

# MORSE-CODE SECURITY BREACH FOR ARMY CREDENTIAL

**Surya Venkatesh, Rohith M, Tanusha v, Sheetal P S, Radha R**

Student, Student, Student, Student, Professor  
ISE,

Sai Vidya Institute of  
Technology, Rajanukunte, Bengaluru

**Abstract** - In order to address analytically challenging issues, Technology, algorithm design, and data inference are all combined in data science. Such as handle massive volumes of data, practically all industries, including those in education, finance, healthcare, and business, use data science The operational uses range from detecting cancer to estimating stock movement; when used for person identification, speech recognition, and text prediction in audio processing. Since the majority of individuals worldwide are having issues with security and authentication. For those who choose to use Morse code for their own authentication, we can offer real-time eye tracing for password authentication. As is well documented, technological developments in authentication and authorization have gotten a lot of support in the twenty-first century. Personal identifying numbers (PINs) In the latter part of the 1990s, are often utilised for user authentication and security. These days, we prefer to employ a different tactic because PIN codes are so easy to crack. The free of charge gaze-based Password entering method, on the other hand approaches for PIN authentication leave no physical traces and provide a stronger password entering option. The phrase "gaze-based authentication" describes the process of identifying the eyes in a series of frames and tracking their centers over time. For password verification, Morse code will be utilized, and digits will be depicted by slashes and dotted lines. This model provides a facial identification and monitoring method of PIN recognition using a sophisticated camera in conjunction with a live application allowing gaze- based Password entry.

**Index Terms** - Morse-code, gaze-based authentication, PIN code, eye tracking.

## I. INTRODUCTION

Data inference, algorithm design, and technology are all combined in data science, a multidisciplinary field. To manage vast volumes of data, practically all industries, including those in education, finance, healthcare, and business, use data science. Applications in real-world settings include text prediction, audio processing for speech, image processing for cancer prognosis, and identity recognition. Since the majority of individuals worldwide are having issues with security and authentication. For those who choose to use Morse code for their own authentication, we can offer real-time eye tracing for password authentication.

## II. METHODOLOGY

**Registration:** The user enters his credentials on the first page that appears in this module. The username, password, and keyword that you input will be saved in a separate text file. The front-end implementation of the project is used to represent this module.

**Login:** The user or administrator inputs their credentials in this module in accordance with the information provided across the registered module. Once logged in, the client can use gaze-based authentication to confirm the password. The back-end implementation of the project is used to depict the conversion of eye blinks to morse code.

**Forgot password:** a user forgets their password in this module, they can generate a new one by typing the keyword from the register module.

## III. LITERATURE SURVEY

[1] **Mr. Kaustubh S. Sawant<sup>1</sup>, Mr. Pange P.D;** The goal of this effort is to To input and recognize gaze-based personal identification numbers (P employ a smart webcam with real-time eye recognition and tracking. NI Vision Studio and Javafx

are used for eye tracking and real-time on-camera recording of the eye centre location. The clever camera enables data collecting and analysis on-board. Crane Girder Design [4]

[2] **Sota Shimizu, Takumi Kadogawa, Shu-ichi Kikuchi, Takumi Hashizume**, the primary objective of the project is a quantitative analysis of eye movement between the two groups. Using an eye-tracking device, a time series of eye-movements are recorded from each subject. They are changed using a straightforward parametric model of the tennis forehand shot, when they are looked at with a significant test.

[3] [5] **Hideyasu Sumiya, Takuma Itoh**, The eye-ball movement is thought to be a factor that is deleted from the electroencephalogram (EEG) as an artefact, and this model suggests research that seeks to quickly identify BMI (Brain Machine Interface) patterns of that movement. We investigated the visual stimuli ERP's repeatability and its characteristics, which include constancy, high voltage, and a 50ms rapid response. As an ERP pattern discriminator, this study recommends three methods for extracting and detecting different patterns caused by varied directional ocular motions.

