

# RAKSHA - The Smart Security System

Mr. Arun Kumbi<sup>1</sup>, Mr. Kirankumar B K<sup>2</sup>, Mr. Prasad S<sup>3</sup>, Ms. Sahana S D<sup>4</sup>, Mr. Vishalkumar B<sup>5</sup>  
Assistant Professor<sup>1</sup>, Students<sup>2,3,4,5</sup>

Smt Kamala And Shri Venkappa M. Agadi College of Engineering and Technology, Laxmeshwar, India  
arunk.cse@agadiengcollege.com, bkkirankumar123@gmail.com, prasadsalimath7@gmail.com,  
sahanad0103@gmail.com, vishalkumarmb9380@gmail.com

**Abstract:** *Web-based technology has improved drastically in the past decade. As a result, security technology has become a major help to protect our daily life. In this project, we propose a robust security based on face recognition system with security for gas and fire. In particular, we develop this system to give access into a room for authenticated users and help us in the condition where there is LPG gas leak or fire catch. The classifier is trained by using a new adaptive learning method. The training data are initially collected from live images. The accuracy of the classifier is incrementally improved as the user starts using the system. A novel method has been introduced to improve the classifier model by human interaction and social media. By using a deep learning framework- TensorFlow, it will be easy to reuse the framework to adopt with many devices and applications. In addition to face Security system, we are going with Pin conformation, OTP and Finger print series.*

**Keywords:** Security System

## REFERENCES

- [1]. X. Geng, Z. Zhou and K. Smith-Miles, "Individual Stable Space: An Approach to Face Recognition Under Uncontrolled Conditions," in IEEE Transactions on Neural Networks, vol. 19, no. 8, pp. 1354-1368, Aug. 2008, doi:10.1109/TNN.2008.2000275.
- [2]. Y. Wang and J. Su, "Symmetry description and face recognition using face symmetry based on local binary pattern feature," Proceedings of the 32nd Chinese Control Conference, Xi'an, 2013, pp. 3955-3960.
- [3]. Wicaksono, M F., & Rahmatya, M D. (2020). Implementasi Arduino dan ESP32 CAM untuk Smart Home. Jurnal Teknologi dan Informasi (JATI) Volume 10 No. 1 March Edition 2020, P-ISSM 2088-2270, EISSN 2655-6839.
- [4]. Setiawan, Andi., & Purnamasari, Irma, Ade. (2010). Pengembangan Passive Infrared Sensor (PIR) HC-SR501 dengan Microcontrollers ESP32-CAM Berbasis Internet of Things (IoT) dan Smart Home sebagai Deteksi Gerak untuk Keamanan Perumahan. Prosiding Seminar Nasional Sisfotek Vol.3 No.1 2019 ISSN 2597-3584.
- [5]. Ai-Thingker Technology Co, "ESP32-CAM Wi-Fi+BT SoC Module v1.0, Shenzhen 2017. Kale, Archita. Dhawan, Utkarsh. (2016). TOTP Based 2-Factor Authentication: Future of Security. Imperial Journal of Interdisciplinary Research (IJIR) Vol. 2 Issue. 10, 2016.
- [6]. Akshay v. Bhoyar, Shruti A. Borgave, A.S Bhandare. 2014. "Wireless Fingerprint Based Attendance System Using Zigbee Technology", International Journal of Innovative Research In Technology, ISSN: 2349-6002, Volume 1, Issue 11.
- [7]. Ravishankar Yadav, Sumita Nainan. 2014. "Design of RFID Based Student Attendance System with Notification to Parents Using GSM", International journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol.3