Raspberry PI Based High Protection Voice Identification Based Bank Locker Security System with Live Image Authentication

Saurabh Mahajan[1], Anup Sarode[1], Rahul Warkhede[1], Mrs P.R. Shahane[2]
UG Students, Department of E&TC Engineering[1]
Assistant Professor, Department of E&TC Engineering[2]
STES'S Sinhgad Academy oF Engineering, Pune, Maharashtra, India

Abstract: *Bank security is an important thing as we people grow and achieve many things that are important for each individual we need a proper security for such things as could be some important papers, jewellery, personal stuffs etc . The world has changed a lot from the old and mechanical stuffs to the modern electronics world. So to keep up with the advancement many ideas are proposed to develop the security of the banks and one of the best ideas are using biometrics. We can use face and voice authentication as a base for this idea and we can develop more advanced security with the development in technology.is Privacy and Security are two universal rights and to ensure that in our daily life we are secure, a lot of research is going on in the field of home security, and IoT is the turning point for the industry, where we connect everyday objects to share data for our betterment. House security matters and people always try to make life easier at the same time. That's why we put up with this project, Face Recognition Door Lock System. Facial recognition is a well-established process in which the face is detected and identified out of the image. We aim to create a smart door, which secures the gateway on the basis of who we are. We want to develop this system based on Raspberry-pi 3, to make the house only accessible when your face is recognized by the recognition algorithms from Open CV library and meanwhile you are allowed by the house owner, who could monitor entrance remotely.*

Keywords: Raspberry pi kit , Camera module , Face detection

REFERENCES

[1] Jie-Ci Yang et. all An Intelligent Automated Door Control System Based on a Smart Camera. Mar-2018

[2] Kanza Gulzar "Automobile security based on detection & recognition of Human face", Conference Paper, June 2017.

[3] S Rajkumar, J Prakash, "Automated attendance using Raspberry pi", International Journal Of Pharmacy & Technology (IJPT), Vol. 8, No. 3, pp. 16214-16221, September 2016.

[4] Anoop Mishra "Embedded Image Capturing & Digital Converting Process using Raspberry pi System interfacing and Comparison of Generation 2 verses Generation 1 models in Raspberry pi" et al, /(IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 6 (2), 2015, 1798-1801.

[5] W. F. Abaya, J. Basa, M. Sy, A. C. Abad and E. P. Dadios, "Low cost smart security camera with night vision capability using Raspberry Pi and OpenCV," 2014 International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment and Management (HNICEM), Palawan, 2014, pp. 1-6

[6] Gopal Krishnan, K., Sathish Kumar V. 2014 Embedded Image Capturing Using Raspberry Pi System.

[7]Tudor Barbu "Gabor Filter –Based Face Recognition Technique, ''Processing of the Domain Academy, Series A, Vol 11, No 31 2010, PP.277-283.

[8] Paul Viola, Michael J. Jones Robust Real-Time Face Detection, International Journal of Computer Vision 57, 2004.

[9] S. Nazeem Basha et all An Intelligent Door system using Raspberry pi and Amazon Web services IOT.

[10] Richard Grimmett, Raspberry Pi Robotic Projects. Packt Publishing

[11] Priya Pasumarti1, P. Purna Sekhar "Classroom Attendance Using Face Detection and Raspberry-Pi" International Research journal of Engineering and Technology (IRJET), Volume: 05 Issue: 03. p3-p5,

[12] T. M. Inc., "Train a Cascade Object Detector," [Online]. Available: http://www.mathworks.se/help/vision/ug/traina-cascadeobject-

[13] Raspberry Pi Face Recognition Treasure Box Created by Tony Di Cola.

[14] Kuldeep Soni developed a system with an advanced surveillance camera capable of face detection and at the same time recognizing the face.