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(54) Title of the invention : Multi-Layer Biometric-Based Voting System to Prevent Voter Impersonation.

<p>(51) International classification :G07C0013000000, G06F0021320000, G06V0040160000, H04L0009320000, G06F0021570000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Gundumi Sri Krishna Sudhindra Address of Applicant :15/265, NEAR NAVODAYA JR COLLEGE, GURAZALA, PALNADU. ----- Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Gundumi Sri Krishna Sudhindra Address of Applicant :15/265, NEAR NAVODAYA JR COLLEGE, GURAZALA, PALNADU. GURAZALA ----- 2)Palchuri Bhavya Varsha Address of Applicant :YECHURI VAARI STEERT, GURAZALA, PALNADU, ANDHRA PRADESH, 522415. GURAZALA ----- 3)B Suraj Patra Address of Applicant :Patra Residency, Shahid Laxman Nayak Nagar Lane 4, Nandanpur Road, Semiliguda, Koraput, Orrisa, 764036. Semiliguda ----- 4)Alimilla Abhinandan Address of Applicant :1-3-65, Church Compound, Korutla, jagtial, Telangana, 505326. Korutla ----- 5)Chinni P Lakshmi Venkata Sai Manikanta Address of Applicant :YECHURI VAARI STEERT, GURAZALA, PALNADU, ANDHRA PRADESH, 522415. GURAZALA -----</p>
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(57) Abstract :

A multi-layer biometric voting system is disclosed to prevent voter impersonation and enhance the integrity of elections. The system integrates five sequential layers of voter identity verification, including Aadhaar-based fingerprint authentication, facial recognition, dynamic OTP validation, EPIC (voter ID) matching, and geofencing. Each layer independently authenticates the voter using secure government and biometric data. A centralized backend system logs verification steps and enables audit trails. The architecture comprises a secure admin portal, voter terminal, and live status dashboard. This invention addresses critical vulnerabilities in existing EVM and VVPAT-based voting methods, especially impersonation and booth capturing, enabling a tamper-resistant, transparent, and scalable voting process suitable for Indian electoral infrastructure.

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