

# Secure IoT-Based Electronic Voting Machine

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**Abstract:** *This paper aims to design and develop a biometric-enabled electronic voting machine. The proposed biometric electoral voting system allows the user to scan so that his or her credentials can be compared to existing fingerprint images which are already stored in the system's database. Counting is going on right away, making the voting process more efficient, faster, and safer. This system requires the identification of the voter's Aadhaar card and the voter's thumb impression. Voter's complete data, including all voter's fingerprint images, is collected and stored in the database. While voting, the voter gives their Aadhaar card details and puts their finger on the fingerprint scanner, the system looks for the seal already provided in the database and then compares it to authenticate the voter's identity. If the data matches, the system commands the voter to vote through the electronic voting machine. If the fingerprints do not match, the voter is not allowed to vote. If any voter tries to vote again then an alert message gets sent to the respective authorities and considered vote rigging*

**Keywords:** Enhanced EVM security, fingerprint authentication, fraud alert