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**International Journal of Research Publication and Reviews**

Journal homepage: www.ijrpr.com ISSN 2582-7421

# ONLINE VOTING SYSTEM

***D.C. Manohar[1], Dhanush.A[2], Kiran Kumar M.N[3]***

[1]Student, Department Of BCA, BMS College Of Commerce And Management, Bengaluru, Karnataka, India
[2]Student, Department Of BCA, BMS College Of Commerce And Management, Bengaluru, Karnataka, India
[3]HOD, Department Of BCA, BMS College Of Commerce And Management, Bengaluru, Karnataka, India

ABSTRACT :

The Online Voting System is a web-based application developed to facilitate electronic voting. The system is designed to provide a reliable and secure platform for voters to cast their votes using the internet. The project was developed using HTML, CSS, JavaScript, PHP, and MySQL technologies. The system has a login page, registration page, and dashboard page for voters to access. The login page is the first page that users see when they access the system. Registered users can log in to the system using their mobile number, password, and role. The role is used to distinguish between voters and groups or candidates. registration page is used to register new users in the system. New users are required to provide their name, mobile number, password, confirm password, address, image, and role. The dashboard page is where the voters can view their profile information like name, image, voting status, and mobile number on the left side of the page. On the right side of the page, there will be a list of groups or candidates whom they can cast their votes. The system ensures that each voter can only vote once and that duplicate voting is not possible. The system uses advanced security features to protect the integrity of the voting process.

## 1. INTRODUCTION :

The motivation behind the development of the Online Voting System is to address the challenges and inefficiencies associated with traditional voting methods. Elections are a fundamental aspect of democratic societies, providing citizens with an opportunity to elect leaders who represent their interests and values. However, the traditional voting process is often plagued with challenges such as long queues, voter intimidation, and logistical problems associated with setting up and managing physical polling stations. The Online Voting System was developed to provide a convenient, efficient, and accessible way for citizens to participate in the voting process. The system enables registered voters to cast their votes using the internet, thereby eliminating the need for physical travel to the polling stations. The system is designed to provide a secure and reliable platform for voters to cast their votes, ensuring that the integrity of the voting process is protected. The system also saves time and costs associated with hiring and training election officials and setting up physical polling stations. By eliminating the need for physical polling stations, the Online Voting System reduces the risk of voter intimidation and manipulation. Voters can cast their votes from the comfort of their homes or offices, reducing the risk of exposure to COVID-19 or other health risks**.**

## 2.METHODOLOGY :

### *Design*

Technology Stack The system will be developed using HTML, CSS, JavaScript, PHP, and MySQL. Compatibility: The system must be compatible with all major web browsers such as Google Chrome, Mozilla Firefox, Safari, and Internet Explorer. Scalability. The system must be scalable to accommodate a large number of users and voting data without affecting its performance and response time. Accessibility: The system must be designed to be accessible to users with disabilities, ensuring that they can use the system effectively.

### *2.2 Development Preprocess*

The traditional voting process has long been associated with various challenges and inefficiencies that have affected the integrity and transparency of the voting rocess. The challenges associated with traditional voting include long queues, logistical challenges associated with setting up polling stations, voter intimidation, and manipulation. The traditional voting process requires voters to physically travel to polling stations, which can be time-consuming and inconvenient, leading to low voter turnout. In addition, the process of setting up polling stations and hiring and training election officials is costly and time-consuming.

### *Principles*

Limited Accessibility: The online voting system may not be accessible to individuals who do not have access to the internet, smartphones, or computers. Security Issues Although the system is designed to be secure, there is still a risk of data breaches, hacking, and other security issues. Voter Authentication The system must ensure the authenticity of the voters identities and prevent fraudulent registrations to maintain the integrity of the voting process.

***Development Lifecycle***

The project perspective is to improve the democratic process by providing areliable and transparent way of conducting elections. The system aims to eliminate the challenges associated with traditional voting systems, such asballot stuffing, miscounting, and long queues. By using an online platform, voters can access the voting system from the comfort of their homes or offices, reducing the need for physical polling stations.

## 3.RESULTS AND DISCUSSION :

The online voting system must be tested thoroughly to ensure that it is free from bugs, errors, and security vulnerabilities. The testing process involves different types of testing such as black box testing, white box testing, and functional validation testing. The following is the test plan for the online voting system. Test the registration functionality by ensuring that the user can register successfully and their details are stored in the database. Expected result The user interface should be responsive and work well on different devices and screen sizes. The project team carried out thorough testing of the system, including black box testing, data validation test cases, white box testing, and functional validation test cases. The testing was successful, and the system met all the expected standards and requirements.

