

Intellectual Property Rights in Technological Era

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Abstract: *The use of technology into criminal justice administration has revolutionised conventional methods, improving efficiency, precision, and transparency across several areas. This article analyses the many uses of technology within the criminal justice system, emphasising its function in law enforcement, court proceedings, and prisons. Innovations like predictive policing algorithms, biometric identification systems, and sophisticated forensic tools have transformed investigation methods, allowing law enforcement organisations to anticipate criminal actions and accelerate case resolutions. Digital evidence management systems and AI-driven legal analytics optimise case processing, minimising procedural delays and improving court decision-making. Moreover, the emergence of e-courts and online dispute resolution platforms enhances access to justice, especially in rural and underserved regions.*

The research examines the use of technology in prisons, including electronic surveillance, rehabilitation-oriented AI algorithms, and virtual reality (VR) training for offenders. Although these developments provide the prospect of a more efficient and just system, they also elicit considerable ethical and legal dilemmas, including data privacy, algorithmic prejudice, and the risk of excessive monitoring.

This paper further highlights the need of establishing regulatory frameworks and ethical principles to reduce dangers while enhancing the advantages of technology adoption. It critically examines the interaction of technology and criminal justice, contributing to the conversation on establishing a balanced and future-oriented justice system. The results highlight that a prudent use of technology, with human supervision, may greatly enhance the administration of justice in modern society.

Keywords: Law enforcement, Forensic Tools, E-Courts, Virtual Reality Training, Data Privacy, Ethical Principles