

Law Enforcement of Traffic Violations Through Electronic Traffic Law Enforcement : A Legal Study in East Java Region

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ABSTRACT

Traffic violations remain a serious challenge in East Java, the region with the highest violation rate in Indonesia. This study aims to analyze the legal basis for traffic violation enforcement using Electronic Traffic Law Enforcement (ETLE) as well as legal protections for road users in the region, using a normative legal research method. The results of the study indicate that the ETLE system is supported by a robust regulatory framework, including Law No. 22 of 2009 on Road Traffic and Transportation, Government Regulation No. 80 of 2012, and National Police Regulation No. 2 of 2025, which collectively provide legal certainty for law enforcement officials and the general public. Legal protection for road users is realized through the objectivity of electronic evidence, the mechanism for sending confirmation letters to violators, and the transparency of online fine payments. Nevertheless, several challenges remain, including the uneven distribution of camera infrastructure across various regions, weak data synchronization among relevant agencies, and the lack of an explicit appeal mechanism for members of the public who feel aggrieved. Using Lawrence M. Friedman's legal system theory, these challenges reflect weaknesses in the components of legal structure and legal culture that need to be systematically strengthened to achieve effective, transparent, and fair traffic law enforcement.

Keywords: *Law Enforcement, Electronic Traffic Law Enforcement (ETLE), Traffic Violations*

Implementasi Penegakan Hukum atas Pelanggaran Lalu Lintas Berbasis ETLE di Wilayah Jawa Timur

ABSTRAK

Pelanggaran lalu lintas masih menjadi tantangan serius di Jawa Timur, salah satu wilayah dengan tingkat pelanggaran tertinggi di Indonesia. Penelitian ini bertujuan menganalisis landasan hukum penindakan pelanggaran lalu lintas berbasis Electronic Traffic Law Enforcement (ETLE) serta perlindungan hukum bagi pengguna jalan di wilayah tersebut, dengan menggunakan metode penelitian yuridis normatif. Hasil penelitian menunjukkan bahwa sistem ETLE didukung oleh regulasi yang kuat, meliputi UU No. 22 Tahun 2009 tentang Lalu Lintas dan Angkutan Jalan, PP No. 80 Tahun 2012, serta Perkapolri No. 2 Tahun 2025, yang secara bersama-sama memberikan kepastian hukum bagi aparat penegak hukum maupun masyarakat luas. Perlindungan hukum bagi pengguna jalan diwujudkan melalui objektivitas alat bukti elektronik, mekanisme pengiriman surat konfirmasi kepada pelanggar, serta transparansi pembayaran denda secara daring. Meskipun demikian, sejumlah kendala masih ditemukan, antara lain distribusi infrastruktur kamera yang tidak merata di berbagai wilayah, lemahnya sinkronisasi data antarinstansi terkait, serta belum tersedianya mekanisme keberatan yang eksplisit bagi masyarakat yang merasa dirugikan. Dengan menggunakan teori sistem hukum Lawrence M. Friedman, tantangan-tantangan tersebut mencerminkan kelemahan pada komponen struktur hukum dan budaya hukum yang perlu diperkuat secara sistematis demi terwujudnya penegakan hukum lalu lintas yang efektif, transparan, dan berkeadilan.

Kata kunci: Penegakan hukum, *Electronic Traffic Law Enforcement (ETLE)*, Pelanggaran Lalu Lintas

INTRODUCTION

Traffic order reflects the level of public compliance with the law and serves as an indicator of the effectiveness of law enforcement by the state. With a rapidly growing number of motor vehicles, Indonesia faces serious challenges in maintaining a balance between public mobility and road safety.¹ Traffic management is comprehensively regulated by Law No. 22 of 2009 on Road Traffic and Transportation, which mandates the realization of safe, orderly, and smooth traffic as a goal of national transportation development. However, existing regulations have not been fully effective in encouraging changes in traffic behavior among the public, as reflected by the high number of traffic violations still occurring in various regions, including East Java, which is recorded as one of the regions with the highest violation rates nationally.² This situation reflects unresolved structural issues in traffic law enforcement.