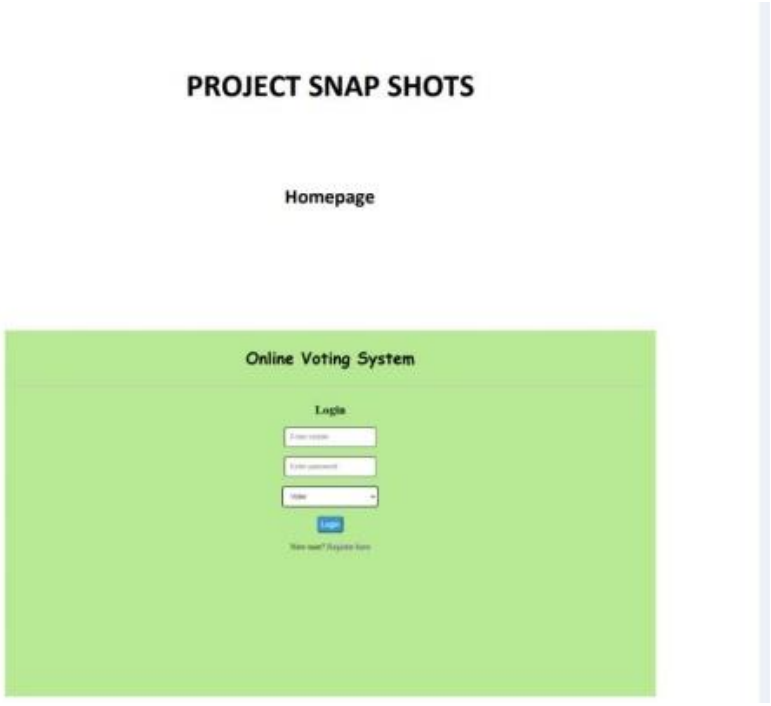


**Fig1: Home page**

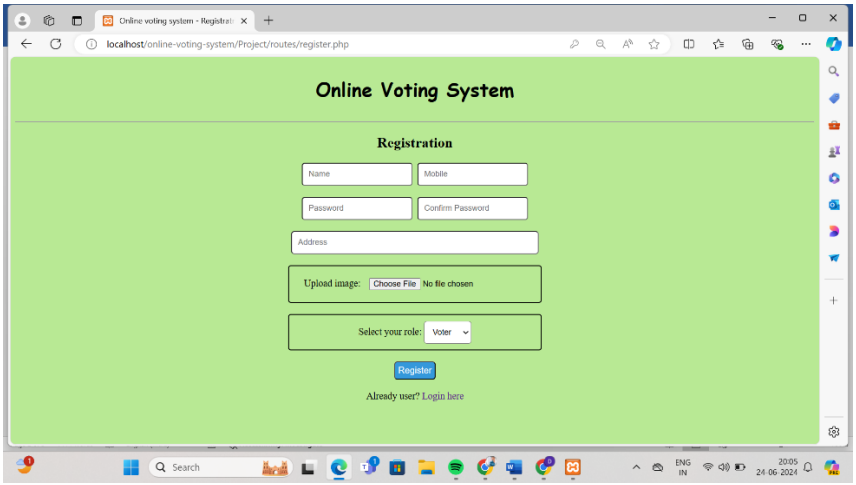


**Fig2: Admin page**

In conclusion, the Online Voting System is a robust and efficient solution for conducting voting processes over the internet. The system provides various features such as user registration, login, and voting options, and ensures security and data privacy. The development of the system involved extensive research and analysis of existing systems, and the implementation of various software design and development principles.

## 4. CONCLUSION :

The project team carried out thorough testing of the system, including black box testing, data validation test cases, white box testing, and functional validation test cases. The testing was successful, and the system met all the expected standards and requirements. Overall, the Online Voting System is a highly useful and innovative solution that can help save time, energy, and cost associated with traditional voting methods. It has the potential to improve the efficiency and transparency ofvoting processes, making it a valuable tool for governments, organizations, and communities. Based on the project implementation and testing, the following recommendations are made The system should be further optimized for better performance, especially during peak usage periods. The user interface can be further improved to enhance the user experience and make it more user-friendly. Additional security measures can be implemented to ensure that the system is resistant to hacking attempts and unauthorized access. The system can be scaled up to support larger groups of users, such as in national or international elections. The project team should consider implementing a feedback mechanism for users to provide suggestions for improvement or report any issues. Overall, the Online Voting System has significant potential for wider implementation and adoption. By incorporating these recommendations, the system can be further improved to provide a reliable, secure, and efficient platform for conducting voting processes over the internet. So the final conclusion we make here is that our new online voting system is much better and easy to use than traditional voting system. Almost all problems that we have discussed in existing voting system are resolved by the help of this application. So the launch of this application would create many opportunities for those who are frequently involved in conducting elections for different purposes. By incorporating these future scope areas, the Online Voting System can continue to evolve and provide a reliable, secure, and efficient platform for conducting voting processes over the internet, while addressing the changing needs and expectations of users. Integration with blockchain technology to enhance security and transparency in the voting process. Development of a mobile application to provide more flexibility and accessibility to users. Expansion to support multiple languages and internationalization to enable voting across different countries and regions. Integration with biometric authentication technologies to ensure the identity of voters and prevent fraud. Use of artificial intelligence and machine learning algorithms to improve the accuracy and reliability of the voting process. Integration with social media platforms to increase user engagement and participation in the voting process. Development of analytics and reporting features to provide insights and trends on voting patterns and behavior.

## 5. REFERENCES :


1. B. Shrestha and S. Khanal, & Online Voting System, " International Journal of Computer Science and Network Security, vol. 16, no. 12, pp. 105-112, 2016.
2. N. D. Pham and T. T. Nguyen, & quotidian and implementation of an online voting system based on Blockchain technology, " 2018 International Conference on Advanced Computing and Applications (ACOMP), Ho Chi Minh City, Vietnam, 2018, pp. 86-91.
3. M. A. Alamri, M. S. Khan, M. I. Alghamdi and A. A. Alaska, "An online voting system based on biometric authentication and blockchain technology, " 2019 IEEE 4th International Conference on Cloud Computing and Big Data Analytics (ICCCBDA), Chengdu, China, 2019, pp. 7-11.
4. S. Kim, H. Choi and S. Park, "Design and Implementation of Online Voting System for E-government Services," 2017 14th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI), Jeju, South Korea, 2017, pp. 352-355.
5. S. J. Gawali and A. N. Gaikwad, & quot; Online Voting System using Artificial Intelligence and Machine Learning, " 2020 International Conference on Computer Science, Engineering and Applications (ICCSEA), Pune, India,2020, pp. 1-4.