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[20] Mohamed Haghghat, Saman Zounouz, Mohamed Abdel, CloudID: TrustWorthy Cloud Based and cross-enterprise bio metric identification, Elsevier- Expert Systems with Applications, Vol. 42, No. 21, pp. 7905-7916.

#### REFERENCES

- [1] Omar Asif, Md. Belayat Hossain, Mamun Hasan, Mir Toufikur Rahman, Muhammad E. H. Chowdhury, Fire-Detectors Review and Design of an Automated, Quick Responsive FireAlarm System Based on SMS, Scientific Research Publishing Inc, 28th August 2014.
- [2] [www.systemsensor.com.] J. San-Miguel-Ayanz and N. Ravail, Active fire detection for fire emergency management: Potential and limitations for the operational use of remote sensing, *Natural Hazards*, vol. 35, no. 3, pp. 361376, 2005.
- [3] Z. Liu and A. K. Kim, Review of recent developments in fire detection technologies, *Journal of Fire Protection Engineering*, vol. 13, no. 2, pp. 129151, 2003.
- [4] T. Celik, H. Demirel, H. Ozkaramanli, and M. Uyguroglu, Fire detection using statistical color model in video sequences, *Journal of Visual Communication and Image Representation*, vol. 18, no. 2, pp. 176185, 2007.
- [5] Y. Dedeoglu, B. U. Treyin, U. Gdkbay, and A. E. Cetin, Real-time fire and flame detection in video. in *ICASSP (2)*, 2005, pp. 669672.
- [6] A. Somov, D. Spirjakin, M. Ivanov, I. Khromushin, R. Passerone, A. Baranov, and A. Savkin, Combustible gases and early fire detection: an autonomous system for wireless sensor networks, in *Proceedings of the 1st International Conference on Energy-Efficient Computing and Networking*. ACM, 2010, pp. 8593.
- [7] D. Krstinic, D. Stipani cev, and T. Jakov cevi c, Histogram based smoke segmentation in forest fire detection system, *Information Technology and Control*, vol. 38, no. 3, 2015.
- [8] C.-B. Liu and N. Ahuja, Vision based fire detection, in *Pattern Recognition, 2004. ICPR 2004. Proceedings of the 17th International Conference on*, vol. 4. IEEE, 2004, pp. 134137.
- [9] B. U. Toreyin, Y. Dedeoglu, and A. E. Cetin, Wavelet based real-time smoke detection in video, in *Signal Processing Conference, 2005 13th European*. IEEE, 2005, pp. 14.
- [10] T. elik, H. Ozkaramanli, and H. Demirel, Fire and smoke detection without sensors: image processing based approach, in *15th European signal processing conference, EUSIPCO, 2007*, pp. 147158.
- [11] S. R. Das, S. Chita, N. Peterson, B. A. Shirazi, and M. Bhadkamkar, Home automation and security for mobile devices, in *Pervasive Computing and Communications Workshops (PERCOM Workshops), 2011 IEEE International Conference on*. IEEE, 2011, pp. 141146.
- [12] Jain AK, Ross A, Prabhakar S. An introduction to biometric recognition. *IEEE Transactions on Circuit and Systems for Video Technology*. 2004 Jan; 14(1):420.
- [13] Biometrics. Available from: <http://www.biometric-solutions.com/solutions/index.php>
- [14] Mohanaprasad K, Pawani JK, Killa V, Sankarganesh S. Real time implementation of speaker verification system. *Indian Journal of Science and Technology*. 2015 Sep;8(24). Doi:10.17485/ijst/2015/v8i24/80193.
- [15] Urmila Shrawankar and Vilas Thakare, Techniques for Feature Extraction in Speech Recognition System : A Comparative Study, Dept. of Computer Science, SGB Amravati University, Amravati, 2013. Systems 51, On page(s): 394 404 (2011).
- [16] W. Zhao, R. Chellappa, P. J. Phillips, and A. Rosenfeld, Face recognition: A literature survey, *ACM computing surveys (CSUR)*, Vol. 35, no. 4, pp. 399458, 2003.
- [17] Hong L, Jain A. Integrating face and fingerprints for personal identification *Proceedings 3rd Asian Conference on Computer Vision; HongKong, China. 1998*. p.1623.
- [18] Ibrahim R, Zin ZM. Study of automated face recognition system for office door access control application. *IEEE 3rd International Conference on Communication Software and Networks (ICCSN)*; Xian. 2011. p. 1326.
- [19] Pakutharivu P, Srinath MV. A comprehensive survey on fingerprint recognition systems. *Indian Journal of Science and Technology*. 2015 Dec; 8(35). Doi: 10.17485/ijst/2015/ v8i35/80504.