The root of this problem lies in the inherent weaknesses of the manual fine system. Interactions between officers and violators often create opportunities for extortion, which undermines the integrity of law enforcement and harms public trust in the police.³ Recognizing this, the Indonesian National Police, through Telegram No. ST/2264/X/HUM.3.4.5/2022, officially abolished the manual ticketing mechanism and replaced it with the Electronic Traffic Law Enforcement system a technology based approach that utilizes electronic camera recordings as admissible evidence in court, as stipulated in Article 272 of the Road Traffic Law, and reinforced by Government Regulation No. 80 of 2012 and Indonesian National Police Regulation No. 2 of 2025. Conceptually, ETLE offers advantages such as minimizing direct contact between officers and violators, enhancing the objectivity of evidence, and improving the administrative efficiency of enforcement. However, its implementation on the ground still faces structural challenges, including the uneven distribution of camera infrastructure, poor data synchronization between agencies, and the public's limited understanding of the electronic enforcement mechanism challenges that are becoming

¹ P. Utami, "THE APPLICATION OF TECHNOLOGY AND INFORMATION DEVELOPMENT IN ELECTRONIC TRAFFIC LAW ENFORCEMENT (ETLE) TO SHAPE PUBLIC AWARENESS," *Edusight International Journal of Multidisciplinary Studies*, ahead of print, 2024, <https://doi.org/https://doi.org/10.69726/eijoms.v1i1.9>.

² E. Genda et al., "Smart Policing: The Impact Of E-TLE Implementation on Traffic Behavior in South Sumatra, Indonesia," *Journal of Ecohumanism*, ahead of print, 2025, <https://doi.org/https://doi.org/10.62754/joe.v4i1.6035>.

³ Genda et al., "Smart Policing: The Impact Of E-TLE Implementation on Traffic Behavior in South Sumatra, Indonesia."

increasingly critical given the disparity in the characteristics of urban and rural areas in East Java.⁴

Several previous studies have examined this issue from various perspective. Putri and Nawangsari found that the success of ETLE implementation is determined more by institutional capacity and cross sectoral coordination than by the substance of the policy alone however, their study did not address the normative dimension or procedural protections for road users.⁵ Amril, Anderson, and Hajri assert that ETLE effectively curbs illegal toll collection and improves driver compliance in the city of Jambi, but these findings are difficult to generalize to more heterogeneous regions as they are limited to a single city.⁶ Narullita, who studied the jurisdiction of the East Java Regional Police directly, identified systemic obstacles such as uneven camera distribution, delays in issuing confirmation letters, and weak inter agency data integration; however, her study remains descriptive operational and has not linked implementation issues to the underlying regulations.⁷

Based on these three studies, there has not been any research that simultaneously integrates a normative analysis of ETLE regulations with an evaluation of the quality of legal protection for road users in East Java. The fundamental question of whether the Road Traffic Law, Government Regulation No. 80 of 2012, and Police Regulation No. 2 of 2025 have provided adequate legal certainty and procedural protection remains unanswered in a systematic manner. It is based on this gap that this study was formulated. Using a normative legal approach, this study aims to analyze the legal basis for ETLE based traffic violation enforcement in the East Java region; and examine the form of legal protection provided by the ETLE system to road users as subjects of law enforcement.

LITERATURE REVIEW

Law Enforcement

⁴ Muhammad Dahlan et al., "ELECTRONIC TRAFFIC LAW ENFORCEMENT (ETLE) POLICY: THE PRINCIPLE OF LEGAL CERTAINTY IN A RULE OF LAW," *PETITA: JURNAL KAJIAN ILMU HUKUM DAN SYARIAH* 8, no. 3 (2023), <https://doi.org/https://doi.org/10.22373/petita.v8i2.176>.

⁵ S. Putri and E Nawangsari, "IMPLEMENTASI PROGRAM ELECTRONIC TRAFFIC LAW ENFORCEMENT," *Jurnal Kebijakan Publik*, ahead of print, 2023, <https://doi.org/https://doi.org/10.31258/jkp.v14i2.8191>.

