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(57) Abstract :

The present invention discloses a system and method for secure, transparent, and interoperable land registry and property transfer using a public-private hybrid blockchain framework. The system integrates digitized land records from multiple governmental departments into standardized digital assets, with a public blockchain layer storing verifiable ownership proofs and a private permissioned blockchain layer maintaining detailed transactional and administrative records under controlled access. Smart contracts automate property transfer processes, including ownership validation, compliance verification, and automatic mutation of land records, while digital identity verification ensures authentication and prevents unauthorized access. Cryptographic techniques protect data integrity and privacy, and governance protocols define validator roles, consensus mechanisms, and regulatory oversight. The hybrid architecture enhances transparency, fraud resistance, scalability, and legal compliance, providing a comprehensive solution for modernizing land administration, property transactions, and dispute resolution. Accompanied Drawing [FIGS. 1-2]

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