**INVENTION DISCLOSURE FORM**

**INNOTECH PROJECT ID**

**DEPARTMENT**

**Ques.1. Title of your invention: SecureVote**

**Ques.2. Type of Invention: Software Solution**

**Ques.3. Brief Description of your invention: SecureVote is an innovative e-voting solution which is based on the Blockchain. It allows for a transparent and durable election process.**

**Ques.4. Objective of your invention: The objective of SecureVote is to enhance the current electoral process and establish a structure that is transparent, secure and convenient to process.**

**Ques.5. How to use the invention: Users only need to register using their Aadhar Card, and then cast a vote to the available parties on the portal. The vote casted will generate an NFT in the user’s wallet which is used to verify the user’s vote.**

**Ques.6. Problem your invention is solving: SecureVote will allow a transparent and tamper-free approach to the elections and make the public more aware about the voting process.**

**Ques.7. Purpose and object of Invention: The purpose of SecureVote is to make India’s election process free of any malpractices and the public more aware of the voting rights they have.**

**Ques.8. Discuss potential commercial application of the invention: SecureVote can be used at all stages of election, be it district level, state level or national level elections. This allows a consistent experience across all domains of voting.**

**Ques.9.** **Provide any additional material (such as photographs, reports, publications, and references to texts or other information material) which may be helpful to an understanding of the invention identify and indicate the specific relevance of each.**

Research Paper: <https://drive.google.com/file/d/1IO3xuZQ8vBMELzZdVrRjEeYFMNMvR6sV/view?usp=sharing>

**Ques.10. Abstract:**

**Electronic voting (e-voting) has clear advantages over traditional paper-based systems, such as improved efficiency and reduced errors. However, gaining widespread public trust in e-voting systems remains a significant challenge, particularly in addressing their potential vulnerabilities. Blockchain technology has emerged as a promising solution to enhance the security and reliability of e-voting systems. This project explores how blockchain's transparency and cryptographic capabilities can create a secure, efficient, and user-friendly e-voting infrastructure. Using the Multichain platform, it aims to design and implement an e-voting mechanism that meets critical requirements like legality ,accuracy, and security. Despite these advancements, digital voting still faces obstacles that may limit its acceptance. Blockchain’s decentralised nature and end-to-end verification provide a strong foundation for tackling these issues, offering a pathway to more trustworthy and robust electronic voting systems.**

**Ques.11. Summary of the invention:**

**SecureVote is an innovative e-voting solution which is based on the Blockchain. It allows for a transparent and durable election process.**

**Ques.12. Detail description of invention with methodology:**

**The proposed e-voting framework draws inspiration from the Prêt à Voter system, ensuring essential features like privacy, eligibility, receipt-freeness, and verifiability. Key elements include:**

**1. A user-friendly web-based interface for seamless voting.**

**2. Cryptographic hashes for vote verification while maintaining voter anonymity.**

**3. Biometric-based mechanisms to prevent duplicate voting.**

**4. Administrative tools for efficient management of voters, constituencies, and candidates.**

**5. Voter confirmation via email containing transaction IDs, ensuring transparency and confidence in the system.**

**Ques.13. Applicant and inventor details:**

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