⁶ N. Amril, I. Anderson, and P Hajri, "Efektivitas Program E-TLE Dalam Penegakan Hukum Peraturan Berlalu Lintas Di Kota Jambi," *Academy of Education Journal*, ahead of print, 2024, <https://doi.org/https://doi.org/10.47200/aoej.v15i1.2232>.

⁷ E. Narullita, "Penerapan Sistem Elektronik Traffic Law Enforcement (ETLE) Dalam Penindakan Pelanggaran Lalu Lintas Di Wilayah Hukum Polda Jatim," *VISA: Journal of Vision and Ideas*, ahead of print, 2024, <https://doi.org/https://doi.org/10.47467/visa.v4i3.2754>.

Legal experts define law enforcement from various complementary perspectives. Jimly Asshiddiqie perceives it as a process aimed at effectively upholding legal norms as guidelines for behavior in legal relationships within society and the state.⁸ Soerjono Soekanto defines it as the activity of harmonizing the values embodied in legal principles to create, maintain, and preserve peace in social life.⁹ While Satjipto Rahardjo asserts that law enforcement, at its core, is the enforcement of ideas regarding justice, truth, and social welfare.¹⁰

In order to understand why law enforcement often falls short despite the existence of regulations, Lawrence M. Friedman offers a relevant analytical framework through his theory of the legal system. Friedman divides the legal system into three interdependent components: legal substance (legal substance in the form of rules and norms), legal structure (institutional structure and law enforcement apparatus), and legal culture (legal culture in the form of public attitudes and behavior toward the law).¹¹ In the context of ETLE, these three components reflect the existing reality: the legal substance of ETLE is already in place, but the lack of readiness in the institutional structure and the still-underdeveloped legal culture of the public remain the primary obstacles to its implementation.

Furthermore, Soerjono Soekanto identified five factors that influence the effectiveness of law enforcement the legal framework itself, law enforcement personnel, resources and facilities, the community, and cultural factors. These five factors are interdependent, a weakness in one factor will affect the others. This framework is highly relevant for explaining why the implementation of ETLE in East Java still faces various obstacles despite its solid legal foundation. Law enforcement encompasses both preventive measures before violations occur and repressive measures afterward, and both must work synergistically to achieve sustainable traffic order.¹²

Electronic Traffic Law Enforcement (ETLE)

⁸ Jimly Asshiddiqie, "Makalah Pembangunan Hukum Dan Penegakan Hukum Di Indonesia". Disampaikan Pada Acara Seminar Menyoal Moral Penegak Hukum Dalam Rangka Lustrum XI Fakultas Hukum Universitas Gadjah Mada" (n.d.).

⁹ Soerjono Soekanto, *Pengantar Penelitian Hukum* (Jakarta: UI Press, 1986).

¹⁰ Satjipto Rahardjo, *Masalah Penegakan Hukum Suatu Tinjauan Sosiologis* (Bandung: Sinar Baru, 2009).

¹¹ P. Pertama et al., "The Lawrence Friedman's Construction of the Legal System Regarding Essential Equality Regulations in Trademark Rights," *Syiah Kuala Law Journal*, ahead of print, 2024, <https://doi.org/https://doi.org/10.24815/sklj.v7i2.38266>.

¹² Soejono Soekanto, *Faktor-Faktor Yang Mempengaruhi Penegakan Hukum* (Jakarta: Rajawali Press, 2005).

Traffic violations are acts that contravene traffic laws and regulations. According to Article 1(2) of the Road Traffic Law, traffic is defined as the movement of vehicles and people within the road traffic space, while according to Ramdlon Naning, a violation is an act that contravenes the provisions of applicable laws and regulations.¹³ The legal basis for enforcement is contained in Article 105 of the UULLAJ, which requires every road user to behave in an orderly manner and prevent actions that endanger traffic safety, with police enforcement resulting in traffic tickets as regulated in Article 1, Paragraph (4) of Government Regulation No. 80 of 2012.

