



## Secure Internet Banking

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### ABSTRACT:

Internet banking represents an innovation of electronic commerce in the banking and financial sector, primarily operating in the business-to-customer domain. It provides a range of online services such as balance enquiries, fund transfers and account opening, essentially digitizing traditional banking services for delivery over the internet. In addition, banks are expanding payment services for customers shopping on various e-commerce platforms. Despite the enormous benefits and opportunities that the Internet offers, it also brings various security risks. To deal with these risks and ensure secure online transactions, we propose to implement a "Secure Internet Banking System" that integrates biometric features to protect customer activities.

Keywords: Secure Internet Banking.

### 1. Introduction

About the project:

Internet banking represents an innovation of electronic commerce in the banking and financial sector, primarily operating in the business-to-customer domain. It provides a range of online services such as balance enquiries, fund transfers and account opening, essentially digitizing traditional banking services for delivery over the internet. In addition, banks are expanding payment services for customers shopping on various e-commerce platforms. Despite the enormous benefits and opportunities that the Internet offers, it also brings various security risks. To deal with these risks and ensure secure online transactions, we propose to implement a "Secure Internet Banking System" that integrates biometric features to protect customer activities.

### II. SYSTEM ANALYSIS

#### Existing system:

The authentication schemes and attacks outlined in the primary article adhere to the prevailing standard of knowledge found many publications dealing with user authentication. However, many of these resources only offer a broad overview of the schemes and associated attacks, without attempting to contextualize them in a coherent way to present a comprehensive security landscape.

#### Disadvantages:

- Security Issues: Many websites lack adequate security measures to ensure the safety of customers' funds in the cyber world.
- Misconceptions: Fear of the perceived cost of online banking discourages many individuals from using it and leads them to opt for traditional banking instead.
- Lack of awareness: Lack of media coverage and promotion of internet banking contributes to lack of awareness and hinders its widespread adoption.

#### Proposed system:

This proposes the security for the Smart Online Banking System (SOBS) by using the biometric prints, it can become more secure and reduces a lot of threats can be made by an intruder. Once the security is in place, banks could speed up transactions, add new features and will be able to get more cloud storage space.

#### Advantage:

- Convenience: Online banking sites offer unparalleled convenience, operating 24/7 and accessible at the click of a mouse, unlike traditional brick-and-mortar banks.

- Ubiquity: Whether you are across the country or abroad, online banking provides instant access to manage your financial affairs anytime, anywhere and ensures hassle-free 24/7 services.
- Transaction Speed: Online banking platforms typically process and confirm transactions as fast as or even faster than ATM processing speeds.
- Efficiency: With online banking, you can effortlessly oversee all of your accounts, including IRAs, CDs and securities, from a single secure platform, simplifying financial management.
- Efficiency: Many online banking portals provide advanced tools such as account aggregation, stock quotes, rate alerts and portfolio management programs that allow you to manage all your assets efficiently.

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### III. SYSTEM METHODOLOGY

- Create Account
- Log in
- Update profile
- View profile
- Transfer of funds

#### **Create an account:**

This module serves the user to create a new account to connect to online banking services. The user is required to fill in his personal details and add a Biometric ID and at the end of the process he is automatically assigned as a user.

#### **Login:**

This module is used by all users to login to the account. The user is required to enter his username, password and biometric ID. After logging in, the user will be redirected to the user's home page

#### **Profile Update:**

Update profile module will be used to update or change any user details like email, phone number, city, state etc.

#### **View profile:**

This module is an automatically generated page when the user clicks the view profile button. Contains user account details such as name, account balance, email address, address and city.

#### **Transfer of funds:**

This module is a user page after login where he can transfer the amount to another account by entering the amount to be transferred and the account number to which it is to be transferred.

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### IV. CONCLUSION:

Online banking has evolved into a battleground between financial institutions and cyber attackers on public networks. However, with the introduction of the latest verification methods outlined in this paper, banks are poised to gain a significant advantage. Both solutions proposed in this article offer robust security measures against common attacks with a certificate-based approach that is uniquely capable of thwarting online channel breach attacks. We hope this document will inspire you to apply this critical security feature to non-PKI based mobile authentication solutions. Potential future threats such as sophisticated attacks on the client platform such as content manipulation can be effectively countered by enabling the transaction signing feature. From the user's point of view, the primary difference between the two solutions is that the former supports mobility, while the .

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