| [8] [9] [10] | Chen, TH., PH. Wu, and YC. Chiou. An early fire-detection method based on image processing. in 2004 International Conference on Image Processing, 2004. ICIP'04. 2004. IEEE. Marbach, G., M. Loepfe, and T. Brupbacher, An image processing technique for fire detection in video images. Fire safety journal, 2006. 41(4): p. 285-289. Töreyin, B.U., et al., Computer vision based method for real-time fire and flame detection. Pattern recognition letters, 2006. 27(1): p. 49-58. Han, D. and B. Lee. Development of early tunnel fire detection algorithm using the image processing, in International Symposium | [29] [30] [31] | temporal flame modeling and dynamic texture analysis for automatic video-based fire detection. IEEE transactions on circuits and systems for video technology, 2014. 25(2): p. 339-351. Muhammad, K., J. Ahmad, and S.W. Baik, Early fire detection using convolutional neural networks during surveillance for effective disaster management. Neurocomputing, 2018. 288: p. 30-42. Fan, Z., et al., Dim infrared image enhancement based on convolutional neural network. Neurocomputing, 2018. 272: p. 396-404. Zhang, Hj., N. Zhang, and Nf. Xiao, Fire detection and |
|--------------------|--|----------------------|---|
| Inter | national Journal of Intelligent Systems and Applications in Engineerin | ng | identification method based on visual attention mechanism. Optik, IJISAE, 2021, 9(4)0, 171–177 176 |

p. 1293-1317.

[28] Dimitropoulos, K., P. Barmpoutis, and N. Grammaiidis, Spatio-

temporal flame modeling and dynamic texture analysis for automatic