

E-Voting System

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Abstract: *India is world's largest democracy and the essence of any democracy lies in the fact that people choose their own representatives. But in present era, the fair election process is facing a lot of problems like booth capturing, rigging, fake voting, tampering with the Electronic Voting Machines (EVMs) etc. Being responsible engineers, it's our duty to do something to curb this menace. In the commonly used EVMs, the voting process takes place electronically and this eliminates the use of ballot paper to cast votes in elections as it is very time consuming and errors might crawl in intentionally or unintentionally.*

Today authenticity of the voter is a big concern and it also should be made sure that a same voter is not able to vote two times. This issue can be dealt with by introducing biometric based voting system, where the authenticity of a voter is established based on fingerprints. Hence, the principle shall be one person, one authentic vote. In the present work, a prototype fingerprint based biometric voting machine has been developed.

It is proposed that a feature that will link the Aadhaar database of Unique Identification Authority of India (UIDAI), Govt. of India, New Delhi; can be embedded. This shall facilitate all the voters to get registered on the portal automatically, which can be classified on the basis of regions and constituencies based on their unique identification i.e. their finger prints. This shall enable the device developed in the present research work, at the national level of application by using it in elections conducted around the country. This shall lead to a significant contribution for the betterment of the Indian election system

Keywords: India's democracy, Election integrity, Biometric voting system, Fingerprint authentication

