

Juridical Review of The Use of CCTV E-Tickets in Traffic is Linked to Human Rights and The Right to Privacy of a Person Under The Constitution 1945

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ABSTRACT

This study aims to analyze the efficiency of CCTV usage in Indonesia's E-Tilang system concerning traffic law enforcement and the protection of human rights, particularly the right to privacy as guaranteed under Article 28G(1) of the 1945 Constitution. The research employs a normative-empirical legal approach with descriptive-analytical methods. Data were collected through library research and interviews with police officials, the National Commission on Human Rights (Komnas HAM), and road users. Findings indicate that while E-Tilang effectively reduces traffic violations and minimizes extortion practices, it raises serious privacy concerns. Continuous CCTV surveillance without clear data retention limits, lack of transparency, and absence of post-enforcement data deletion mechanisms risk violating the purpose limitation and data minimization principles under Indonesia's Personal Data Protection Law No. 27/2022. Therefore, regulatory reform based on privacy by design principles is essential, including establishing an independent oversight authority and enhancing public participation.

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1. INTRODUCTION

The development of digital technology has revolutionized various aspects of life, including in the realm of law enforcement. In Indonesia, digital transformation in traffic law enforcement is realized through the implementation of the Electronic Ticket (E-Tilang) system that utilizes *Closed Circuit Television* (CCTV) cameras and *Automatic Number Plate Recognition* (ANPR) technology to automatically detect traffic violations. This system is based on Article 272 of Law Number 22 of 2009 concerning Road Traffic and Transportation (LLAJ), which explicitly recognizes that electronic equipment can be used as evidence in the process of cracking down on traffic violations (Indonesia, 2009). Furthermore, Government Regulation No. 80 of 2012 and Supreme Court Regulation (PERMA) No. 12 of 2016

strengthen the legitimacy of the use of electronic evidence in the settlement of traffic violation cases (Indonesia, 2012; Supreme Court, 2016).

The main goal of the implementation of E-Ticketing is to increase efficiency and transparency in law enforcement, while minimizing the practice of illegal levies and bribery which have been structural problems in the enforcement of traffic violations (National Police of the Republic of Indonesia, 2021). However, behind these benefits, the use of CCTV, especially those equipped with *facial recognition* technology, raises serious concerns about the right to privacy, which is an integral part of Human Rights (HAM). This concern is based on Warren and Brandeis' (1890) theory of privacy which defines the right to privacy as "*the right to be let alone*", a right to be left and protected from unwanted intervention. In the context of the Indonesian legal state, this right is guaranteed in Article 28G paragraph (1) of the 1945 Constitution of the Republic of Indonesia, which affirms that everyone has the right to protection of his or her personal self, family, honor, dignity, and personal data (Indonesia, 1945).

Previous studies have identified potential conflicts between the public interest in law enforcement and an individual's right to privacy. For example, Wahyudi Djafar from the Institute for Community Studies and Advocacy (ELSAM) highlighted that the collection of biometric data through CCTV E-Tilang is carried out without explicit consent from the public, so it has the potential to violate the principle of *informed consent* in personal data protection (Djafar and Fikri, 2021). In addition, the absence of comprehensive regulations such as the Personal Data Protection Law (PDP Law) which was only passed in 2022 but whose implementation is still limited leaves legal loopholes in the management, storage, and deletion of recorded data (Indonesia, 2022).

Previous studies have tended to focus on the technical aspects of the effectiveness of E-Tilang or normative analysis of its legal basis (e.g., Putra and Nugroho, 2020), but have lacked a holistic approach to human rights, especially within the framework of the principles of proportionality, legality, and accountability as mandated in international human rights law and national constitutions. Furthermore, there have also been not many previous studies that offer operational regulatory solutions, such as the implementation of privacy by design or independent supervision models involving multi-stakeholders. These limitations create an urgent need for a juridical study that not only assesses the efficiency of the E-Ticket system, but also tests its conformity with human rights and privacy protection standards in the context of a democratic legal state, as affirmed by the principle of *rechtsstaat* affirmed by Utrecht (1960), where states must submit to the law and guarantee the rights of their citizens.

