affected parties to contest these decisions. The due process requirement mandates that people must receive their right to understand the reasons behind decisions that impact their rights¹⁹

The nature of algorithmic predictions exists because their output depends on statistical correlations which treat all data points as probabilistic outcomes. The criminal justice system requires personalized justice which mandates that judges base their decisions on specific details of each

¹⁶ Frank Pasquale, *The Black Box Society: The Secret Algorithms that Control Money and Information* (Harvard University Press, 2015).

¹⁷ *E.P. Royappa v. State of Tamil Nadu*, AIR 1974 SC 555.

¹⁸ *Maneka Gandhi v. Union of India*, AIR 1978 SC 597.

¹⁹ Danielle Keats Citron, "Technological Due Process" (2008) 85 *Washington University Law Review* 1249.



individual case. The principle requires that personal responsibility be considered but predictive algorithms will change this by their focus on assessing statistical danger instead of actual guilt.

5.3 Transparency and the “Black Box” Problem in AI Systems

The "black box" problem represents one of the most significant challenges that people discuss about AI systems. The functioning mechanism of many algorithmic models depends on complicated machine learning systems which humans cannot easily interpret. The judges and lawyers and defendants cannot access the reasoning process which leads to algorithmic outputs.

The absence of transparency creates major difficulties for establishing legal responsibility. The court system faces challenges when it evaluates system dependability and impartiality and legal legitimacy because it uses algorithmic recommendations that remain unexplained. Scholars have argued that opaque algorithmic decision-making may undermine fundamental legal principles such as reasoned judgment and accountability.²⁰

The criminal justice system requires transparent operations because its sentencing and parole processes directly determine personal freedom for all individuals involved. The legal system prevents defendants from challenging technological errors and biases because they lack access to the fundamental workings of algorithmic systems.

5.4 Impact on Prisoners’ Rights and Rehabilitation

The use of AI tools for parole decision-making creates major problems which impact both prisoner rights and the rehabilitation goals of the criminal justice system. The modern field of penology views rehabilitation and reintegration as the primary goals which define punishment. Parole systems exist to promote proper behavior among inmates while helping offenders return to their communities through controlled steps.

Incarcerated people in India continue to enjoy their constitutionally protected rights, according to the country's highest court. The Supreme Court's ruling in *Sunil Batra v. Delhi Administration* protects all fundamental rights of inmates except those rights which need to be restricted for their secure custody.²¹ Similarly, in *State of Haryana v. Mohinder Singh*, the Court observed that parole serves an important rehabilitative function within the criminal justice system.²²

The use of algorithmic risk assessment tools in parole decisions creates a dangerous situation because it enables parole boards to reject parole applications through statistical predictions which do not consider actual criminal behavior and rehabilitation progress. The results of this study will undermine the fundamental principles that govern modern criminal justice systems while establishing barriers that will hinder prisoners from achieving successful social reintegration. Parole decision-making requires technological systems to implement protection measures which will ensure fairness and transparency while protecting constitutional rights.

²⁰ Mireille Hildebrandt, *Law for Computer Scientists and Other Folk* (Oxford University Press, 2020).

²¹ *Sunil Batra v. Delhi Administration*, AIR 1978 SC 1675.

²² *State of Haryana v. Mohinder Singh*, (2000) 3 SCC 394.



6. Judicial Discretion vs Algorithmic Decision-Making

6.1 Importance of Human Judgment in Sentencing

The criminal justice system functions through its primary need for judicial discretion as its fundamental element. Multiple factors need evaluation when sentencing someone which includes their crime severity and their personal attributes and the details of their offense and the overall requirements of justice. Judges need to make ethical choices during sentencing process because they have to evaluate particular cases using their existing legal expertise and their knowledge of the case details²³

Judges assess non-quantifiable factors which statistical models cannot measure through their ability to make decisions. The sentencing process can be affected by factors which include the offender's remorse, their social background, their chances of rehabilitation, and how their punishment will impact their family. The elements show that algorithmic systems fail because they need quantitative data yet cannot evaluate complex situational factors.

