

A Graphical Authentication using Pixel Selection and Cued Click Points Selection

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Abstract: *We have introduced a new way of Working with Pixel Image Verification and Cude Click Points. We have evaluated the usefulness and security of this project. The human mind remembers the image faster than the text. Users usually create passwords using a script, but by using these passwords there are many obstacles. Photo password that is easy to remember but hard to guess from hackers. Users can easily remember a strong password and passwords that can be remembered are easy to guess. This method is used to provide security. As technology grows security must be provided from now on we provide security using the alphanumeric method. There is another method called biometric but more expensive than Graphical password authentication. So we came up with this entry function using image pixel selection and point-click methods. The main purpose of the login operation is to use image pixels and point-click techniques to provide improved security for users The main goal of this project is to support users in choosing the best and safest passwords. The user will click on a specific part of the image to verify authenticity. Attractive click points will provide a series of images to increase security as it will give the attackers a greater burden. A series of images will be provided based on previous clicks of the image. Psychological research shows that one can remember a visual image beyond a series of alphanumeric characters. So remembering points in user pictures will be easier and it will be harder for the attacker to reach. Attractive clicks help users to select random areas to increase security. The advantages of a Graphical Password Scheme are ease of use and great security.*

Keywords: Graphical Password, Computer security, Cued Click Point (CCP), Computer Authentication

REFERENCES

- [1]. Y. Januzaj, A. Luma, Y. Januzaj, V. Ramaj., "Real-time access control based on face recognition," in International Conference on Network security Computer Science (ICNCS-15), pp. 7-12, 2015.
- [2]. M. Sahani, C. Nanda, A. K. Sahu, B. Pattnaik., "Home security system based on face recognition," 2015 Int. Conf. Circuits, Power Comput. Technol. [ICCPCT2015], pp. 1-6, 2015.
- [3]. G. Senthikumar, K. Gopalakrishnan, V. S. Kumar., "Embedded image capturing system using the raspberry pi system," vol. 3, No. 2, pp. 213-215, 2014.
- [4]. M. R. Mulla., "Facial image based security system using PCA," pp. 548-553, 2015.
- [5]. M. H. Jusoh F. Bin Jamali, "Home security system using internet of things," 2017.
- [6]. S. S. Liew, M. Khalil-Hani, S. Ahmad Radzi, R. Bakhteri., "Gender classification: A convolutional neural network approach," Turkish J. Electr. Eng. Comput. Sci., vol. 24, No. 3, pp. 1248-1264, 2016.
- [7]. Karmajit Patraa, Bhushan Nemadab*, Debi Prasad Mishrac, Prajnya Priyadarsini Satapathyd "Cued-Click Point Graphical Password Using Circular Tolerance to Increase Password Space and Persuasive Features" 2016.
- [8]. A. R. Syafeeza, S. S. Liew, R. Bakhteri., "Convolutional neural networks with fused layers applied to face recognition," Int. J. Comput. Intell. Appl., vol. 14, No. 3, 2015.
- [9]. A. R. Syafeeza, M. Khalil-Hani, S. S. Liew, R. Bakhteri., "Convolutional neural network for face recognition with pose and illumination variation," Int. J. Eng. Technol., Vol. 6, No. 1, pp. 44-57, 2014.
- [10]. K. Syazana-Itqan, A. R. Syafeeza, N. M. Saad, N. A. Hamid, W. H. Bin Mohd Saad., "A review of finger-vein biometrics identification approaches," Indian J. Sci. Technol., vol. 9, No. 32, 2016.

- [11]. S. Ahmad Radzi, M. Khalil-Hani, R. Bakhteri., "Finger-vein biometric identification using convolutional neural network," Turkish J. Electr. Eng. Comput. Sci., vol. 24, No. 3, pp. 1863-1878, 2016.
- [12]. Devidas Thosar, Review on Advanced Graphical Authentication to resist shoulder surfing attack. DOI: 10.1109/ICACAT.2018.8933699, 19 December 2019, Published by IEEE.
- [13]. Devidas Thosar, Review on click points graphical passport, Volume 5 issue 2, August 2018, by International Journal of Research and Management(IJERN).