This article aims to fill this gap by analyzing how efficiently the use of CCTV in the E-Tilang system in Indonesia is to traffic law enforcement and the protection of human rights, especially the privacy rights of individuals? How are the legal challenges faced in the implementation of E-Ticket related to the protection of human rights, as well as related to existing regulations and can be a solution to these challenges? This approach refers to the theory of the right to privacy of Warren and Brandeis (1890) which emphasizes "*the right to be let alone*" as well as the principles of preventive and repressive legal protection as regulated in the Indonesian legal system.

Thus, this article makes a new contribution to the study of law by combining three perspectives at once: constitutional law, human rights, and information technology law, to assess the application of CCTV in the E-Ticket system. The results of this study are expected to help governments and policymakers develop clear, fair, and responsible rules so that efforts to update traffic law enforcement do not ignore citizens' rights, especially the right to privacy. Given the increasing number of surveillance cameras in public spaces, it is important to balance two interests: traffic safety on the one hand, and the protection of individual privacy on the other. Answering this challenge is not only an academic matter, but also a real need to build a digital system that is fair, transparent, and in accordance with the principles of the rule of law guaranteed by the 1945 Constitution.

2. METHODS

This article uses a normative-empirical legal research approach, which is a combination of analysis of applicable legal provisions (normative) and observation of their application in practice in society (empirical). The nature of the research is descriptive, aiming to provide a systematic overview of the implementation of the CCTV-based E-Tilang system and its implications for the right to privacy and human rights in Indonesia.

Data collection is carried out through two main techniques. First, library research to collect primary legal materials includes the Constitution of the Republic of Indonesia in 1945, Law Number 22 of 2009 concerning Road Traffic and Transportation, Law Number 36 of 1999 concerning Telecommunications, and Government Regulation Number 80 of 2012 as well as secondary legal materials such as scientific journals, books, reports of human rights institutions, and relevant policy documents. Second, *field* research through in-depth interviews with key speakers, namely representatives from the West Java Regional Police Traffic Directorate and the National Human Rights Commission (Komnas HAM), to obtain primary data on the implementation and challenges in the implementation of E-Ticketing.

Data analysis was carried out qualitative-juridically with a descriptive approach. Data was analyzed through three approaches to analysis of laws and regulations, the use of legal doctrines and principles related to human rights and privacy, and exploration of practices and real cases related to E-Ticketing. The results of the analysis are compiled logically and systematically to answer the formulation of the problem and provide policy recommendations based on the principles of the state of law and the constitutional rights of citizens.

3. FINDINGS AND DISCUSSION

Implementation of the E-Ticket System and Its Contradiction with Privacy Rights

The implementation of the Electronic Traffic Law Enforcement (ETLE) system in Indonesia has been widely promoted as a breakthrough in modernizing law enforcement. According to the National Police of the Republic of Indonesia (2021), regions that have adopted the ETLE system have experienced a 20–40% reduction in traffic violations. This achievement indicates that technology-based monitoring contributes significantly to improving road discipline. However, beneath this apparent success lies a structural tension between the efficiency of law enforcement and the protection of fundamental privacy rights. The core issue is not the technological capability of ETLE but the ethical and legal framework surrounding its operation.

ETLE cameras operate continuously for 24 hours, capturing all vehicular movements and, in the process, recording biometric and behavioral identifiers such as facial images, postures, and mobility patterns. Solove (2011) emphasizes that continuous and indiscriminate surveillance infringes upon the principle of *situational privacy*, which asserts that individuals, even in public spaces, should not be subjected to constant observation. This condition aligns with Lyon's (2018) critique of the *surveillance society*, wherein pervasive technological monitoring transforms citizens into perpetual subjects of scrutiny.

In Indonesia's constitutional framework, such practices are inconsistent with Article 28G paragraph (1) of the 1945 Constitution, which guarantees the right to personal protection, family, honor, dignity, and personal data (Indonesia, 1945). The integration of ETLE data with the *Sistem Informasi Kendaraan Bermotor* (SIKB) managed by Korlantas Polri expands this surveillance scope. The absence of explicit consent and control mechanisms from data subjects raises serious concerns regarding violations of data protection principles, specifically *purpose limitation* and *storage limitation*, as outlined in Law No. 27 of 2022 on Personal Data Protection (Indonesia, 2022).