Judges assess non-quantifiable factors which statistical models cannot measure through their ability to make decisions. The sentencing process can be affected by factors which include the offender's remorse, their social background, their chances of rehabilitation, and how their punishment will impact their family. The elements show that algorithmic systems fail because they need quantitative data yet cannot evaluate complex situational factors.

6.2 Risks of Over-Reliance on Automated Systems

The advanced AI tools create valuable analytical results, but their excessive use in automatic systems for sentencing and parole decisions creates major dangers. One major concern is that algorithmic systems operate primarily through statistical correlations rather than legal reasoning. The system generates predictions by analyzing historical data patterns which leads to a failure to understand individual case details.

The first issue which needs examination involves the possibility that courts will lose their ability to hold judges accountable for their actions. Courts which depend on algorithmic risk scores to make decisions create a situation where their officials will trust machine results instead of their ability to think independently. The system creates a risk which threatens the principle that judges must explain their sentencing decisions through reasonable and open reasoning which others can assess.

The algorithmic systems which implement their technology create new biases and errors which remain concealed from observation. The general public cannot observe how proprietary predictive models operate because their internal systems remain locked away from public access. As for the defendants, quite a task, undoing the argument that criminal court is functioning subjectively fair.²⁴ The existing security processes need human system assessments because total dependence on automatic security tools leads to unfair treatment and breaches of proper legal procedures.

²³ Andrew Ashworth, *Sentencing and Criminal Justice* (6th edn., Cambridge University Press, 2015).

²⁴ Frank Pasquale, *The Black Box Society: The Secret Algorithms that Control Money and Information* (Harvard University Press, 2015).



6.3 Balancing Technology with Judicial Independence

The current situation requires an equitable framework for applying artificial intelligence through its implementation in sentencing and parole assessment. The judicial system needs to treat technological tools as resources that help judges by providing extra information which judges will use to make their final decisions. The judges hold the duty to make final judgments about evidence assessment and legal interpretation and suitable sentencing options.

The preservation of judicial independence retains its critical importance for evaluating algorithmic decision-making systems. The judicial system requires technological safeguards to protect its constitutional duties which serve as its primary function of safeguarding individual rights. Courts must use AI tools in ways that improve their judicial functions while maintaining human control and responsibility. Multiple researchers propose that criminal justice systems should implement transparency standards along with independent assessments and comprehensive regulatory supervision of their algorithmic systems.²⁵ The court system can use technological advancements for their advantages through these protective measures which safeguard essential judicial principles. The main challenge exists because we need to create a legal system which uses AI benefits while keeping human decision-making as the main component for criminal trials.

7. Comparative Perspectives

7.1 Use of AI Risk Assessment in the United States (e.g., COMPAS System)

When it comes to criminal justice decision-making, the US has been ahead of the curve when it comes to experimenting with risk assessment techniques based on AI. Many states use the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) system because it helps judges and parole boards assess a criminal's chance of reoffending. COMPAS calculates risk scores by analyzing a number of factors including a person's age and criminal background and work status and behavioral indicators. Judgmental officials use the scores to inform bail, sentencing, and parole decisions.

The constitutional implications of using such tools were examined in *State v. Loomis*. The Wisconsin Supreme Court examined the case to determine whether the defendant's due process rights were violated through the use of COMPAS system. The Court allowed risk assessment tools to be used in court cases but warned that judges must use these tools as additional evidence which does not serve as absolute proof.²⁶ The case demonstrated problems with algorithm transparency because the defense team could not access the proprietary details of the COMPAS algorithm which resulted in risk score assessment.

7.2 European Union Approach to Algorithmic Accountability

²⁵ Danielle Keats Citron, "Technological Due Process" (2008) 85 *Washington University Law Review* 1249.

²⁶ *State v. Loomis*, 881 N.W.2d 749 (Wisconsin Supreme Court, 2016).