#### IV. EXISTING SYSTEM

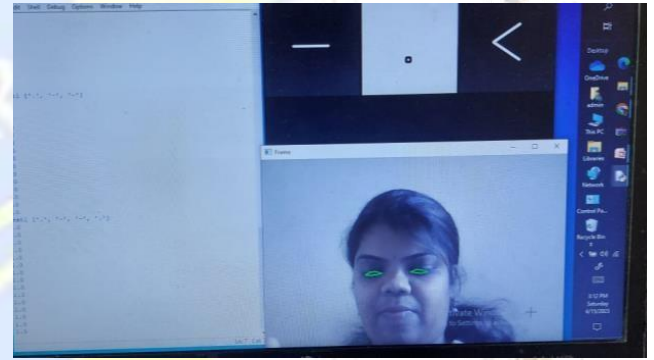
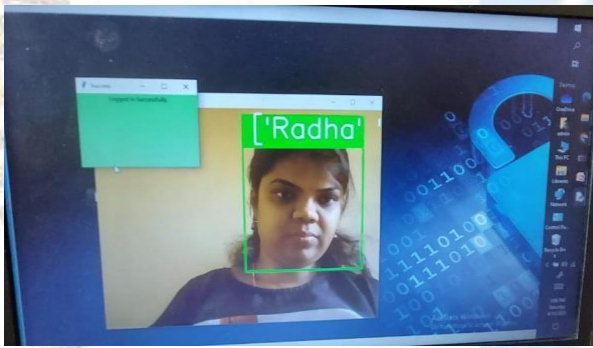
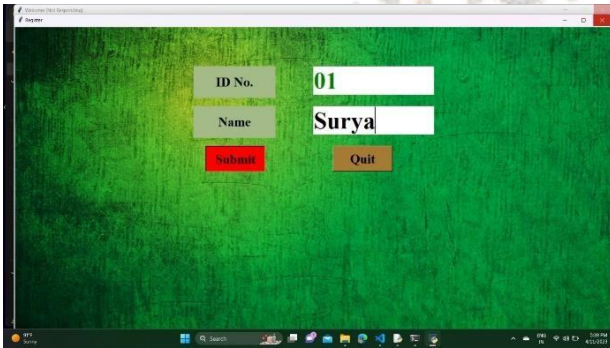
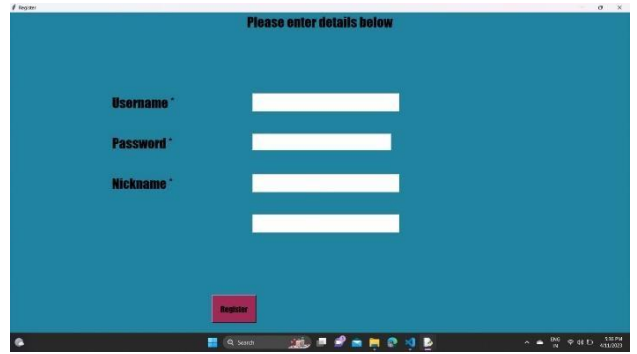
In the twenty-first century, it has been supported to advance the technology of authentication and authorization. Since the late 1990s, personal identification numbers (PINs) They have been used for authentication of users and protection widely. We prefer to use a different strategy these days because PIN codes are so simple to hack. On the opposite hand, independently gaze-based PIN input approaches for authentication by PIN create no tangible traces and offer a more secure password entering alternative. The technology at hand does provide a safe way to authenticate partially sighted people.

#### V. PROPOSED SYSTEM

The model consists of a back-end database with user interface. The user can interact with the system thanks to the creation of the GUI. Frontend: The user must first register by giving a user ID of their choosing, a password (PIN), and a keyword. The user's user id and password are required to log in after registration. The PIN is captured using a web camera as input in a form of Morse code. The PIN is captured using a web camera as input in a form of Morse code. Backend: - The user-input PIN that was stored in the database during registration is compared to the entered PIN. The screen closes if the PIN entered is incorrect. The successful authentication message is displayed if the PIN entered. If a user forgets his password, he can use the keyword to authenticate, replace the current password with a new one, and generate a different OTP for each login if necessary.

#### VI. CONCLUSIONS

Our project essentially provides two-factor authentication. To safeguard an account or system, two layers of protection are essentially provided by two factor authentication. Here, we're using mouse clicks to turn letters or numbers into source code and gaze-based authentication to further increase security. This model demonstrates an ongoing programmer for eye recognition and tracking for PIN identification applying a smart footage, as well as gaze-based PIN entering.



## VI. REFERENCES

- [1] S. Muller, M. Deicke, and R. W. De Doncker, "Doubly fed induction generator systems for wind turbines," *IEEE Ind. Appl. Mag.*, vol. 8, no. 3, pp. 26–33, May/June 2002.
- [2] D. Zhi and L. Xu, "Direct power control of DFIG with constant switching frequency and improved transient performance," *IEEE Trans. Energy Convers.*, vol. 22, no. 2, pp. 110–118, Mar. 2007.
- [3] National Grid Transco, Appendix 1. (Feb. 2004). Extracts from the grid code—Connection conditions [Online].
- [4] IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems, IEEE Standard 519-1992, 1993.
- [5] J. Hu, H. Xu, and Y. He, "Coordinated control of DFIG's RSC and GSC under generalized unbalanced and distorted grid voltage conditions," *IEEE Trans. Ind. Electron.*, vol. 60, no. 7, pp. 2808–2819, Jul. 2013.
- [6] H. Xu, J. Hu, and Y. He, "Integrated modeling and enhanced control of DFIG under unbalanced and distorted grid voltage conditions," *IEEE Trans. Energy Convers.*, vol. 27, no. 3, pp. 725–736, Sep. 2012.