Dahlan et al. (2023) emphasized legal certainty as a positive dimension of ETLE implementation. However, this study reveals that the absence of derivative regulations, especially those governing data retention and destruction, creates legal uncertainty. The ETLE Standard Operating Procedure (SOP) No. 1 of 2022 only mentions that "data is stored centrally on ETLE servers," without specifying any

retention period (National Police of the Republic of Indonesia, 2022). The lack of a maximum data storage duration opens opportunities for *function creep*—a situation in which data collected for law enforcement is later repurposed for non-consensual uses (Lyon, 2018). This not only violates the foundational principle of privacy articulated by Warren and Brandeis (1890), the “right to be let alone,” but also contradicts Locke’s (1689) political philosophy, which asserts that the state must protect natural rights and prevent arbitrary intrusion into private life.

Empirical data strengthen these theoretical findings. Interviews conducted in Bogor and Bandung revealed that many respondents felt uneasy with the ETLE system. They described a feeling of “always being watched” and expressed concerns that their personal data could be misused for identity forgery or cybercrime (Interview with SPA Respondents, 2025; Interview with CS Respondents, 2025). These fears are legitimate, as municipal authorities in both cities allow public access to live CCTV feeds without adequate data protection mechanisms (Bogor City Government, 2025). Such practices contradict the principles of proportionality and necessity in surveillance ethics, leading to potential violations of both privacy and security.

If not corrected, this situation risks transforming Indonesia from a *rechtsstaat* (state governed by law) into a *machtsstaat* (state governed by power), as warned by Utrecht (1960). Satjipto Rahardjo (2000) further asserts that the law must serve humanity rather than control it. Hence, when surveillance technologies are not bound by clear accountability, they erode the humanistic foundation of the legal system.

Problems in the Use of ETLE CCTV from the Perspective of Privacy Rights

This study identifies five major issues that illustrate the contradiction between ETLE implementation and citizens’ privacy rights.

First, there is a stark inconsistency between regulations and field practices. While law enforcement authorities claim that ETLE cameras are only active when violations occur, field evidence shows that cameras continuously record all traffic movements. This disparity reflects Soerjono Soekanto’s (1983) concept of the gap between “law in the books” and “law in action.” Such inconsistency undermines public confidence and contributes to a perception that the law serves institutional interests rather than citizens’ rights.

Second, the absence of clear derivative regulations regarding data storage and destruction violates the fundamental principles of the PDP Law. Without defined data retention policies, ETLE potentially breaches *data minimization* and *retention limitation* requirements, leading to what Rahardjo (2000) describes as “legal injustice.” The absence of destruction procedures leaves open the possibility of data being reused, manipulated, or leaked.

Third, there is a lack of effective public socialization regarding the extent and purpose of ETLE data recording. Most drivers are unaware of how their personal information is processed or integrated with national databases. According to Friedman (1975), this demonstrates a weak *legal culture*, where the public’s understanding of legal mechanisms is insufficient to enable them to exercise their rights. This information asymmetry undermines the principles of transparency and accountability in governance.

Fourth, there exists a real and justified public concern over data misuse. Interviewees cited examples of license plate forgery and the unauthorized sale of personal vehicle data. These reflect the absence of what Hadjon (1987) termed *preventive legal protection*, where the law should act proactively to prevent violations before they occur. Instead of relying on reactive measures after harm is done, ETLE should be redesigned with preventive safeguards such as encryption, restricted access, and automatic data deletion.

Fifth, the ETLE system lacks independent oversight. All data collection, management, and analysis are under the sole control of Korlantas Polri. This concentration of power violates democratic checks and balances. Komnas HAM (2021) has stated that internal supervision alone is insufficient and that external, independent institutions are essential to ensure accountability and fairness. Without such oversight, ETLE risks evolving into an instrument of arbitrary surveillance.

Proposed Legal and Institutional Solutions

To address these challenges, this study proposes three original and actionable solutions that align with the principles of modern data governance and constitutional democracy.