The conventional traffic ticket system, which involves direct interaction between officers and violators, is recognized as being vulnerable to extortion and bribery. This situation has prompted the Indonesian National Police to implement the Electronic Traffic Law Enforcement system, which is believed to reduce extortion and bribery in traffic operations. The goal of implementing ETLE is to establish an electronic technology based traffic law enforcement system to objectively collect preliminary evidence of violations.¹⁴ Through camera recording mechanisms and intelligent software, direct face to face interaction between police officers and violators is minimized, thereby preventing corrupt practices while aligning with ICT advancements in the era of the Fourth Industrial Revolution. This study focuses on the implementation of ETLE in East Java to understand its effectiveness and the challenges of its implementation in the field.

RESEARCH METHODOLOGY

This study employs a normative legal approach, which involves examining and analyzing applicable positive legal norms, including legislation, legal principles, and relevant legal doctrines.¹⁵ The approaches used in this study include the statutory approach, the conceptual approach, and the historical approach. The sources of legal materials consist of primary legal materials in the form of legislation, including Law No. 22 of 2009, Government Regulation No. 80 of 2012, and Regulation of the Indonesian National Police No. 2 of 2025, as well as secondary legal materials in the form of legal journals, books, research reports, and other scientific sources relevant to the research topic.¹⁶ The collection of legal materials was conducted through a literature review by cataloging and identifying relevant laws and regulations as well as

¹³ Ramdlon Naning, *Menggairahkan Kesadaran Hukum Masyarakat Dan Disiplin Penegak Hukum Dalam Lalu Lintas* (Surabaya: Bina Ilmu, 1983).

¹⁴ T. Wahono, I. Isnaini, and W. Frensh, "Effectiveness of Traffic Law Enforcement and Alternative Models for Solving It at the Central Tapanuli Police," *Journal of Public Representative and Society Provision*, ahead of print, 2025, <https://doi.org/https://doi.org/10.55885/jprsp.v5i2.536>.

¹⁵ Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek* (Jakarta: Rineka Cipta, 2012).

¹⁶ Peter Mahmud Marzuki, *Penelitian Hukum*, Edisi revisi (Jakarta: Kencana, 2019).

related literature. All collected legal materials were then systematically classified and analyzed using a descriptive-analytical approach to gain a comprehensive understanding of the legal basis and legal protections in the implementation of ETLE in the East Java region.¹⁷

RESULT AND DISCUSSION

The Legal Basis for ETLE-Based Traffic Violation Enforcement in East Java

The enforcement of traffic violations using ETLE in Indonesia is based on a hierarchical regulatory framework that is structured in a tiered and complementary manner. At the highest level, Article 272 of the UULLAJ explicitly regulates that electronic equipment may be used to support enforcement activities in the field of traffic and road transport, thereby legitimizing electronic recordings as valid evidence in court. This provision serves as the constitutional basis for all technology-based enforcement mechanisms, including ETLE.¹⁸

The enforcement provisions of Article 23 of Government Regulation No. 80 of 2012 state that traffic violations may be enforced based on the results of on-site inspections, reports from the public, or recordings from electronic devices.¹⁹ This provision grants equal standing to ETLE camera recordings and on-site inspections as valid grounds for enforcement. At the technical-operational level, Article 1, point 11 of National Police Chief Regulation No. 2 of 2025 defines E-Tilang as an online, app based mechanism for the enforcement and resolution of traffic violation cases that is integrated with the system for the deposit of traffic fine payments, supplementing the regulatory hierarchy with detailed technical procedures.

The nationwide implementation of ETLE has shown significant growth throughout 2023, increasing by 35.7% from the previous year, with a total of 305,326 vehicles issued citations; currently, there are 1,575 ETLE devices in operation across Indonesia. In the East Java region, the East Java Regional Police Traffic Directorate has developed an innovative ETLE Mobile-based INCAR System aimed at educating the public about applicable traffic rules, including traffic signs, traffic control signals, speed limits, and required safety equipment. This demonstrates that national ETLE

¹⁷ Soekanto, *Faktor-Faktor Yang Mempengaruhi Penegakan Hukum*.