The European Union uses a more cautious method for its public governance AI systems than the United States. The European Union requires organizations to maintain transparency and accountability while protecting fundamental rights when they use algorithmic systems for decision-making. The proposed European Union Artificial Intelligence Act uses different risk levels to establish regulations for AI technologies according to established principles.²⁷

AI systems are termed as high-risk technologies under this regulatory regime for being utilized in the administration of justice. Their operations must meet stringent standards which include requirements for transparent operations and human supervision and accountability measures. The EU approach establishes that all algorithmic systems used in sensitive fields such as criminal justice require strict regulatory measures which prevent discrimination and maintain essential rights protection standards.

7.3 Lessons for the Indian Criminal Justice System

The United States and European Union share comparable experiences which provide useful insights for the Indian criminal justice system. The American experience shows how algorithmic risk assessment tools can bring benefits to their implementation yet also create potential dangers. The systems provide useful analytical insights however they face major issues because of their existing bias problems and inability to show their working process and their violation of due process rights.

The European Union requires precise legal standards for AI applications in public decision-making. India requires constitutional protections and regulatory programs to implement AI technology in its judicial system. AI-based tools should only and solely be supporting tools, instead of replacing judicial discretion. International case studies will help India build a framework which combines technological progress with the protection of basic rights and fair criminal trial processes.

8. Conclusion

The increasing use of Artificial Intelligence within criminal justice systems will impact how judges determine sentences and how they decide parole cases. The AI-based risk assessment system allows legal professionals to achieve higher efficiency levels while obtaining data-based results and producing more uniform case outcomes. The Indian criminal justice system faces multiple difficulties because it wants to use these technologies which create both legal and ethical problems. The Indian Constitution through its fairness and due process requirements faces critical challenges from issues that include algorithmic bias and system transparency issues and the risk of judicial discretion being diminished.

The technology used to make parole and sentencing decisions must follow the constitutional rights which Articles 14 and 21 protect because these decisions impact an individual's freedom. The process of criminal adjudication needs to keep its focus on three main elements which include judicial discretion and individualized assessment and reasoned decision-making. AI-based tools need to operate as tools which provide judges and parole authorities with assistance instead of taking over their decision-making responsibilities.

²⁷ European Commission, Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act), COM/2021/206 Final.



The Indian judicial system has proven its operational efficiency gains through its technological modernization initiatives which demonstrate responsible implementation of digital tools. The AI system needs clear rules and transparent processes with judicial oversight to develop proper sentencing and parole decision-making systems. Legal processes require efficient operation through a balanced approach which needs to consider both technological advancements and constitutional rights protection.

References

- Andrew Ashworth, *Sentencing and Criminal Justice*, 6th edn., Cambridge University Press, Cambridge, 2015.
- Andrew Ashworth and Jeremy Horder, *Principles of Criminal Law*, 7th edn., Oxford University Press, Oxford, 2013.
- Andrew Ferguson, *The Rise of Big Data Policing: Surveillance, Race, and the Future of Law Enforcement*, New York University Press, New York, 2017.
- Bernard E. Harcourt, *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age*, University of Chicago Press, Chicago, 2007.
- Danielle Keats Citron, “Technological Due Process”, (2008) 85 *Washington University Law Review* 1249.
- Frank Pasquale, *The Black Box Society: The Secret Algorithms that Control Money and Information*, Harvard University Press, Cambridge, 2015.
- Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, “Machine Bias”, *ProPublica*, 23 May 2016, available at: <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> (last visited on 10 March 2026).
- Mireille Hildebrandt, *Law for Computer Scientists and Other Folk*, Oxford University Press, Oxford, 2020.
- Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, 3rd edn., Pearson Education, 2016.
- European Commission, *Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act)*, COM/2021/206 Final.
- Ministry of Law and Justice, Government of India, *National Policy and Action Plan for Implementation of Information and Communication Technology in the Indian Judiciary*, New Delhi, 2019.