1. Applying the Principle of Privacy by Design

Drawing on Cavoukian's (2009) *privacy by design* framework, privacy protection should be embedded in every stage of ETLE development and operation. This includes implementing an automatic deletion mechanism where all recordings not linked to ongoing legal processes are erased after 30 days. In addition, anonymization techniques—such as blurring the faces of non-offenders and masking license plates—should be applied in real-time. These measures ensure proportionality in data processing and prevent over-collection.

2. Establishing a National Transparency Portal

In accordance with Article 18 of the PDP Law (Indonesia, 2022), a centralized transparency portal should be established to provide citizens access to their data profiles. This portal would allow individuals to request data correction, object to misuse, or demand deletion. Such a mechanism promotes what Budhijanto (2010) describes as a participatory and civilized legal order, where citizens actively exercise their digital rights. Comparative studies show that similar systems implemented in the European Union under the General Data Protection Regulation (GDPR) significantly enhance public trust and compliance.

3. Creating an Independent Traffic Data Supervisory Authority (OIPDL)

Finally, an *Otoritas Independen Pengawas Data Lalu Lintas* (OIPDL) should be established to oversee ETLE operations. This body, composed of representatives from Komnas HAM, the Ombudsman, privacy experts, and civil society, would conduct periodic audits, handle complaints, and issue compliance reports. Such independent supervision aligns with Utrecht's (1960) vision of a *rechtsstaat*—a state governed by law and justice rather than power. Through this institution, data surveillance can be controlled, accountable, and consistent with constitutional guarantees.

These three solutions respond directly to Lyon's (2018) critique of unregulated surveillance and reinforce Budhijanto's (2010) argument that the protection of personal rights forms the foundation of a civilized legal system. The aim is not to abolish ETLE but to reform it, ensuring that technological advancement coexists harmoniously with human rights.

Reconceptualizing ETLE: From Surveillance to Governance

In conclusion, this discussion reaffirms that while ETLE significantly improves traffic law enforcement, its current form risks undermining the right to privacy guaranteed by the Constitution and the PDP Law. The key challenge lies in striking a balance between security and liberty. Locke's (1689) philosophy reminds us that legitimate state power arises from the consent of the governed—consent that must be informed, explicit, and revocable.

Therefore, ETLE reform should not merely focus on operational efficiency but also on embedding privacy, transparency, and accountability principles within its structure. Implementing *privacy by design*, establishing a public transparency portal, and creating an independent supervisory authority would represent significant progress toward a rights-based model of digital governance.

By aligning technological innovation with constitutional guarantees, Indonesia can demonstrate that it is possible to maintain public order without sacrificing personal freedom. In doing so, the state fulfills its dual role—as both the guardian of collective security and the protector of individual dignity in the digital era.

4. CONCLUSION

This research successfully answered two main objectives. First, the efficiency of using CCTV in the E-Tilang system has proven to be effective in enforcing traffic laws by reducing the number of violations by 20–40%. However, this effectiveness is not accompanied by the protection of human rights, especially the right to privacy. Recordings that are made massively, continuously, and without an

indefinite storage period violate the principle of situational privacy, Article 28G paragraph (1) of the 1945 Constitution, as well as the principles of purpose limitation and storage limitation in the Personal Data Protection Law. Second, the main legal challenges in the implementation of E-Tilang include inconsistencies between regulations and field practices, the absence of SOPs for data destruction, lack of socialization, public concerns about data misuse, and the absence of independent supervision. These five problems show that the current E-Tilang system focuses more on the public interest than the protection of individual rights, thus potentially weakening the principle of the rule of law. Based on these findings, this study recommends three concrete steps to balance the efficiency of law enforcement and the protection of privacy rights in the E-Ticket system. First, the government and the National Police Corps need to immediately revise the ETLE SOP by strictly regulating the maximum duration of data storage, for example 30 days, accompanied by an automatic destruction mechanism and the implementation of adequate data security standards. In addition, it is necessary to build a national transparency portal that gives citizens the right to access, correct, and file objections to their personal data in accordance with Article 18 of the PDP Law. Second, Komnas HAM together with independent supervisory agencies must be given formal authority to conduct periodic audits of ETLE data management, provide policy recommendations, and encourage public education on privacy rights in the context of digital law enforcement. Without strong external supervision, the risk of function creep and human rights violations will continue to haunt this technology-based surveillance system.

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