¹⁸ A. Leonita, I. Islah, and H. Hisbah, "Penegakan Hukum Terhadap Pelanggaran Lalu Lintas Di Kota Jambi Melalui Tilang Elektronik Atau Electronic Traffic Law Enforcement (ETLE)," *Jurnal Ilmiah Universitas Batanghari Jambi*, ahead of print, 2022, <https://doi.org/https://doi.org/10.33087/jiubj.v22i3.2823>.

¹⁹ A. Jalal and M Ramadhani, "PELAKSANAAN DENDA TILAGNG PROGRESIF MELALUI ELECTRONIC TRAFFIC LAW ENFORCEMENT (E-TLE) PADA PELANGGARAN LALU LINTAS," *Datuk Sulaiman Law Review (DaLRev)*, ahead of print, 2025, <https://doi.org/https://doi.org/10.24256/dalrev.v6i1.6421>.

regulations are being actively implemented in East Java through established institutional mechanisms.²⁰

According to the legal system theory of Lawrence M. Friedman, the legal substance of ETLE is in fact already sufficiently in place. The UULLAJ provides constitutional legitimacy, Government Regulation No. 80 of 2012 governs operational mechanisms, and National Police Regulation No. 2 of 2025 establishes technical procedures. Together, these three form a single normative framework that provides legal certainty for law enforcement officials in carrying out ETLE-based enforcement actions. The elimination of manual traffic tickets through National Police Telegram No. ST/2264/X/HUM.3.4.5/2022 further reinforces that ETLE is the only legitimate enforcement mechanism, while simultaneously closing the loophole for illegal fees that have long occurred in direct interactions between officers and violators.²¹

In 2024, the implementation of facial recognition technology in the ETLE system replaced the old practice of assessing fines based on vehicle registration numbers with direct fines imposed on traffic violators, so that penalties are applied directly to the individuals involved in the violation. This development reflects the fact that ETLE regulations are dynamic and continue to be strengthened as technology advances.

Nevertheless, there are regulatory gaps that need to be addressed. Existing regulations do not yet explicitly set minimum standards for ETLE camera infrastructure that must be met in every region. Research on the implementation of ETLE in Surabaya revealed a number of challenges in the form of technical and operational obstacles as well as a lack of public awareness and participation; thus, although the ETLE policy has proven effective in increasing compliance with traffic rules, improvements to technological infrastructure, expanded public outreach, and strengthened interagency coordination are still needed. This situation indicates that the strength of regulatory substance alone is insufficient without being balanced by institutional readiness and a culture of law two other components of Friedman's legal system theory that still need to be strengthened.

Legal Protection for Road Users Through the ETLE

Normative legal theory holds that road users are not merely the objects of enforcement but legal subjects with procedural rights that must be respected in every law enforcement process. Hadjon asserts that legal protection entails safeguarding

²⁰ A. Nugroho, "Electronic Traffic Law Enforcement (E-TLE) Mobile Sebagai Difusi Inovasi, Interoperabilitas Menuju E-TLE Nasional (Studi Implementasi E-TLE Mobile Di Wilayah Jawa Tengah)," *Jurnal Ilmu Kepolisian*, ahead of print, 2022, <https://doi.org/https://doi.org/10.35879/jik.v16i3.358>.

²¹ S. Pratama, W. Prasetyo, and Y. Setyadi, "KEBIJAKAN PEMANFAATAN ELECTRONIC TRAFFIC LAW ENFORCEMENT (ETLE) DI SATLANTAS SUKOHARJO," *EDUPEDIA* 7, no. 1 (2023), <https://doi.org/https://doi.org/10.24269/ed.v7i1.1933>.

human dignity and recognizing the human rights possessed by legal subjects under the law, thereby preventing arbitrary action. Based on this understanding, the legal protection provided by the ETLE system to road users can be analyzed in two forms preventive and repressive.

Preventive legal protection is achieved through transparency and objectivity in the enforcement process. The ETLE system minimizes the discretion of officers in the field because enforcement is based on objective camera footage, rather than the officers' subjective judgment, thereby normatively protecting road users from official abuse of power. The implications of ETLE law enforcement by police agencies include the imposition of various sanctions ranging from fines, driver's license demerit points, to vehicle registration suspension for violators who fail to pay the full traffic fine based on verified electronic evidence. Furthermore, pursuant to National Police Regulation No. 2 of 2025, before a traffic violation notice is issued, the vehicle owner first receives a confirmation letter providing an opportunity for clarification, including if the vehicle has changed ownership.²² This mechanism reflects the principle of *audi alteram partem* the right to be heard before a penalty is imposed which is one of the most fundamental forms of procedural protection in a rule of law state.

Repressive legal protection is implemented through two main instruments. First, traffic violation notices serve as valid and verified evidence. Pursuant to Article 272 of the UULLAJ in conjunction with Article 187 (b) of the Criminal Procedure Code, ETLE camera recordings possess evidentiary weight as valid documentary evidence in court, while also serving as a substitute for an indictment that meets the formal and material requirements as stipulated in Article 143 of the Criminal Procedure Code. Unlike manual traffic tickets, which are prone to manipulation, ETLE evidence in the form of digital recordings can be independently verified, thereby providing a stronger guarantee of factual accuracy. Second, the transparent fine payment mechanism via online banking, as regulated in Article 25 of Government Regulation No. 80 of 2012, eliminates the potential for irregularities in the payment process and provides road users with certainty regarding the amount of the penalty imposed.

Nevertheless, there are a number of normative weaknesses that need to be identified. First, existing regulations do not yet establish minimum standards for the equitable distribution of ETLE camera infrastructure, resulting in inconsistent law enforcement across regions. In East Java, this situation is reflected in the admission by several police units that they have not yet been able to conduct comprehensive public outreach and community engagement. This disparity risks violating the principle of equality before the law, as similar violations are treated differently solely due to the

²² Narullita, "Penerapan Sistem Elektronik Traffic Law Enforcement (ETLE) Dalam Penindakan Pelanggaran Lalu Lintas Di Wilayah Hukum Polda Jatim."

absence of cameras. Second, there are no explicit regulations governing an accessible appeal mechanism for road users who feel they have been treated unfairly, thereby placing road users at a disadvantage when facing the electronic enforcement system. Third, the weak synchronization of data between agencies specifically the National Police, District Courts, the Prosecutor's Office, and the banking sector has the potential to create legal uncertainty in the process of resolving traffic fines. From the perspective of Friedman's legal system theory, these three weaknesses reflect that the strength of regulatory substance is insufficient without being balanced by systemic improvements to the components of legal structure and legal culture.

CONCLUSION

based on the results of the research conducted, the conclusion is that Electronic Traffic Law Enforcement (ETLE)-based enforcement of traffic violations has a clear and strong legal basis within the Indonesian legal system. Regulations regarding the use of electronic evidence in traffic law enforcement are stipulated in Law No. 22 of 2009 on Road Traffic and Transportation, Government Regulation No. 80 of 2012, and Regulation of the National Police of the Republic of Indonesia No. 2 of 2025. The existence of these regulations demonstrates that the implementation of ETLE is part of efforts to modernize the traffic law enforcement system, focusing on effectiveness, transparency, and legal certainty.

From a legal protection perspective, the ETLE system normatively provides protection for road users through enforcement mechanisms based on objective and verified electronic evidence. Furthermore, the implementation of a confirmation letter mechanism prior to the imposition of penalties, as well as the electronic fine payment system, reflects the existence of procedural protection for the public as legal subjects in the traffic law enforcement process.

Nevertheless, the legal framework governing ETLE still requires refinement. Several aspects that have not yet been comprehensively regulated such as the mechanism for road users to file objections, system synchronization across agencies, and standards for the provision of ETLE facilities and infrastructure have the potential to create legal uncertainty in its implementation. Therefore, it is necessary to strengthen regulations and harmonize electronic based law enforcement systems to achieve traffic law enforcement that is not only effective but also ensures legal certainty and the protection of rights for the public.

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